



Federal Agencies Committee Meeting Highlights

The Federal Agencies Committee (FAC) met on August 20 and on November 12, 1998 at the Chesapeake Bay Program Office in Annapolis, Maryland. The FAC also held a meeting on October 6, 1998 at Langley Air Force Base. Announcements and highlights from these meetings included:

- The 1998 *Federal Agencies Chesapeake Ecosystem Unified Plan* (FACEUP) was signed by 24 agencies at a November 5th signing ceremony hosted by Fort Lesley J. McNair. The agreement reflects progress made since the 1994 Agreement and will set new commitments for federal agencies, building on the themes of the 1998 Clean Water Action Plan. The agreement contains 50 separate initiatives for federal agencies to promote partnerships, protect priority watersheds, protect living resources, reduce nutrient and toxics, guard human health, provide research, and support smart growth. (Please see a story about the signing ceremony on page 5.)
- The U.S. Army Corps of Engineers is taking the lead in forming a workgroup to develop the 1999 Biennial Update to the Federal Workplan for the Anacostia River Watershed. The update will focus on three main areas: wet weather issues, toxics/contamination, and low-impact development/land management. Because the issues overlap with the Combined Sewer Overflow/Storm Water (CSO/SW) panel recommendations, this workgroup may be combined with the CSO workgroup.
- The National Aeronautics and Space Administration (NASA) and the U.S. Environmental Protection Agency (EPA) have signed a Memorandum of Agreement to provide for enhanced cooperation between NASA and the EPA as partners in the Chesapeake Bay Program.
- Jerry Griswold, Natural Resources Conservation Service (NRCS) and Chair of the Nutrient Reduction Workgroup, stated that nutrient reduction site assessments were done at Langley Air Force Base and Fort Monore. He also mentioned that site assessments are scheduled at Raystown Lake and the National Zoo.
- Four new Chesapeake Executive Council directives were signed at the December 8, 1998 Executive Council meeting, which was held at the National Aquarium in Baltimore. The four directives are Chesapeake 2000, Accelerating Bay Restoration Through Implementation of Innovative Technologies, Chesapeake Bay Program Education Initiative, and Interstate Animal Waste Distribution and Use Technology.
- The Federal Highway Administration (FHWA) held a September workshop on landscaping with native vegetation. Many participants were interested in developing native landscaping projects for their highways. One common difficulty in implementing BayScapes (native landscaping in the Chesapeake Bay region) was reported to be education of high level administrators and the general public to the benefits of native landscaping. A second workshop focusing more on maintenance issues is scheduled for next year in Pennsylvania.
- Maryland has committed to implementing a BayScapes demonstration project along Interstate 95 near Laurel.
- Rich Takacs from National Oceanic and Atmospheric Administration (NOAA) is the new chair of the Habitat Restoration Workgroup.
- The U.S. Army participates in a major research effort at Fort Detrick concerning *Pfisteria*.
- Nine post offices are using a special Chesapeake Bay postmark to celebrate the 15-year anniversary of the Chesapeake Bay Program.

Quality Management Board Meeting Highlights

A Department of Defense (DoD) Quality Management Board (QMB) meeting was held on October 20, 1998 at the Patuxent Naval Air Station. Announcements and highlights from this meeting included:

- Aileen Smith stated that 1999 Legacy funding is available for DoD Chesapeake Bay Projects.
- The Legacy office pre-proposal review indicated that there would be funding approved for the restoration of native submerged aquatic vegetation (SAV) at DoD installations where SAV habitat suitability analyses initiated in 1998 indicated water quality and habitat will support SAV. The funding will also bring new installations into the habitat suitability-monitoring program.
- The Legacy office pre-proposal review indicated that there would be funding approved for two technical workshops, personnel training, and installation management plans for Common Reed (*Phragmites australis*) at 15 to 20 installations in the Chesapeake Bay watershed. The funding will be targeted at installations with known areas of invasive species and includes identification of areas that warrant a focused control effort. The QMB agreed to request additional funding to begin implementing the management plans at test installations.
- The QMB agreed to request additional money from 1999 Legacy funds to conduct stream assessments on Maryland installations using a rapid assessment protocol implemented by the Maryland Department of Natural Resources and the Maryland Conservation Corps. Ms. Smith will investigate whether the Maryland Conservation Corps may be available to conduct a stream assessment in Virginia or Pennsylvania as part of a technology transfer.
- The QMB agreed to request funding to support riparian forest buffer restoration on DoD installations.
- The Maryland Department of Agriculture, Maryland Nutrient Management Program, is offering nutrient management courses for a minimal fee.
- Maryland Department of Natural Resources, in conjunction with the NRCS, U.S. Army Corps of Engineers, and EPA, offers free wetland training courses to federal and state employees.

Forming Partnerships to Save the Bay

By Kathy Stroud

Submerged aquatic vegetation (SAV) serves as critical habitat for many Bay species, including crabs and finfish, and is one of the main indicators used to judge the success of the Chesapeake Bay Program's water quality restoration efforts. In 1993, Chesapeake Bay Program partners agreed to an interim goal of restoring SAV to a total of 114,000 acres. To help achieve this goal, the U.S. Army has established several partnerships to restore the Chesapeake Bay.

One such example is Aberdeen Proving Ground (APG). APG established an informal partnership with the University of Maryland and an installation/interagency partnership with the U.S. Army Research Laboratory (U.S. ARL) and the U.S. Army Environmental Center (U.S. AEC) to initiate an SAV mapping, monitoring, and restoration program. The partnership expanded to include the local Harford Community College and the U.S. Fish and Wildlife Service, who provided technical guidance and support. The team continues to expand its efforts, and is creating a public outreach video with the Chesapeake Bay Program, developing restoration guidance, and assisting other Bay area installations in establishing their own SAV programs.

The U.S. Army is also involved in the joint Department of Defense (DoD)/Alliance for the Chesapeake Bay (Alliance) SAV monitoring and restoration efforts. For fiscal year (FY) 98, the DoD Legacy Resources Management Program allocated approximately \$150,000 for water quality monitoring and submerged aquatic vegetation (SAV) restoration to the Alliance and seven installations partnering with the Alliance in its efforts. Additional funds have been requested for FY 99 to continue with the restoration efforts. The Alliance is working with Fort Monroe; Fort Eustis; Naval Surface Warfare Center, Indian Head Division; Naval Surface Warfare Center, Dahlgren; U.S. Naval Academy and Naval Complex, Annapolis; and Langley Air Force Base to establish water quality monitoring programs and map existing SAV at these installations. Water Quality will be monitored for secchi depth (a measure of light penetration), dissolved inorganic nitrogen and phosphorous, total suspended solids, and chlorophyll a. Installation staff, primarily the natural resource managers, will be responsible for collecting the water quality data on a biweekly basis. The Alliance is

providing technical advice on implementing the program and database management support. The Alliance is also providing some equipment to Aberdeen Proving Ground's existing SAV program. The water quality data collected, along with other SAV restoration siting criteria such as current and wave energy and sediment quality will be used to determine potential SAV restoration locations.

Once restoration areas have been identified, test plots will be planted. One test plot was planted at the Naval Academy in the end of July. The plantings were a joint effort by the Naval Academy Natural Resources staff, the Alliance, and the National Aquarium, which provided dive support and underwater videography. The majority of the SAV planted was widgeon grass (*Ruppia maritima*) along with some sago pondweed (*Potamogeton pectinatus*), wild celery (*Vallisneria americana*), and redhead grass (*Potamogeton perfoliatus*). A number of different planting techniques are being tested, including transplanting SAV bundles and mesh mats containing rooted plants. The success of the restoration effort is being monitored and the information collected will be incorporated into future test plantings. The Alliance is hoping to do a second planting before the end of the year. Fort Monroe is one of the sites being considered.



From left to right: Professor Stan Kollar, Harford Community College and Julie Bortz, AEC SAV Project Coordinator plant submerged aquatic vegetation

Plants used in the restoration effort were laboratory propagules obtained from Horn Point Laboratory in Cambridge, Maryland and the U.S. Department of Agriculture laboratory in Beltsville, Maryland. Using micro-propagation in the laboratory to produce propagules is a recent technique that provides plants for restoration without harvesting from established SAV beds. Laboratory propagules and nursery stock are the preferred sources for restoration planting because existing beds are not harmed to collect them. However, laboratory propagation techniques have not been successful for all species, including the important eelgrass (*Zostera marina*).

The end goals of the joint DoD/Alliance SAV monitoring and restoration efforts are to establish water quality monitoring and SAV mapping programs at seven DoD installations, to establish and monitor test SAV restoration beds, and to develop a briefing and a how-to slide show on SAV restoration.

Implementation Committee Meeting Highlights

The Implementation Committee (IC) held three fall meetings on August 27, October 8, and November 19, 1998 at the Chesapeake Bay Program Office (CBPO) in Annapolis, Maryland. Announcements and highlights from these meetings included:

- As part of the effort to meet the 40% nutrient reduction goal by the year 2000, the Nutrient Subcommittee has identified major industrial dischargers through which nutrient loading can be significantly reduced. The Chesapeake Bay Program will work through the states of Maryland, Virginia, and Pennsylvania to upgrade wastewater treatment at these sites.
- The latest version of the Priority Nutrient/Sediment Reduction Areas Protocol was submitted to the IC for comment. The protocol is designed to target areas in the Chesapeake Bay Watershed with persistent high nutrient or sediment loadings and critical tidal tributary living resources and their habitats. Issues concerning the protocol and how it will be implemented were also discussed.
- The Chesapeake Bay Program is funding a study that will examine the efficiencies of nutrient-control Best Management Practices (BMPs) throughout the entire Bay watershed. This study will help decide which BMPs will be most effective in maintaining the nutrient cap.
- Tom Simpson, Maryland Department of Agriculture (MDA), announced the forming of the Nutrient Cap Policy Workgroup and asked for participants. The first meeting will be held January 6, 1999 in the Chesapeake Bay Program Office. The Workgroup plans to present policy options to maintain the nutrient cap by July 1, 1999.
- Tony Redman of Redman Johnson Associates announced that the Local Government Advisory Committee (LGAC) has approved 26 communities to be designated Bay Partners in 1997, and 16 communities are pending LGAC approval for 1998.
- Kelly Mecum presented to the IC the list of recommended recipients for the Chesapeake Executive Council's Businesses for the Bay Excellence Award.
- Gary Allen from the Center for Chesapeake Communities Outreach (CCC) reported on the CCC's financial assistance, technical assistance, education and outreach, and pollution prevention workshop programs. The programs focus on reaching out to local governments and linking broader, environmental goals to the local community in an effort to create a more sustainable Chesapeake Bay.
- The latest draft of the Community Watershed Strategy was submitted to the IC for comment. This strategy will put a process into place to translate policies at the Chesapeake Bay Program level to the local level.
- The results of the September 22nd Land Use/Land Cover workshop were presented and the recommendation was made to convene a peer review panel to determine whether the chosen baseline inventory method for wetlands and forested buffers was feasible.
- The Living Resources Subcommittee presented an update on latest crab stock indicators and the Chesapeake Bay Alosid Management Plan which was approved by the IC to send to the Principals' Staff Committee (PSC).
- Mike Haire presented the Toxics Subcommittee's response to the Scientific and Technical Advisory Committee (STAC) panel's review of the Toxics of Concern (TOC) List. No changes to the list will be made until the future use of the TOC list was determined.
- Joe Winfield of Old Dominion University presented the preliminary results of a pilot toxics characterization project in four areas of the Chesapeake Bay. The goal of this project is to conduct toxic characterizations and to identify and target regions of the Chesapeake Bay with toxic impacts. A preliminary toxic characterization will be available in January 1999.
- Scott Phillips from the U.S. Geological Survey provided an overview on the discharge, nitrogen loads, and residence time of groundwater in the Chesapeake Bay watershed. Mr. Phillips said that groundwater contributes an average of over 50% of the total water flow to the Chesapeake Bay and that it takes an average of 5 to 10 years for the groundwater to travel from its source to the Bay.
- Claire Buchanan, Interstate Commission for the Potomac River Basin, (ICPRB), Larry Harding (Horn Point Environmental Laboratory of the University of Maryland's Center for Environmental Sciences, UMCES), Herb Austin (Virginia Institute of Marine Science), and Ed Houde (Chesapeake Biological Laboratory of UMCES) each presented information regarding trophic changes in Chesapeake Bay open water habitat. While the four speakers agreed that trophic levels are changing, they did not come to a consensus on whether these changes are natural or human-induced. The IC members asked that the speakers discuss their theories with each other to find any common ground.
- Verna Harrison, Maryland Department of Natural Resources, updated the IC on the November Principal Staff Committee (PSC) meeting. The PSC approved the 1999 Directives (New Technology, Chesapeake 2000, Education, and Animal Waste Transport), the Community Watershed Strategy Adoption Statement, and the Adoption Statement for the Guidelines for Developing and Revising Fishery Management Plans. These documents were presented to the Executive Council (EC) at their December meeting.
- Jon Capacasa from the CBPO presented the latest budget status report, which is almost complete. The status report shows how the Chesapeake Bay Program will allocate its \$18,880 million in funds for FY 99.



State of the Bay Update

Maryland Clean Water Action Plan

Paul Massicot of the Maryland Department of Natural Resources' Resource Assessment Service, presented Maryland's Draft Clean Water Action Plan to the IC at their August 27th meeting. The Federal Clean Water Action Plan, launched by President Clinton in February 1998, requires all states to prepare Unified Watershed Assessments to evaluate the condition of their watersheds based on clean water and other natural resource goals (e.g., living resources, physical habitat). Based on the findings of the Unified Watershed Assessments, each state must identify Watershed Restoration Priorities. This involves selecting watersheds that are in most need of restoration actions. Finally, each state must devise Watershed Restoration Action Strategies to restore the priority watersheds. Maryland's Clean Water Action Plan is being prepared in response to these requirements.

Maryland's Draft Plan outlines the criteria used for its Unified Watershed Assessment and identifies its Watershed Restoration Priorities. In accordance with the Federal Clean Water Action Plan, the Resource Assessment Service first delineated its watersheds based on an eight-digit hydrologic unit scale established by the U.S. Geological Survey. The Service then divided the 20 watersheds into three categories: Category One - Watersheds Needing Restoration, Category Two - Watersheds Needing Preventive Actions to Sustain Water Quality and Aquatic Resources, and Category Three - Pristine or Sensitive Watersheds Needing Extra Protection. The Resource Assessment Service examined all Category One watersheds to see if they warranted inclusion on the Watershed Restoration Priorities list. A watershed was designated as a priority when it failed at least half of the criteria for which data was available. Additional watersheds will be added to the priority list based on the severity of negative impacts (e.g., Pfiesteria outbreaks), coordination with adjacent states on interstate watersheds, and continued evaluation of new information. Maryland's Clean Water Action Plan also recognizes watersheds that fall into both Categories One and Three. These watersheds may warrant special attention to ensure that pristine resources are not lost.



Owl Run and Nomini Creek Watershed Projects

Jack Frye of the Virginia Department of Conservation and Recreation (VA DCR), presented the monitoring results for the Owl Run and Nomini Creek watersheds to the IC at their October 8th meeting. The Owl Run and Nomini Creek Watershed/Water Quality monitoring projects were initiated in 1985 to demonstrate the effectiveness of agricultural best management practice (BMP) implementation in improving water quality.

Owl Run is characteristic of a piedmont watershed in Virginia and was chosen due to its isolated conditions, and because it historically had not been a highly treated watershed. Results from Owl Run indicate that BMPs are very effective. BMPs implemented in the Owl Run watershed included conservation tillage, sod waterways,

protection of highly erodible lands, filter strips, dairy loafing lot systems, animal waste storage facilities, and implementation of nutrient management plans. Monitoring conducted included groundwater, meteorological conditions, land use, land cover, and surface water. Preliminary results suggest substantial reductions in nutrient loading in the Owl Run watershed due to BMP implementation. Although annual sediment loss at Owl Run is typically low due to soil type, post-BMP results showed a six percent reduction in acreage loss. In addition, there was a 31 percent reduction in annual loading of total nitrogen and a 43 percent reduction in annual loading of total phosphorus.

Nomini Creek is characteristic of a coastal plain watershed in Virginia. The primary BMPs implemented in Nomini Creek are conservation tillage, nutrient management, and structural BMPs in the critical areas. Analysis of the data in the Nomini Creek watershed has been complicated by ground water lag time and results will not be available until November 1998. Preliminary results do not show as significant reductions as the Owl Run results. This may be due to agriculture in Nomini Creek watershed uses more commercial fertilizers, involves more row cropping, and fewer animals than the Owl Creek Watershed.

(Information taken from PSC Report, EC Directives.)

Blue Crab Status



Derek Orner, NOAA, presented the status and trends on the Blue Crab using commercial landings and trawl surveys to the IC on November 19, 1998. There has been a decrease in total commercial harvest landings in Maryland. Although the numbers are not as low as they were in 1992, they are below what occurred in 1997 and what was expected for 1998.

Blue crabs fit into one of three age categories: age zero (0-59 mm), age one (60-119 mm), and age two (males greater than or equal to 120 and all mature females). The age trends by commercial landings in Maryland for 1998 are as follows. For age zero, the landings have been lower than in the previous two years, but are about the same as the 1977 through 1997 average. Age one crab landings have increased slightly compared to 1997 landings, but are still lower than the 1977 through 1997 average. For age two, the landings are also slightly lower than the 1977 through 1997 average. Through July 1998, the Virginia harvest was about two percent higher than average even though there was a major decline in Maryland. Commercial landings, however, are not a good indicator of abundance.

There are no clear answers as to why crab numbers are below average. The winter dredge survey in Maryland did not show many age zero crabs, but larvae were abundant. Perhaps the level of effort has decreased due to a lack of crabs.

The Blue Crab Advisory Report will be published in May 1999. The Bi-state Blue Crab Advisory Committee (BBCAC) are discussing several issues including setting a target for a sex-specific mortality rate, investigating longevity, investigating implications of reporting changes in Maryland and Virginia, developing criteria that would define growth overfishing and its impact on stock, and re-evaluating gear saturation analysis.

Army Partners Present a Storm Water Management Workshop

By Shana Wales

The Army's Northern Regional Environmental Office and the Army's Chesapeake Bay Program hosted a Storm Water Management Workshop on November 17-18, 1998 at the Chemical Demilitarization Training Facility in Aberdeen Proving Ground, Maryland. Ninety-four people attended the workshop from a variety of organizations including Department of Defense (DoD), private consulting companies, U.S. Postal Service, U.S. Geological Survey (USGS), U.S. Environmental Protection Agency (EPA), General Services Administration (GSA), and National Aeronautics and Space Administration (NASA). DoD attendance included members from all major services.

Day 1: The subject matter for the first day concentrated on storm water regulations and issues. The workshop began with a welcome from Colonel Edward Newing. Colonel Newing noted the timeliness of the workshop given the publication of the proposed Phase II Storm Water Regulations and the Clean Water Action Plan (CWAP), and the recent signing of the Chesapeake Bay Agreement entitled, *Federal Agencies Chesapeake Ecosystem Unified Plan (FACEUP)*. Colonel Newing then recognized the speakers who came from various agencies and regions of the United States. The first speaker for the day was Mr. Richard Scholze, U.S. Army Corps of Engineers, Construction Engineering Research Laboratory. Mr. Scholze gave a broad overview of storm water management including its history, factors that affect runoff, and water quality programs and regulations. His presentation also covered typical sources and activities that generate point and non-point source pollution, the effects of urbanization on watersheds, and general solutions to water quality concerns.

Next, Mr. Joe Battista, Virginia Department of Conservation and Recreation, spoke about current storm water issues. He discussed the three primary issues that affect storm water management in Virginia. These issues include the following:

- Siting of storm water management facilities in waters of Virginia. Locations of regional storm water management facilities conflict with floodplain management and wetlands and perennial stream management.
- Inconsistent storm water management criteria among regulatory agencies. Agencies can use either performance-based water quality criteria or technology-based water quality criteria.
- Stream channel erosion criteria. Some of the criteria are not applicable to all situations.

Ms. Rebecca Hanmer, EPA Region III, spoke about the Chesapeake Bay Program's approach to storm water management. She discussed the commitments of the FACEUP that relate to storm water management including the pledge to develop "a mechanism to implement wet weather pollution prevention on Federal facilities in the Anacostia River and Rock Creek watersheds." The FACEUP also includes commitments to control nutrient and toxics emphasizing non-point source controls and support Smart Growth.

After a short break, Ms. Mary Letzkus, EPA Office of Watersheds, discussed regulatory requirements for storm water management. Ms. Letzkus gave an overview of the current Federal storm water program including Phase I regulations, described the Total Maximum Daily Load (TMDL) program and what impacts it will have on storm water management, and briefly covered the CWAP and upcoming EPA Storm Water Phase II program.

After lunch, the topic of discussion was proposed regulatory requirements and guidance for storm water management. The first speaker on the topic was Mr. St. Clair Thompson of Tetra Tech who spoke about the proposed storm water Phase II regulations and how these regulations will affect federal facilities, particularly DoD installations.

The second speaker was Mr. Ed Miller with the Department of Defense. Mr. Miller discussed the key components of the CWAP, the organizational structure that has been established to implement the CWAP, and Federal agency (including DoD) action items.

Finally, Mr. Dov Weitman with the EPA spoke about the proposed guidance on implementing the Federal consistency provisions established by Section 319 of the Clean Water Act. Section 319 of the Clean Water Act addresses non-point sources of pollution, particularly from agriculture and forestry activities, as well as urban runoff.

The group ended day one with a wrap-up discussion and then boarded a bus to Baltimore for a guided tour of the National Aquarium. Mr. Glenn Page, the Senior Manager for Conservation at the Aquarium, led the tour and discussed research projects the National Aquarium is currently undertaking.

Army Partners Present a Storm Water Management Workshop *(Continued)*

Day 2: The subject matter for the second day focused on storm water management practices and new technologies. The workshop began with a presentation from Mr. Al Todd of the U.S. Forest Service. Mr. Todd spoke about the importance of riparian buffers to water quality. He referred to buffers as the link between land and water. Among other things, buffers reduce erosion, remove nutrients, and provide the basis for the aquatic food chain.

Next, Ms. Britt Slattery, U.S. Fish and Wildlife Service, spoke about the importance of Conservation Landscaping, or “BayScaping” as it is called in the Chesapeake Bay Program. Conservation landscaping reduces the need for fertilizers and pesticides, does not require as much watering or mowing as a turf lawn, and provides habitat for native wildlife. Native grasses, trees, shrubs, and wildflowers also help to reduce and clean runoff from paved or turfed areas.

Mr. John Kornuc, Naval Facilities Engineering Service Center, discussed constructed wetlands for treatment of non-point source pollution in storm water. Wetlands protect receiving waters, comply with water quality goals, reduce flood hazard and erosion, enhance community relations, require low operations and maintenance costs, and conserve and enhance natural resources. Additionally, wetlands can treat elevated levels of sediments, nutrients, oxygen demanding contaminants, pathogens, pesticides and herbicides, poly-aromatic hydrocarbons, and chlorinated solvents.

After a short break, Mr. Hap Pritchard, Naval Research Lab, built upon Mr. Kornuc’s presentation with a discussion of the Biophysically Integrated Storm Water Treatment (BIST) System. The BIST System sends storm water through an underground treatment cell to remove solids. The water is then transported to a recirculation cell, from which water flows to a constructed wetland. Some of the water that seeps down into the soil in the wetland moves back into the recirculation cell and is circulated back to the wetland. Water from the wetland also flows to the nearest waterway. By the time that water leaves the BIST System, solids have settled out and pollutants have been removed or greatly reduced.

Mr. Neil Weinstein, Low Impact Development Center, spoke about low impact development (LID). LID attempts to

minimize, detain, and retain the post development runoff volumes close to the source to imitate predevelopment hydrologic functions. LID can be used on residential, industrial, and commercial developments. Mr. Weinstein discussed the limitations of conventional storm water management with the group and compared them to the benefits received by using LID. He also presented a variety of options for areas with limited space, such as a retention area under a sidewalk or on a rooftop.

After lunch, Mr. Bob Howard, CDS Technologies, discussed new technologies designed to remove gross pollutants and contaminants from storm water. A continuous deflective separation (CDS) device retains captured pollutants, has no moving parts, is low maintenance in that it eliminates worker exposure, is easy to dispose of, and has a large processing capacity. Mr. Howard went on to describe how a CDS works and its costs and efficiencies.



Workshop attendees gather at APG's Automotive Testing Facility

Mr. Thomas P. O’Connor, EPA Office of Research and Development, spoke about the EPA’s Wet Weather Flow (WWF) Research Program. The WWF Program researches combined-sewer overflow, sanitary-sewer overflow, and storm water. Current projects cover a variety of subjects from toxics characterization and treatment to runoff control using compost to source water protection. Future projects include watershed management, toxics pollution prevention, real time control demonstration, evaluation of alternative filter media, and pathogen detection.

Mr. Michael Gilbert with Aberdeen Proving Ground (APG) was the last speaker of the workshop. He told the group about Aberdeen Proving Ground’s storm water management program at the Automotive Testing Facility. The facility has a progressive storm water management program that exceeds both Federal and state requirements. The automotive testing courses follow the natural topography of the land and are essentially bare dirt or gravel. Storm water management at the facility maintains soldier safety and controls and cleans run-off from the courses. Mr. Gilbert’s presentation was a precursor to the tour of the Automotive Testing Facility that the group attended at the end of the day.

Fort McNair Hosts Federal Agencies Signing Ceremony

By Helene Merkel and Alison Cooley

On November 5, 1998, Fort Leslie J. McNair was the site where dignitaries from federal agencies, as well as representatives from Congress, gathered to sign the latest federal agencies agreement, entitled the *Federal Agencies Chesapeake Ecosystem Unified Plan (FACEUP)*. A calm wind blew over Fort McNair as the Joint Services Color Guard began the ceremony by presenting the flags of the United States, the Department of Defense (DoD), and each of the military services. Colonel Phillip L. Wilkerson, Deputy Director for Environmental Programs, officially opened the ceremony by welcoming everyone to Fort McNair. Colonel Wilkerson noted that the signing of this agreement is another milestone toward the restoration of the Chesapeake Bay.

Carol Browner, U.S. Environmental Protection Agency Administrator, and representative of the Federal Agencies to the Chesapeake Bay Program's Executive Council, was one of six speakers. Ms. Browner stated, "We come here to stand united to continue our efforts to restore the Chesapeake Bay. We stand here where the Anacostia River meets the Potomac. As we stand here at the confluence of these two bodies of water, we are reminded of the real progress we have made. But, we still have a long way to go. Serious pollution challenges remain. Toxics, nutrients, and harmful microorganisms, such as *Pfiesteria*, continue to threaten the Chesapeake Bay."

"Partnerships" was the theme for the day as officials from 24 federal agencies gathered together to sign the new agreement. Ms. Browner noted in her speech that "no one state, no one agency can do it alone. The only way to make progress is through partnerships." By signing the agreement, federal agencies agreed to be partners for the Chesapeake Bay; to protect priority watersheds; to be stewards of the Bay's living resources and habitats; to be leaders in nutrient and toxics prevention and reduction on federal lands and facilities; to be guardians of human health; to provide research, assessment, and new technologies, and to be supporters of smart growth.

The Chesapeake Bay Program Office and the Chesapeake Bay Program's Federal Agencies Committee developed the *Chesapeake Ecosystem Unified Plan*. Committee members that participated in the drafting of the new agreement included each of the military services, the U.S. Army Corps of Engineers, the U.S. Coast Guard, the U.S. Park Service, U.S. Forest Service, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, Natural Resources Conservation Service, U.S. Department of Agriculture, U.S. Postal Service, Federal Highway Administration, and the General Services

Administration. Federal agencies, including DoD, play an important role in the Chesapeake Bay restoration effort. As one of the largest federal landholders in the Chesapeake Bay watershed, DoD installations serve as demonstration sites to test new technologies from which other agencies may learn. DoD installations have also helped restore habitats and species vital to the Chesapeake Bay, and have worked to conserve important areas on realigning or closing bases. In addition, DoD installations provide public access and outreach opportunities to help area residents learn about the Chesapeake Bay ecosystem and their everyday impacts on it.

The *Chesapeake Ecosystem Unified Plan* is the second federal agencies agreement since the one signed in 1994. The recent



Dignitaries sign the new federal facilities agreement

agreement is designed to build upon the commitments in the *1994 Federal Agencies Agreement on Ecosystem Management in the Chesapeake Bay*, incorporates initiatives in the *Clean Water Action Plan*, and establishes 50 new commitments to address the Chesapeake Bay's most pressing environmental issues. Some of these new commitments include the following: supporting the development of unified watershed assessments and action plans for priority watersheds;

developing and adopting a Bay Partner Federal Facility Program; participating in the American Heritage Rivers Program for the Potomac and Upper Susquehanna Rivers; supporting research and monitoring to determine causes and effects of harmful microorganisms; identifying nutrient areas of concern; restoring 100 acres of wetlands annually; developing model lease provisions for outleases and rights-of-way to include Chesapeake Bay stewardship goals; developing and implementing nutrient management plans on all federal lands; establishing participation of federal facilities in the *Businesses for the Bay Program* to implement pollution prevention initiatives and to serve as mentors to the industry sector; employing construction design that minimizes natural area loss, adopting low impact development and best management technologies, and considering conservation landscaping and BayScapes.

The signing of the new agreement signifies the Federal Agencies' commitment to protect human health and the environment throughout the Chesapeake Bay watershed. As Ms. Browner noted, "This is a significant cooperative effort aimed at preserving one of our greatest national treasures, and we will continue to build on these efforts among federal agencies which are aimed at carrying out the President's *Clean Water Action Plan* in the Chesapeake Bay region."

Federal Agency Committee Plants Marsh Fringe

By Alison Cooley

On October 6, 1998 the Chesapeake Bay Program's Federal Agencies Committee (FAC) held their October meeting at Langley Air Force Base, Virginia. Ms. Patsy Kerr of Langley Air Force Base (AFB) made a special presentation on the Shoreline Restoration Program that was developed in July for two miles of the facility.

Ms. Kerr and four landscape architects/planners designed a 10-year plan to restore the native character of the shoreline, improve access, and create pedestrian and passive recreational niches along the Back River. By developing a walkway and passive recreation plan, the base hopes to encourage more waterfront interaction. The Base intends to use any funding sources available including Legacy, Operational, and Grant funding to complete the 10-year plan.

The wetlands proposed by the Shoreline Restoration Program will create a natural, native buffer and minimize shoreline erosion. The salt marsh stabilizes the shoreline and acts as a buffer between the land and sea. It regulates the amount of nutrients and pollutants that flow into coastal waters as a result of overland flow. Currently, Langley has a shoreline stabilization project underway for Memorial Park. The Army Corps of Engineers has designed a low toe sill along the low water mark in which *Spartina* marsh grasses will be planted. Construction is expected to begin on Memorial Park in November of 1998. The process will begin with the removal and recycling of the existing concrete for the toe of the sill, followed by the sandy material installation, and the planting and establishment of the *Spartina* marsh.

As part of the meeting agenda, an old pier connection was planted with smooth cordgrass (*Spartina alternifolia*) sprigs to connect two existing fringe marsh areas. FAC members were trained on how to harvest sprigs from existing healthy donor beds, as well as how to successfully transplant the material. Army FAC representatives who helped with the planting of the marsh areas included Mr. David Booker and Mr. Martin Elliott of the Office of the Directorate of Environmental Programs (ODEP) and Mr. Janmichael Graine of the Army Environmental Center (AEC).

Established in 1917, Langley AFB is the oldest, active Air Force Base and is home of the 1st Fighter Wing and Air Combat Command Headquarters. The Base spans 2,600 acres and has 600 acres in wetlands.



From left to right: Patsy Kerr, Langley Air Force Base shows a sprig to FAC Members: Mr. Don Maglienti and Mr. Bill Matuszeski, U.S. EPA Chesapeake Bay Program Office; Mr. David Booker, of the Office of the Directorate of Environmental Programs (ODEP); Ms. Helene Merkel, Horne Engineering Services; and Mr. Martin Elliott, ODEP



FAC Members dig holes to plant sprigs



From left to right: Mr. Don Maglienti, Chesapeake Bay Program Office, and Mr. Janmichael Graine, U.S. Army Environmental Center, plant a sprig

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