



DoD CHESAPEAKE BAY PROGRAM JOURNAL

PROTECTING THE CHESAPEAKE BAY FOR MILITARY READINESS, FOR OUR COMMUNITY, FOR FUTURE GENERATIONS

Leaders in Stewardship

By Sarah Diebel, DoD Chesapeake Bay Program

The U.S. Department of Defense (DoD) leads by example in its stewardship of natural and environmental resources by engaging volunteers with the knowledge and skills to enhance local watershed health. With the return of warmer weather and events like Earth Day and Arbor Day, DoD staff actively work to engage volunteers to make a positive environmental impact at installations and within surrounding communities. Installations host events and tours to educate and empower the public to make changes in their own lives and improve their local watersheds.

The initial results of the full Chesapeake Bay-wide Citizen Stewardship Index (Index)—the first comprehensive survey of stewardship actions and attitudes in the Chesapeake Bay watershed—found that most residents recognize the negative impacts of polluted waterways and wish to improve the environment around them. Last year, installations reported 4,454 volunteers worked on 147 citizen stewardship events, and yet the Index also revealed that there is significant potential to expand residential engagement in the Chesapeake Bay watershed. Hard-working DoD staff are committed to that effort and to making a meaningful difference at their installations and in the surrounding communities. This journal highlights some of the volunteer events held at DoD installations for Earth Day and Clean the Bay Day in 2018. Additional articles summarize the team effort among installation staff to protect degraded shorelines at Aberdeen Proving Ground (APG) and how installations can increase climate resiliency by better understanding vulnerability and risk.

For more information about the Index, check out the recent DoD Chesapeake Bay Program (CBP) fact sheet, and to learn more about other DoD stewardship achievements from last year, check out the fiscal year (FY) 2017 Annual Progress Report. The DoD CBP would like to thank the installations and individuals that contributed information and content for this journal, including:

- Don Calder, Joint Base Langley-Eustis (JBLE)
- Stacey Rosenquist and Elizabeth Fraser, Arlington National Cemetery (ANC)
- Karrie Reckley and MC3 Julio Martinez, Naval Support Activity Bethesda (NSAB)
- Tom Olexa, Naval Weapons Station Yorktown (NWSY)
- Olivia Mills and Jason Applegate, Fort A.P. Hill
- Jon Bleiweis, APG News, and Amanda Rominiecki, APG



PHOTOGRAPH RELEASED AND PROVIDED BY MC3 JULIO MARTINEZ, NAVAL SUPPORT ACTIVITY BETHESDA

DoD leads by example through its service to the community, and by empowering visitors and staff with the knowledge to improve their local watershed.

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Making an Impact on Earth Day in the Chesapeake Bay

By Stephanie Smith, Brown and Caldwell

Earth Day is a day to celebrate and enjoy the natural environment and ensure that future generations have the same opportunity. Earth Day is recognized through service and celebration at DoD installations in the Chesapeake Bay watershed. Each year, staff and visitors volunteer at installations to collect trash and debris, recycle, host educational events and festivals, or simply enjoy local natural areas through outdoor activities, such as running or fishing. Through the hard work of these volunteers, DoD installations enhance facility cleanliness, educate the public about environmental issues and how to serve as a steward of natural resources, and create opportunities for the public to enjoy the public access and recreation sites that these installations offer. This article highlights a few of the many events that occurred at DoD installations for Earth Day on April 22, 2018.

E-Waste Event

Naval Weapons Station Yorktown (NWSY) held an electronic-waste (e-waste) event and fire extinguisher turn-in, because many electronic devices (e.g., televisions and printers) contain potentially hazardous chemicals and non-degrading plastics. The Weapons Station Public Works Division (Environment and Transportation), Naval Facilities Engineering Command (NAVFAC) Qualified Recycling Program, and Defense Logistics Agency helped support the event. The NWSY event reduced the volume of waste sent to local landfills and helped protect the surrounding land and water resources. NWSY collected 30 pallets of electronic scrap with a gross weight of 14,668 pounds, eight pallets of reusable electronic materials, and more than 400 fire extinguishers, which were recycled by the Virginia Industry of the Blind. In addition, nearly 40 runners and walkers participated in the second annual Earth Day 5k, and 13 individuals participated in the Youth and Adult Fishing Derby at the Cheatham Annex.



WSY hosted a fishing derby, 5k run, and e-waste collection event to celebrate Earth Day.

PHOTOGRAPH RELEASED AND PROVIDED BY NAVFAC MIDLANT EV.

Cleanup/Beautification

Many installations celebrated Earth Day with cleanup and beautification activities. As a part of Earth Day events at Naval Support Activity Bethesda (NSAB) in Maryland, 62 volunteers picked up 1,130 pounds of trash, including 290 pounds of scrap metal, as part of their base cleanup event. NSAB recycled the scrap metal, which reduced the volume of material sent to a landfill. Additionally, Arlington National Cemetery (ANC) partnered with the National Park Service (NPS) for the annual Memorial Avenue cleanup in Arlington County, Virginia. Volunteers collected 17 pounds of cigarette butts,

plastic, bottles, paper, and clothing. ANC also provided a tour of the cemetery rain gardens and sustainable landscape features; answered questions from tour attendees; and distributed handouts on rain gardens, native plants, and downspout planters.

BMP Maintenance

Each year, Joint Base Langley-Eustis (JBLE) schedules conservation projects during Earth Day week to educate installation staff and the JBLE community on the importance of responsible environmental policies, our impact on the natural environment, and actions



A volunteer at NSAB picks up trash at an installation site. A total of 62 volunteers participated in the base-wide cleanup event.

PHOTOGRAPH RELEASED AND PROVIDED BY MC3 JULIO MARTINEZ, NSAB.

that each person can take to make the JBLE community a more sustainable and eco-friendly place to work and live. On April 23, volunteers performed maintenance on a bioretention cell adjacent to one of the dining facilities. The best management practice (BMP) was a prime candidate for the volunteer activity due to its highly visible location and outstanding maintenance needs. The installation's Stormwater Program Manager Ron Holcomb created a punch list of required maintenance activities after inspecting the BMP and reviewing the Engineering Technical Letter for this type of BMP. Together, 16 volunteers completed this necessary maintenance, and through their combined efforts, the BMP now meets original design functionality.



Volunteers from ANC and NPS removed trash and debris from Memorial Avenue in Arlington County, Virginia.

PHOTOGRAPH RELEASED AND PROVIDED BY ELIZABETH FRASER, ANC.



For the 48th observance of Earth Day, staff at JBLE found volunteers to provide needed maintenance for a BMP on the installation.

PHOTOGRAPH RELEASED AND PROVIDED BY DONALD CALDER, JBLE.

Fort A.P. Hill Celebrates Earth Day with Environmental Awareness and Community Outreach

By Olivia Mills, Environmental Technician; Jason Applegate, Natural Resources Specialist, Fort A.P. Hill, Virginia

On April 26, Fort A.P. Hill welcomed more than 1,830 visitors from 15 local schools to participate in its largest Earth Day celebration thus far. This event was supported by more than 70 public and private entities that volunteered time to exhibit educational displays and engage local youth on all aspects of natural resources and environmental management. This annual event is recognized by the surrounding community for its quality and excellence, largely due to the support it receives from a diverse spectrum of environmental organizations. Military tenants also provided a hands-on perspective of why environmental stewardship and management are essential—to maintain the quality of lands that are required to train the nation’s military forces.

Garrison Integrated Training Area Management personnel were available to teach students about the long-term

viability and sustainability of the U.S. Army’s lands. The U.S. Army’s Sustainable Range Program strives to keep Fort A.P. Hill’s training areas continually available and accessible by protecting its natural resources and achieving environmental compliance.

The students were exposed to a variety of organizations during this event, ranging from natural resources and wildlife conservation groups to outdoor recreation clubs, local sustainable farms, historic societies, and even law enforcement and military units. For many students, it is an Earth Day event like this that first comes to mind when asked about Fort A.P. Hill. This annual celebration has become the premier outreach event to engage the community on environmental awareness and conservation, while promoting sustainable military land management. This event is an ideal forum for the local youths and members of the

community to learn about the challenges with restoring the Chesapeake Bay. Exhibitors presented information on water recreation safety practices, the importance of maintaining clean waterways through proper litter disposal, and managing agricultural runoff, which is an ongoing concern in the Chesapeake Bay and wetlands nationwide.

Environmental awareness was not limited to those who visited the event—training personnel also integrated annual workforce Environmental Awareness Training. Subject matter experts within the installation Directorate of Public Works (DPW), Environmental and Natural Resources Division provided this hands-on training. Posters and displays highlighted mission-relevant aspects of Fort A.P. Hill’s Sustainability/ Environmental Management Systems Program, Hazardous Waste and Recycling, Water Quality, and Natural and Cultural Resources Management.



One exhibit allowed students to match the tree to its corresponding seed, and even take home a small sapling at the forestry exhibit!

PHOTOGRAPH PROVIDED AND RELEASED BY FORT A.P. HILL.



The Patowomeck Indians of Virginia presented artifacts and hands-on replicas from a Native American village.

PHOTOGRAPH PROVIDED AND RELEASED BY FORT A.P. HILL.



Topping the outreach from previous years, 15 local schools included Fort A.P. Hill Earth Day on their field trip schedule.

PHOTOGRAPHS PROVIDED AND RELEASED BY FORT A.P. HILL.



A partner in working for a cleaner Chesapeake Bay—the Virginia Department of Environmental Quality engaged students with natural resource stewardship practices.

PHOTOGRAPH PROVIDED AND RELEASED BY FORT A.P. HILL.



Naval Station Norfolk and Local Partners use Earth Day to Engage the Public

By Kevin Du Bois, DoD Chesapeake Bay Program

When the public are conscientious of how they affect nearby water sources—and take actions to reduce these effects and restore critical ecosystem functions—protecting and restoring water bodies like the Chesapeake Bay becomes an achievable reality. **The Chesapeake Bay Program aims to do just that, by improving water quality, restoring critical marine habitats, and reducing energy use and greenhouse gas emissions.** Our challenge as educators is to instill a sense of personal responsibility for the Chesapeake Bay, and to get residents thinking about adaptation and resilience strategies to address the threats of climate change and sea level rise.

In that spirit, Naval Station Norfolk (NSN) celebrated Earth Day on April 23 and, joined by some of its local environmental partners, utilized the opportunity to raise awareness about Chesapeake Bay Program themes and solicit active participation. The Earth Day Expo featured information booths from NSN's Recycling and Stormwater Prevention programs, Naval Surface Force Atlantic's (SURFLANT's) Energy Management Program, local partners from the Tidewater Beekeeper's Association, Chesapeake Bay Foundation (CBF)—Anglers for Clean Water (ACW) Program, and Elizabeth River Project (ERP).

The ERP is a group of citizens, businesses, schools, and governments that uses a collaborative model to restore the Elizabeth River (a tributary to the Chesapeake Bay) and its watershed. The ERP has developed a strong partnership with the DoD, which has led to numerous joint projects to reduce water pollution and restore aquatic and riparian buffer habitats.

At the NSN Earth Day Expo, ERP engaged U.S. Navy personnel and their



Casey Shaw (ERP) engages NSN family members to participate in a variety of local stewardship programs to improve water quality and build and restore marine wildlife habitat.

families to participate in the River Star Homes Program and take actions like scooping the poop, reducing lawn fertilizer, pumping out boat waste properly, and ending medication flushing to protect and restore Chesapeake Bay. During the Earth Day Expo, ERP educated the public about its programs to provide discounts on purchasing and installing super-sized rain barrels, providing homeowners with grants to

restore living shorelines, installing rain and pollinator gardens, and efforts to clean/restore the water and provide a healthy marine habitat by installing oyster reefs. Learn more about the ERP by visiting its website at www.elizabethriver.org.

To reduce contamination and maximize the value of recycled materials, NSN used its Recycling Program to educate U.S. Navy personnel and their families

about its effort to capture more than 25 million pounds of paper, plastic, cardboard, metal, wood pallets, batteries and other recyclable materials from the Hampton Roads area, and divert it from the waste stream. Recycling Program personnel also clarified what can and cannot be recycled through the Recycling Program.

Environmental staff from Naval Facilities Engineering Command (NAVFAC) MIDLANT's Stormwater Prevention Program engaged the public to create awareness about common types of pollution that result from everyday activities. Its main messages focused on easily preventable types of pollution, including household hazardous waste and pet waste, which can combine with stormwater runoff to become the leading threats to local water bodies. Pet waste contains bacteria and parasites, and presents a health risk to pets, people, local water bodies, and edible shellfish (e.g., oysters and clams). Likewise, spilled household hazardous wastes such as paint, paint thinner, motor oil, antifreeze, cleaners, and weed/insect killers can wash into storm drains and be transported into local waterways. Many of these chemicals can kill fish; poison ducks, geese, and other waterfowl; and sicken humans and pets that swim in the bays, rivers, and lakes. Picking up after pets and properly storing and disposing of household chemicals are easy ways to protect Chesapeake Bay from these threats. **Remember—we all live downstream!**

Because of the connection between a healthy ecosystem and a robust fishery, recreational anglers should be natural advocates for clean water and restored marine habitats. ACW is one of CBF's Fisheries Program projects that seeks to strengthen this natural partnership by inspiring, educating, equipping, and mobilizing advocates for clean water. Examples of its *Fisherman's Code for Protecting Our Bay, Rivers, and Streams* include disposing of old line or nets properly on land, collecting and disposing of trash, keeping oil and gas

out of the water, preventing cleaners from washing overboard, and avoiding boat speeds that cause large wakes. In addition, ACW focused much of its outreach on local efforts to restore oyster habitat. Find out more and take the "Anglers' Pledge" at: <http://www.cbf.org/join-us/more-things-you-can-do/anglers-for-clean-water/>.

NSN's Earth Day Expo also featured a live beehive display hosted by the Tidewater Beekeepers Association—one of the oldest beekeeping organizations in the state of Virginia. Its booth drew lots of attention as passersby searched the glass-enclosed hive for the queen bee, and in turn got a healthy dose of information about properly stewarding honey bees,

pollinator-friendly plant selection, the dangers of pesticide overuse, and the valuable role that honey bees play in pollinating one-sixth of the world's flowering plants. As a bonus, the Tidewater Beekeepers Association also provided samples of local honey. Find out more at: <http://www.tidewaterbeekeepers.net/>.

SURFLANT staff took the Earth Day Expo as an opportunity to speak with the public about the U.S. Navy's efforts to reduce energy usage and reduce greenhouse gas emissions. Also on display was one of three Public Works electric vehicles to showcase the clean technology and promote using energy-efficient and low-emission vehicles for everyday use.



Chris Moore (CBF) talks about its ACW Program and push to restore oyster reef habitat with the added benefit of improving water quality and fishery habitat.

Shoreline Restoration—A Team Effort at Aberdeen Proving Ground

By Jon Bleiweis, APG News (updated by Brown and Caldwell)



A look at eroded shoreline near the ATC ballistics range prior to restoration work.

PHOTOGRAPH RELEASED AND COURTESY OF ATC, APG.

Protecting existing shorelines along the Chesapeake Bay at APG supports the installation's mission, keeping test ranges operational and maintaining each range's footprint for required testing.

For more than a century, the service members stationed at Aberdeen Proving Ground (APG) in Maryland have enjoyed the benefit of living and working on the shores of the Upper Chesapeake Bay. It's a sentiment shared by current APG Senior Commander Maj. Gen. Randy Taylor, who often speaks to APG's unique location, describing the area as an "oasis in what is an urban sprawl between Baltimore and Philadelphia," with more than 144 miles of shoreline along the Chesapeake Bay and its tributaries.

APG's shoreline, which extends out to about the middle of the bay, was established in 1917 when the U.S. Army needed to test just about anything it uses to shoot, move, or communicate; it is a need that still exists today. APG security forces protect the shoreline from intruders but can do little to stop the wind, waves, storms, and ice that cause natural erosion. Left unprotected, shoreline erosion threatens roads, infrastructure, and eventually APG's vital missions that support U.S. service members.

Todd Beser of the APG DPW Environmental Division explained that if shoreline erosion degrades land access at APG, the U.S. Army may lose its ability to test or evaluate materiel in a timely manner; therefore, ensuring shoreline protection along the Chesapeake Bay within APG's jurisdiction supports the warfighter and keeps test ranges maintained and operational.

Projects Now and in the Future

In 2015, APG staff performed work on roughly 1,000 feet of Chesapeake Bay shoreline at the U.S. Army Aberdeen Test Center (ATC) ballistics range. According to Lead Environmental Engineer for the ATC Compliance and Conservation Team, David Goad, this shoreline restoration work allows the U.S. Army to continue its proofing and acceptance test mission.

For decades, wind and waves have eroded this portion of the shoreline. For this project, ATC partnered with DPW and the Army Test and Evaluation Command to protect the shoreline with stone. Goad stated that the goal of this \$500K project was to protect the shoreline before erosion further reduced the range's footprint. "Protecting the land where ATC's test mission takes place is important [...] What we do on these ranges can't be replicated just anywhere [...] Its value to the military is probably priceless."

Plans are in the works for three additional shoreline restoration projects along Bush River: (1) 5,000 feet at the Undex Test Facility, (2) 7,300 feet at Henry Field, and (3) 5,000 feet at C Field. All three areas have similar issues compared to the ballistics range: the shorelines are eroding. Currently, the projects are in the design phase and will feature both living and hardened shoreline elements.

Todd Beser explained that because shoreline restoration is considered a long-term project that does not fix an immediate need, it can be challenging to secure funding. To date,

construction for these projects is not yet funded. Also, given the expensive costs of shoreline restoration projects, DPW has explored alternatives to control erosion, such as land management activities to slow down and increase the quality of stormwater runoff.

Building upon the Chesapeake Bay total maximum daily load (CB TMDL), APG has also worked to improve its stormwater management practices. Todd Beser explained that by limiting pollutants entering Chesapeake Bay, water quality increases and bay grass grows and expands—stabilizing the shoreline and absorbing the impact from storms.

Beser's office works with the U.S. Army Corps of Engineers and non-governmental organizations to secure funding for future projects. One idea in the works is to reuse dredge material from navigation channels for shoreline stabilization. Staff are evaluating the feasibility of shoreline protection or restoration projects along several islands—Spesutie Island, Pooles Island, and Taylor Island—and the benefits to the infrastructure and mission that each project would provide. According to Beser, this effort is about merging various partners who "are going to bring different things to the table, whether it's material, design funding, construction funding... Then, we can go to Big Army and say, 'well we've got these other players putting in a little bit, let's put some in ourselves.'"



A shoreline protection project at APG completed in the late 2000s.

PHOTOGRAPH RELEASED AND PROVIDED BY JON BLEIWEIS, APG.

Building Climate Resilience: Understanding Vulnerability and Reducing Risk

By Mira Micin, Brown and Caldwell

In the last 7 years, the United States has seen more than 20 extreme water-related storm events. This higher incidence of extreme-weather events has translated into a large increase in costly flooding. Even after receiving federal relief funding and insurance payouts, the damage caused by flooding from major storm events is often greater than local communities can afford. Additionally, the influences on flooding are complex and not tied solely to the conditions within a single community's boundary.

Flooding issues are not isolated to coastal communities, as many of the costliest events have been attributed to riverine flooding. Because there is no way to stop the weather conditions that cause flooding, building resilience into the community is one path to lessen the potential impacts. DoD facilities are an integral part of many communities and, as part of the ongoing integrated planning efforts like the Joint Land Use Studies between installations and communities in the Hampton Roads area, can be partners in the effort to create climate resilience. The topics presented in this article are based on a presentation from the Virginia Lakes and Watershed Association (VLWA) 2018 Spring Seminar by Jim Fox titled "Climate Resilience in Action: Moving Beyond 'Did You Know.'"

We can achieve better climate resilience by investing now for a better future. Communities can invest in changes to the landscape to attenuate flooding risks, such as reducing impervious surfaces, or protecting the built environment from the effects of flooding by raising the elevation of homes and businesses. The path to building resilience can be defined by three steps:

1. Building an analysis framework
2. Developing a quantified assessment
3. Developing implementable solutions

This approach is captured in the U.S. Climate Resiliency Toolkit, which was developed by the National Oceanic and Atmospheric Administration (NOAA) in partnership with the National Aeronautics and Space Administration (NASA) and other departments in the U.S. Global Change Research Program. The toolkit is a simple model to assess vulnerability and risk. Vulnerability is linked to hazards like flooding and intense storms, and risk is linked to climate- and non-climate-based stressors. The toolkit is scalable and can be applied to locations of any size. Figure 1 shows a diagram of the toolkit's approach. The first step to building resilience (**building an analysis framework**) should put the process in a clear decision framework. The framework must consider the audience, and begin by answering basic questions such as: Do you know? Why should you care? What are we going to do about it? The order of

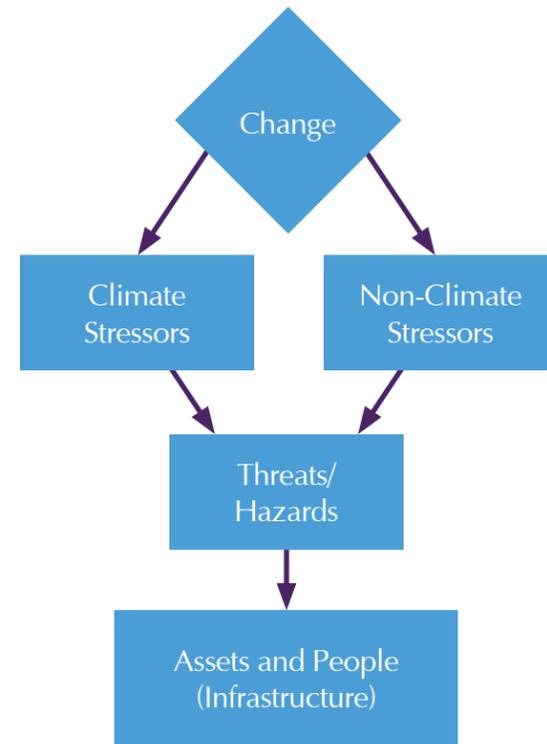


Figure 1: U.S. Climate Resiliency Toolkit flowchart. Figure adapted from J. Fox presentation.

the questions also matters; it starts with the individual (i.e., you and I) developing an understanding of the issue, and ends with us (i.e., the broader community) engaging the entire community to build consensus.

In the toolkit, users can select current weather conditions and potential future storm events and explore outcomes and impacts based on these scenarios. Users can explore threats and assets visually in a map view, which is generated based on user inputs. Figure 2 shows a portion of the Hampton Roads area with the locations vulnerable to flooding (in shades from yellow to red). One of the most useful features is the ability to map exposure of people to flooding by overlaying the flooding map with population density (shaded in gray).

The toolkit maps identify areas where people are and help narrow the focus on locations with the highest risk of loss of life. Mapping can also be used to delineate critical facility exposure to flood damage. Most importantly, the tool can help users consider future climate and non-climate stressors, such as increasing storm frequencies and magnitudes and expanding urban impervious coverage.

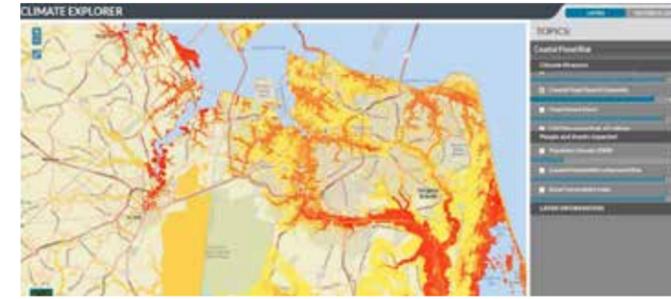


Figure 2: Coastal flooding overlay with population density in the Hampton Roads area.

The second step (**developing a quantified assessment**) examines the issues previously identified and compares them across asset sectors and threats, focusing on vulnerability and risk. Vulnerability refers to an asset's likelihood of being affected by hazards based on impact level and adaptive capacity; risk is the probability of loss. Risk generally increases with the changing severity and frequency of precipitation events. The toolkit assesses risk by mapping building exposure (i.e., assets in a flood-prone location) and vulnerability. The vulnerability and risk for structures within the same location can be drastically different depending on the structure design. Figure 3 illustrates how three houses in the same location have different degrees of vulnerability.

The quantified assessment is meant to categorize assets (residential, commercial, etc.) and identify areas of high risk and vulnerability. This information is valuable because it can

be parsed to individual stakeholder groups or used to lead discussion and cooperation between stakeholders. The results may define unique actions for stakeholder groups specific to local concerns or site conditions. Because funding for resiliency projects may be limited, this analysis provides useful information that can be translated to prioritized and targeted spending approaches.

The third step in building resilience is **developing implementable alternatives**. Alternatives must be accessible for communities of all sizes, and the toolkit provides some preprogrammed solutions. Solutions are actions that will help build resilience and take the form of investments in either assets (e.g., raising properties) or non-climate stressors (e.g., impervious surface reductions). The purpose of the investment is to increase a community's likelihood of bouncing back quickly, and reduce the individual citizen's time below an expected standard of living. Solutions that are easily digestible and targeted have a higher chance of implementation.

With a higher frequency and magnitude of storm events, resilience may become a key element of mission readiness at DoD installations. Tools like the U.S. Climate Resiliency Toolkit empower decision makers to visualize and analyze vulnerabilities in critical infrastructure and asset systems. Because many DoD personnel live in the communities surrounding DoD installations, it is equally important that local governments and DoD installations work cooperatively to ensure that the people and resources are in place to protect mission readiness.



Figure 3: The structures shown in this photograph will have different vulnerabilities due to structural characteristics. This photo includes an apartment complex, private residences, and commercial buildings in an area affected by tidal flooding and sea level rise.

Clean the Bay Day 2018

By Kevin Du Bois, DoD Chesapeake Bay Program

To mark Clean the Bay Day's 30th anniversary, families, military installations, businesses, and residents gathered at sites throughout the Chesapeake Bay watershed to pick up trash, litter, and debris. This year, 1,291 military service members and their families joined the community to show their commitment to a cleaner and healthier Bay. Thanks to some great organization by DoD coordinators and zone captains, the number of DoD volunteers increased 13% from last year. Volunteers cleaned 33 miles of shoreline and the number of pounds of trash and debris removed doubled to 28,035 lbs. (or approximately 14 tons)! The usual culprits that made up floatable marine debris were well represented including cigarette butts, plastic bags and bottles, aluminum cans, and pieces of wood. Participants also recorded unusual items found during the cleanup including a STOP sign, a Dora the Explorer stuffed head (Vamanos!), a skeleton face ball, a 350-lb. piece of workout equipment, half a fence, and a message in a bottle. Thanks to all our DoD volunteers for stepping up and taking personal responsibility for the Bay's health and for demonstrating why the DoD is such a valuable partner in Chesapeake Bay restoration!



1,291
military service members
& their families

INTERESTING ITEMS

- Stop sign
- 350-lb workout equipment
- Message in a bottle

33
miles of
shoreline cleaned



28,035
pounds of trash and
debris removed

PHOTOGRAPHS RELEASED AND PROVIDED BY NSA HAMPTON ROADS-LAFAYETTE RIVER ANNEX AND JEB LITTLE CREEK-FORT STORY.

Chesapeake Bay Action Team Updates

By Hee Jea Hall, Brown and Caldwell

Members of the Chesapeake Bay Action Team (CBAT) convened for its quarterly meeting on April 26, 2018, to review progress on restoration and protection efforts around the watershed.

Local Planning Goal Process

Nikki Kasi with the Pennsylvania Department of Environmental Protection (DEP) summarized Pennsylvania's development of local area planning goals (LAPGs) and engagement strategies. DEP convened the LAPG Workgroup to develop LAPGs in Pennsylvania.

Pennsylvania elected to divide planning targets at the county level after evaluating multiple geographic scales. Pennsylvania then sorted the counties in four tiers based on the estimated effectiveness and impact on pollution reduction. Tier 1 counties, such as York and Lancaster, will have the highest expected reduction. Pennsylvania will work with counties to evaluate local approaches and develop a plan to achieve pollution-reduction goals. In April, the LAPG Workgroup held a kickoff meeting to solicit feedback on a draft toolbox for county stakeholders, after which will be ongoing public engagement and opportunities for public input until the final Phase III watershed implementation plans (WIPs) are finalized in June 2019.

BMP Uncertainty in CBP Implementation

Stephanie Smith with Brown and Caldwell presented the outcomes of a recent Scientific and Technical Advisory Committee (STAC) workshop on BMP uncertainty. It is understood that BMP performance will vary due to several factors, including location, soil, season, and maintenance. In the Chesapeake Bay, quantifying uncertainty is important to accurately model reductions, and for implementers to estimate progress toward required reductions.

The current Expert Panel process does not explicitly account for uncertainty; as a result, its recommendations are often conservative. Therefore, modeled outcomes may not accurately predict water quality conditions. To overcome these shortcomings, STAC recommended that future Expert Panels generate common uncertainty descriptions and assessments, document the types of uncertainty associated with each BMP, and develop standard protocols for the Expert Panel process.

JBLE Structural Stormwater BMP Inspections and Maintenance Update

Daniel Weibke of AECOM summarized the findings of the structural stormwater BMP Inspection and Maintenance Program developed for JBLE. In 2016 and 2017, AECOM developed an inventory of BMPs at JBLE. Once the inventory was complete, AECOM created an inspection checklist through mobile software Survey123 (for ArcGIS®), an Esri platform through which custom, tablet-based forms can be developed.

AECOM also performed dry and wet weather field inspections to identify maintenance needs. Using Survey 123, inspectors documented operational issues. Mr. Weibke noted that minor maintenance issues addressed through routine maintenance may avoid more complex and costly repairs in the future. With these inspection results, JBLE will rank BMPs by the criticality of the maintenance needs, which will be used to justify future funding for BMP maintenance.

Chesapeake Bay TMDL 2017 Midpoint Assessment and DoD CBP Updates

Updates within the DoD Chesapeake Bay Program include:

- The Clean Water Act Services Steering Committee formed a sub-committee to address funding BMP operations and maintenance at DoD installations. The committee is recruiting members from all business lines—particularly Real Property and Asset Management.
- The DoD CBP completed the FY2017 Annual Progress Report. The cover photograph contest winner was Naval Support Facility Indian Head for its photograph of Mattawoman Creek at sunrise (photograph credit: Travis Wray.)
- The Federal Facilities Workgroup met and announced that EPA will be releasing a set of Phase III WIP Expectations for Federal Agencies and revising the Protocol for Setting Targets, Planning BMPs and Reporting Progress for Federal Facilities and Lands. Technical leads and legal staff should be prepared to review and comment.
- The DoD CBP will hold a separate call to discuss the jurisdictional approaches to LAPGs.



Operational issues, like the clogged media caused by prolonged ponding shown here, can be prevented or resolved through routine maintenance and inspection.

PHOTOGRAPH RELEASED AND PROVIDED BY DANIEL WEIBKE OF AECOM.

DoD/DoN Chesapeake Bay Program Office
1510 Gilbert Street
Building N-26, Room 3300
Norfolk, VA 23511

✓ Check it Out

DoD CBP FY2017 Annual Progress Report. Now available.

U.S. Air Force Pollinator Conservation Reference Guide.

Available on DENIX and online at: https://www.denix.osd.mil/nr/priorities/pollinators/guidance/u_s_air_force_pollinator_conservation_reference_guide/ and https://www.fws.gov/pollinators/PollinatorPages/USAF_Ref_Guide.html

University of Maryland Center for Environmental Science Chesapeake Bay Report Card. Now available. For the first

time, the Bay is showing a “statistically significant improving trend” in Bay health. To view the full report, visit https://ecoreportcard.org/report_cards/chesapeake_bay/health.

Challenging Nutrients Webinar. July 18, 2018, 3:00-4:00 p.m. EDT. For more information about this webinar and other topics in the EPA Tools and Resources Webinar Series, visit https://www.epa.gov/research/epa_tools_and-resources_webinar_series.

2018 DoD CBP Datacalls. The BMP and Projects and Indicators datacalls will be released in July and August 2018.

CBAT Quarterly Conference Call. July 26, 2018, 10:00 a.m. to 12:00 p.m. EDT. The agenda will include an overview of the 2018 datacall. For more information, contact Sarah Diebel at: sarah.diebel@navy.mil or 757.341.0383

Attend: Norfolk Naval Station, Building N 26 Room 3303
Call in: 1.866.749.3638/Passcode: 7362645

Web connect: <https://conference.apps.mil/webconf/quarterlyCBAT>

DoD Legacy Program. Full proposals due September 8, 2018. Proposals may be submitted online at: www.dodlegacy.org.

Proactive Planning: Incorporating Mitigation Strategies into Your Readiness and Environmental Protection Integration (REPI) Partnership Webinar, September 12, 2018, 1:00-2:30 p.m. EDT. For more information about this and other REPI webinars, visit <http://www.repi.mil/Resources/Webinars.aspx>.

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