



The Army's Chesapeake Review

April 1997



Federal Agencies Committee Meeting Highlights

A Federal Agencies Committee (FAC) meeting was held on February 27, 1997, at the Chesapeake Bay Program Office (CBPO) in Annapolis, Md. Announcements and highlights from this meeting included:

- New representatives for the Nutrient, Research, and Habitat Workgroups of the FAC were selected. The elected representatives will work with the current chairpeople to ensure a smooth transition.
- Carol Browner, administrator of the U.S. Environmental Protection Agency (EPA) and Executive Council (EC) Chairperson, wants to participate in Bay-related events, particularly those in the Baltimore/Washington area. Contact JanMichael Graine if interested (410-671-1687).
- A DoD Chesapeake Bay Conference has been scheduled for November 18 and 19, 1997 in Norfolk, Va.
- The National Capital Park and Planning Commission is interested in participating in the Federal Land Stewardship Workgroup.
- The CBPO is developing GIS maps of forest buffers in the Bay watershed to develop tracking criteria for the forest buffer goal. The office wants to update the federal facility boundaries with the most accurate, detailed information. Contact Graine with your installation's information.
- Browner has established two goals for the new program entitled, the Wetlands Initiative of the EC Chair. One goal is to work with local communities and identify the most valuable wetlands in one watershed of each jurisdiction by the 1997 EC meeting. The long-term goal for the program is to complete all of the watersheds where there is local interest and cooperation within the next 10 years. The Wetlands Workgroup of the Living Resources Subcommittee is overseeing the effort, establishing the criteria for the program, and identifying the priority watersheds. Six new employees and \$300,000/year have been allocated to help implement this program.

Implementation Committee Meeting News

An Implementation Committee (IC) meeting was held on March 13, 1997, at the CBPO in Annapolis, Md. Announcements and highlights from this meeting included:

- The Land, Growth, and Stewardship Subcommittee announced its five major areas of work, which include providing technical assistance and communicating information to land use decision-makers; developing trend analysis of Bay population and related data; developing public appreciation and stewardship of the Bay; protecting sacred places; and conducting public education and outreach efforts.
- The Natural Resource Conservation Service (NRCS) has partnered with the West Virginia Soil Conservation Agency and area landowners to establish the Potomac Headwaters Land Treatment Watershed Protection Project. The purpose of the project is to improve and maintain the water quality in the Potomac Headwaters by providing landowners with low interest financing to develop best management practices that reduce non-point source pollution. The program has also established a state tax credit for conservation agricultural equipment and structures.
- The final Conservation Reserve Program (CRP) rules have been announced by the Clinton Administration and can be found on the Federal Register. The program identified the Chesapeake as one of four national conservation priority areas.
- The Toxic Subcommittee gave a presentation on the revised Toxics of Concern (TOC) list. The 1996 list validates the original 1990 list with only a few changes. The list will not become final until the Science and Technical Advisory Committee (STAC) and the IC review and approve the document.

State of the Bay: Weather Patterns

Dr. Jerry Bell, a research meteorologist with the National Oceanic and Atmospheric Administration's (NOAA) Climate Prediction Center, gave a presentation on weather patterns at the March 13, 1997 IC meeting.

According to Bell, the El Nino/La Nina Oscillation (ENSO) and the North Atlantic Oscillation (NAO) are long-term atmospheric circulation patterns that affect weather patterns on a planetary scale. The ENSO occurs in the South Pacific and affects the large-scale distribution of tropical rainfall and is the energy source for the Pacific jet stream. During an El Nino phase, warm water shifts eastward and the weather tends to be wetter and warmer. During La Nina, warm waters shift westward and the weather tends to be drier and cooler.

The NAO alters the jet stream flow and storm tracks in the North Atlantic and affects the weather from North America to Central Asia. A negative NAO causes cold, dry air to accumulate over North America. There is no consistent signal from the positive phase of the NAO.

Both the ENSO and the NAO affect the Chesapeake region, making it difficult to predict weather. The greatest effects from these two oscillations occur in the winter and spring. During the winter of 1994-1995, we witnessed El Nino conditions with a positive NAO. Conditions reversed in 1995-1996, causing severe winter storms. The NAO was negative during the winter of 1996-1997, but the weather was not as cold and snowy. If we remain in this negative NAO, we can expect generally cooler temperatures. The amount of precipitation will depend on the ENSO and other factors.



Installation Forms Partnerships to Restore Area Watersheds

Aberdeen Proving Ground (APG) has successfully partnered with local communities, Harford County, and the State of Maryland to restore and protect its streams, their associated watersheds (or drainage areas), and ultimately the Chesapeake Bay. The partnerships began in 1993, when representatives from the town of Aberdeen, Md., approached the installation with ideas for an in-stream stormwater management plan for a small tributary in the Swan Creek watershed. This tributary had been degraded by trash accumulation and eroding banks that were the result of excess stormwater. Permits for in-stream stormwater management plans are generally not granted by the U.S. Army Corps of Engineers (USACE), because in-stream stormwater controls have the potential to negatively impact the water quality and habitat of the stream. USACE, however, indicated that a permit might be issued if the town of Aberdeen and APG could show that such a project could significantly improve the water quality of the greater Swan Creek watershed.

Being a part of the Swan Creek watershed, APG joined forces with the towns of Aberdeen and Havre de Grace, Harford County, the Maryland Department of Natural Resources (DNR), the Maryland Department of the Environment (MDE), and USACE. The team evaluated the watershed and developed a plan that would improve the water quality of the watershed. As a result of the shared expertise and effort, USACE issued a permit for an in-stream plan that included a treatment area, forebay, wetland area, and holding pond for stormwater management.

The management plan addresses several initiatives that will further improve the quality of the watershed, such as eradicating exotic and invasive species and implementing a variety of habitat restoration measures. The retail company Walmart, for example, has supplied funds for a project that will reduce fish passage barriers by breaking down obstructing debris in Swan Creek. APG's Department of Public Works, in the meantime, is removing concrete ditches to establish more natural stormwater run-off measures. The installation is also converting improved areas into natural habitat and establishing forest buffers along streambanks in accordance with Maryland's Chesapeake Bay Critical Areas Act and the Chesapeake Bay Program's Riparian Forest Buffer Initiative.

The plan also encourages "best management practices" (BMPs) in the Swan Creek watershed to reduce non-point source nutrient pollution in the stream. These efforts include streambank reforestation, changing livestock grazing areas to reduce fecal inputs into the stream, and the cleanup of a variety of areas in the watershed that had been used for dumping.

The partnership for the Swan Creek Watershed Management Plan resulted in a non-adversarial relationship among various government agencies that enabled them to develop a plan that disregarded man-made boundaries and considered the ecosystem as a whole. Whether their land was located at the headwaters of the stream or at its mouth, the partnership allowed the various participants to have a say in the destiny of their water quality.

The effort increased communication and trust among the involved agencies, encouraged public involvement, established funding channels and mechanisms, and eased the permit application process.

APG's Swan Creek partnership has evolved into more programs and projects. The installation is working with many of the same partners to create management plans for watersheds throughout Harford County that are either a part of the installation or affect the installation's drinking water supply. These plans are in varying stages of development. Through the Romney Creek Watershed Management Plan, the installation is trying to establish a cooperative agreement with USACE, MDE, and DNR to develop a Special Area Management Plan (SAMP).

SAMPs are comprehensive site-specific plans that are designed to protect natural resources while allowing for reasonable growth. The process includes a complete evaluation of the watershed that identifies potential problem areas and wetland mitigation sites and provides recommendations for improved land and water management. If approved, APG's SAMP will establish a general wetland permit for the installation that will reduce the installation's



permitting requirements.

APG has also become a partner in the U.S. Environmental Protection Agency Chesapeake Bay Program's Tributary Strategy Program. This program was designed to help the signatory states of the Chesapeake Bay Agreement (Pennsylvania, Maryland, Virginia, and the District of Columbia) reach their Year 2000 goal of a 40 percent reduction of nutrient levels in the Bay. The program sets specific nutrient reduction targets for each of the subwatersheds within the states.

Because APG's property resides in Maryland's Upper Western Shore Tributary, installation staff were invited to participate in the associated Tributary Strategy Committee. APG staff are helping the committee identify nutrient inputs to the Bay and develop a strategy to reduce those inputs. Installation staff are also participating in the committee's nutrient reduction re-evaluation program and are providing information from their Swan Creek Management Plan and nutrient reduction practices to help the committee form a complete and accurate picture of nutrient reduction practices in the subwatershed.

This newsletter is produced under Contract No. DACA65-94-D-0100 for USAEC. Please contact Janmichael Graine, USAEC, at (410) 671-1687, DSN 584-1687, or jsgraine@aec1.apgea.army.mil with any questions, comments, or installation success stories.

This newsletter is distributed via mail, e-mail, or through the **Army's Chesapeake Bay Initiative homepage**. The homepage's address is <http://www.hqda.army.mil/acsimweb/env/cbi>. If you want to be on the mail or e-mail distribution list, contact Susan Phelps, Horne Engineering Services, Inc., at sphelps@horne.com or call (703) 641-1100.