SUMMER 2022

DoD Chesapeake Bay Program Journal

Edited by the DoD Chesapeake Bay Program Team

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

Collectively, Federal Agencies Commit to Implement the Chesapeake Bay Program Partnership's Climate Directive

By Kevin Du Bois, DoD CBP

The DoD Chesapeake Bay Program (CBP) was invited to work with other federal partners from the Environmental Protection Agency, U.S. Forest Service, and U.S. Fish and Wildlife Service to draft a follow-on document that would specifically identify federal commitments to implement the Chesapeake Executive Council's Directive No. 21-1: *Collective Action for Climate Change*. The "Commitment to Implement" document was intended to go beyond the Partnership's focus on water quality to highlight actions that federal agencies collectively would take, in alignment with mission, applicable law and budget constraints, to address the broad-spectrum of 2014 Watershed Agreement's goals and outcomes. In part, it states: "*Agencies will advance efforts aimed at accelerating projects to reduce flooding in communities, enhancing carbon sequestration and soil health on working lands, increasing the resiliency of habitats such as projects for living shorelines and riparian buffers, and enhancing science to forecast the effects of climate and land change to help target climate adaptation efforts.*"

Asked to provide specific examples of actions DoD would take, the DoD CBP provided a subset of applicable actions from its 2022-2023 Water Quality Programmatic Milestones that were aligned with the DoD Climate Adaptation Plan and Executive Orders 13508, 14008, and 14057, including:

- Reporting on Readiness and Environmental Protection Integration (REPI) buffer projects, REPI Challenge, and Sentinel Landscape Projects that include climate resilience co-benefits.
- Providing financial investment and a listing of water quality best management practice (BMP) project types implemented that provide climate resilience co-benefits, and
- Reporting the number and percentage of installations who have updated their Integrated Natural Resource Management Plans to address climate change.

This information is collected annually as part of the DoD CBP's BMP and Project & Indicator datacalls and requires no additional effort from installation staff. We are grateful for responses to the datacall. It allows the DoD CBP to report on the exceptional work that DoD installations do each year and clearly demonstrates DoD's role as a federal leader in Chesapeake Bay restoration and protection.

The *Federal Commitment to Implement the Chesapeake Executive Council Directive No. 21-1: Collective Action for Climate Change* can be found here:
https://www.chesapeakebay.net/documents/Climate_Directive_4.26.22.pdf

DOD CLIMATE ADAPTATION PLAN & THE COLLECTIVE FEDERAL COMMITMENT

IN THIS ISSUE

Commanders' Corner: 2022 Chesapeake Bay Commanders' Conference

By Kevin Du Bois, DoD CBP; Jessica Rodriguez, DoD CBP; and Esmeralda Jones; Brown and Caldwell

Every few years, Commander, Navy Region Mid-Atlantic (CNRMA) with the support of the DoD Chesapeake Bay Program (CBP), hosts a gathering of commanding officers/commanders from multi-service installations throughout the watershed, including from the District of Columbia, Maryland, New York, Pennsylvania, Virginia, and West Virginia. This Chesapeake Bay Commanders' Conference (CBCC) also draws secretariat-level participation. This year, the CBCC will be a virtual event help August 17-18 (see the "Save the Date" on the last page of this journal). The focus of the event will be on integrating partnerships and leveraging assets to build resilience and drive progress in Chesapeake Bay protection and restoration. CNRMA would like a high level of commanding officer/commander participation from all services and jurisdictions throughout the watershed at this event.

The purpose of the conference is to provide commanding officers/commanders with background on the DoD's responsibilities under the 2014 Chesapeake Bay Watershed Agreement and Executive Orders (EOs) 13508 (Chesapeake Bay Restoration), 14008 (Tackling the Climate Crisis), and 14057 (Clean Energy) as well as explain how DoD CBP activities support mission sustainment. Installation presentations will be used to highlight program success stories and demonstrate DoD's leadership in Chesapeake Bay protection and restoration.

Previously, the CBCC was used to update commanding officers/commanders on topics including DoD's commitments to the Chesapeake Bay Program Partnership (Partnership), remaining efforts to meet pollution reduction targets in the Chesapeake Bay total maximum daily load (TMDL), existing or ongoing projects and their co-benefits to the installation, and resilient BMP strategies. For this year's conference, speakers will focus on natural resources and land conservation projects that meet multiple objectives, funding opportunities to meet permit and water quality improvement requirements and improving climate resilience. Topics to expect in the 2022 virtual CBCC include:

- New and non-traditional funding methods to achieve CBP goals and outcomes
- Funding strategies to achieve climate resilience both on- and off-base
- Updates on authority for purchasing water quality nutrient credits
- U.S. Army Corps of Engineers (USACE) *Engineering with Nature* program
- Developing Military Installation Resilience Plans
- Aligning CBP Programmatic Two-Year Water Quality Milestones with the DoD Climate Adaptation Plan
- Regional REPI approaches for climate resilience
- The benefits of Sentinel Landscape designations
- Installation success stories

IMAGE BYKEVIN DU BOIS, DOD CBP

In 2019, the CBCC brought together installation leadership, environmental staff, the DoD CBP, and external stakeholders to discuss the Chesapeake Bay and environmental priorities.

Additionally, the conference will feature break-out sessions so that commanding officers/commanders can meet with their state, federal agency, and non-government partners to discuss collaborative approaches to meet installation needs. We encourage commanding officers/commanders to plan to attend the virtual event with the support of their key environmental, planning, and climate resilience support staff. The DoD CBP has been and will continue to prepare installation environmental staff through Chesapeake Bay Action Team (CBAT) meetings with information on cooperative planning programs for off-base defense communities and funding opportunities for project implementation to achieve multiple objectives for mission readiness. Their knowledge on these topics can help facilitate conversation during break-out sessions.

Commanding officers/commanders should take great pride in the achievements which their installation staff, through their leadership, have demonstrated in the protection and restoration of the Chesapeake Bay. The CBCC presents a rare opportunity for commanding officers/commanders to engage with multi-service counterparts and strategic non-military partners to identify collaborative and regional approaches that leverage assets to achieve multiple objectives and ensure mission sustainment. This engagement will support the goals and outcomes of new Executive Orders (EO) which focus on climate threats by providing an opportunity for installations to collaborate on how to efficiently and strategically use their limited fiscal, land, human, and capital resources. If you have not already done so, please use the email invitation from Rear Adm. Charles W. Rock to register for this important virtual event.

Urban Heat Island Effect: Mission Impacts and Nature-Based Mitigation Methods

By Esmeralda Jones, Brown and Caldwell

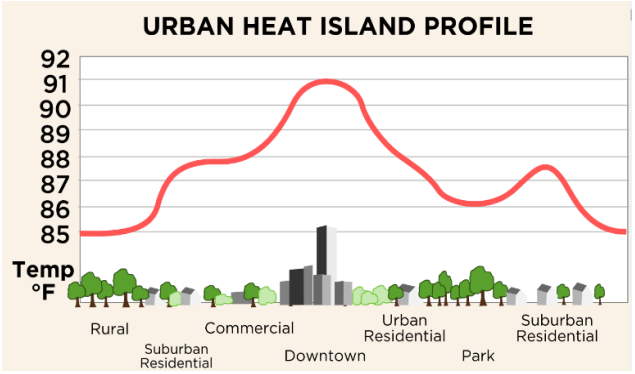
Rising temperatures as a result of climate change threaten both mission assurance and loss of natural habitats within installations. According to the U.S. Environmental Protection Agency (EPA), average temperatures across the northeastern United States rose almost 2 degrees Fahrenheit (F) between 1895 and 2011. These warming temperatures are most severely observed in urban regions with high impervious surface coverage. This phenomenon is known as the Urban Heat Island (UHI) effect. Installation natural resource managers can collaborate with water program managers to mitigate the effects of UHI by removing unnecessary impervious surface cover, planting trees, and implementing other vegetated BMPs. These natural and nature-based efforts also support the water quality goals of the 2014 Chesapeake Bay Watershed Agreement and EO 13508 as well as the climate resilience goals of placing the climate crisis at the forefront of foreign policy and national security planning, as written in EO 14008, and achieving a carbon pollution-free electricity sector by 2035 and net-zero emissions economywide by 2050, as stated in EO 14057.

UHI Causes and Impacts

Land cover type plays a large role in the severity of UHI. New construction and redevelopment that results in significant amounts of impervious surfaces and darker surfaces which absorb more heat can magnify the impacts of UHI. Sealed soils, characterized as soils covered by impermeable artificial material, similar to impervious surfaces, obstruct the transfer of heat and water between the soil and the earth's crust. If land cover at installations is not carefully managed to minimize the loss of cooling vegetative cover and prevent unnecessary increases in impervious surfaces, the temperatures within the developed portion of the installation can become significantly higher than surrounding areas by as much as 22°F (Figure 1). While these differences are most noticeable during the day, UHI impacts continue through the night, as impervious surfaces release stored heat from the daylight hours. Impervious surface heat radiation can reduce the opportunity for nighttime cooling, compound over time, and exacerbate daytime high temperatures. The negative impacts of UHI have been observed through:

- Increased health issues (e.g., asthma and heat stroke) impacting military service members (Figure 2)
- Increased "Black Flag" days restricting safe outdoor activity
- Higher energy consumption
- Negative impacts to wildlife habitat and reduced ecosystems

If not properly managed, outcomes of UHI can both impact the ability of service members to safely train and test weapon systems and increase the long-term financial burden on DoD installations to remain operational under such threats (e.g., increased spending on energy, water treatment, and habitat restoration).

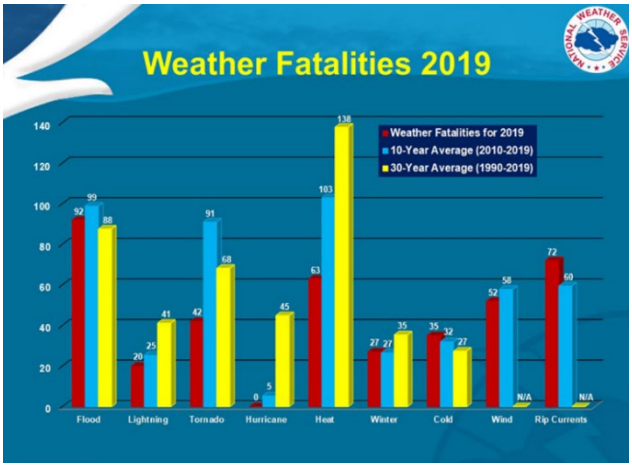


GRAPHIC PROVIDED BY EPA

Figure 1. Urbanization can result in concentrated high-temperature areas when compared to surrounding regions.

Strategies to Manage UHI

In order to combat the effects of extreme urban heat, the USACE's *Engineering With Nature: Supporting Mission Resilience and Infrastructure Value at DoD Installations* (see "References" for link) recommends the strategic planting of trees and vegetation for shading buildings, walkways, parking areas, and roads as well as the establishment of green roofs or other greening practices. This approach is supported by the *DoD Climate Adaptation Plan's* (CAP) Climate Adaptation Strategic Framework, which recognizes the importance of both built and natural infrastructure for installation resilience. Planting and maintaining trees, shrubs and vegetation provide temperature cooling and stormwater management benefits including the creation of shade, formation of wind barriers, increased water absorption and increased evapotranspiration. The creation of shade and wind breaks, for example, reduce overall heating and cooling costs and help regulate temperature extremes. In fact, a 10% increase in tree cover at an installation can result in a 5-7 degrees



GRAPHIC FROM THE NORFOLK HEALTH VULNERABILITY STORYMAP

Figure 2. Heat is the leading cause of weather-related fatalities in the United States.

Fahrenheit reduction in ambient temperatures. Increased water absorption and transpiration also minimize stormwater runoff volume and the possibility of flooding.

Additional benefits that accrue from vegetative practices include reductions of soil erosion, atmospheric carbon, and heat load on individual buildings, and loss or destruction of habitat. For example, the roots of mature plants reduce erosion and create a more stable, nutrient-rich layer for new plantings. If other BMPs such as green roofs, permeable pavements, and vegetated swales are implemented in parallel to this expanded tree cover, an installation can even further decrease the negative effects of UHI on military activities and surrounding ecosystems.

Design Guidelines for Trees and Vegetation Implementation

In order to support the long-term ability of vegetation to provide heat mitigating and other installation co-benefits, three major factors must be considered: species; location; and maintenance.

Selecting tree and other vegetation species. Species selection must take into consideration current and future climate conditions, including precipitation levels, soil types, sun exposure, temperature, drought, sea level rise, and extreme weather events. This is an essential part of planning to ensure the species selected can persist over time, mitigate UHI effects, and provide their broad spectrum of ecosystem services to support mission readiness. Species diversity should also be considered when selecting vegetation to combat UHI. For example, deciduous trees reduce UHI in the summer but lose their leaves in the winter; therefore, these trees provide the greatest benefit in cooler climates or seasons. Increasing species diversity may also support installation natural resource goals for wildlife and pollinator habitat, weed and pest suppression, and shoreline erosion control. However, natural resource managers must be mindful of the negative operational consequences that some improperly placed or maintained vegetation can produce such as Bird Air Strike Hazard, nuisance wildlife, etc.

Location of Tree Planting. While smaller vegetation can fit in most locations without interfering with base operations and use, significantly larger tree species must be carefully placed. For example, as a tree grows, so do its roots; which can potentially raise or fracture sidewalks and roads if planted too close. Similarly, the canopy of a tree widens as the tree matures. The potential canopy size should be considered when determining how far to space trees apart from each other and from infrastructure, such as roads where branches could interfere with traffic.

Long-Term Maintenance. Mature trees and long-lasting vegetation will provide the greatest return on investment for maintaining the broad spectrum of environmental co-benefits, so developing a long-term maintenance plan or contract for vegetative infrastructure is encouraged. To maximize the lifespan of existing and newly planted vegetation, installations should be aware of the maintenance practices needed to keep these plants healthy. In general, natural resource and stormwater program managers are encouraged to have a general awareness of how to prune and maintain different vegetation types as well as how to respond to issues with plant disease, pests, or other health issues.

Takeaways for DoD Installations

Installation environmental staff can support mission readiness by using their expertise to design and implement natural and nature-based solutions to combat urban heat island effects. Incorporating an understanding of climate impacts on species health, the benefits of species diversity, and maintenance requirements, staff can ensure the vegetative infrastructure provides multiple, long-term co-benefits. Working with base planners and contractors to substitute vegetative infrastructure for unnecessary impervious surface can further reduce UHI effects. Together, these actions help preserve training and testing missions and support the overall health and welfare of the warfighter while also supporting DoD's commitments to climate resilience, natural resources management, stormwater management, and energy savings.

References

Chesapeake Bay Program Partnership's "Climate Change" webpage: https://www.chesapeakebay.net/issues/climate_change

DoD CAP (see "Resilient Built and Natural Infrastructure" starting on page 12): https://www.sustainability.gov/pdfs/dod-2021-cap.pdf

Norfolk Heat Vulnerability storymap: https://storymaps.arcgis.com/stories/7cde13a422504a0682ec9c2deb18c4b6

Urban Trees: Strategies for Reducing Urban Heat Island Effect by Veronica Westendorff: https://thefield.asla.org/2021/07/22/urban-trees-strategies-for-reducing-urban-heat-island-in-cities/

USACE, *Engineering With Nature: Supporting Mission Resilience and Infrastructure Value at DoD Installations*: https://apps.dtic.mil/sti/pdfs/AD1150061.pdf

Supporting Military Installations by Engineering With Nature

By Jeffrey K. King, PhD, P.E., Deputy National Lead and Program Manager. USACE EWN® Program; and Amanda S. Tritinger, PhD, Assistant Program Manager, USACE EWN® Program

The people and physical assets of the DoD operate on approximately 400,000 acres of land at DoD sites, facilities, and installations around the Chesapeake Bay watershed. In order to sustain the mission within this area in the face of new and existing threats from natural hazards, climate change, and aging infrastructure systems, DoD must promote innovation and take action to create resilient systems. Mitigating these threats will require new ways of thinking about complex problems, an openness to new solutions, a willingness to change, and a commitment to adaptation. It will also require coordinated investment in both built and natural infrastructures that are essential to sustain readiness and mission resilience across the DoD in the 21st century. Installations can leverage their natural landscapes, features (built, land, and water), and operating processes to implement strategic nature-based solutions to support mission readiness and resilience.

USACE Engineering With Nature (EWN)® Program

For more than 10 years, the USACE's EWN® initiative has been leveraging natural systems to support critical engineering functions while also delivering diverse economic, environmental, and social co-benefits. The development and communication of innovative, multi-benefit solutions has been the product of numerous projects, partnerships, technical advancements, and communication investments that are accelerating innovation and delivery of nature-based solutions. Recently, the EWN® Program was funded by Congress to conduct a limited number of installation-level studies to identify and evaluate natural infrastructure strategies and project alternatives to support installation resilience. In support of this effort, a collaborative team works directly with installation personnel to pursue one or more of the following high-level objectives:

- Develop an inventory/catalog of relevant natural infrastructure options for the installation.
- Perform modeling of natural hazards and related processes concerning natural infrastructure project alternatives and strategies.
- Evaluate the benefits and cost of natural infrastructure/nature-based solutions for natural hazards and long-term mission resilience.
- Support the preliminary design and optimization of natural infrastructure project alternatives.
- Evaluate the performance of natural infrastructure project alternatives.
- Provide technical expertise supporting, implementing, operating, and maintaining natural infrastructure projects.

IMAGE BY JASON KIRKPATRICK

A once eroding shoreline stabilized through use of a nearshore oyster reef and vegetative planting.

An initial engagement between USACE's EWN® and the Department of Navy resulted in a March 2022 workshop at the Marine Corps Air Station in Yuma, Arizona, focused on installations located in arid climates. Several outcomes from that workshop have resulted in the identification of future studies that will examine potential interventions for natural hazards such as drought and wildfires which also threaten installations in the Chesapeake Bay region.

IMAGE BY PETER CLARK, TAMPA BAY WATCH

Military and civilian volunteers place oyster reef balls along the shoreline.

EWN® Efforts in the Chesapeake Bay Watershed

The USACE EWN® Program has ongoing projects within the watershed that have contributed to a greater understanding of the performance and benefits of large natural infrastructure features. The Baltimore District's Swan Island Project is one example. The project used approximately 60,000 cubic yards of sediment from a nearby federal channel to elevate and restore the island's footprint. This action created a dune system, high marsh, and low marsh. Post-implementation observations of this project provided valuable insight into the efficacy and benefits of island restoration as well as a greater understanding of the use of islands as natural infrastructure. The compilation of numerous studies, like Swan Island, combined with the progressive advancement of EWN® strategies and techniques, will offer valuable insight when assessing natural hazards risk and developing natural infrastructure designs for military installations.

The US Army's Aberdeen Proving Ground has been identified as the first military installation for study in the Chesapeake Bay watershed. This study was initiated by a group of partnering organizations including the U.S. Army Engineer Research and Development Center; EA Engineering, Science and Technology, Inc. PBC (EA); and the University of Delaware. Goals for this project include developing technical concepts for integrating EWN® principles and identifying opportunities to utilize natural infrastructure to support installation resilience. Natural infrastructure strategies for installation resilience would also include opportunities to produce relevant environmental and social (e.g., health and well-being) co-benefits. Where applicable, systems of interest will be modeled to determine the performance of natural infrastructure alternatives as they relate to natural hazards and installation vulnerabilities. To that end, natural infrastructure features would be evaluated using modeling scenarios to determine the potential magnitude of risk reduction that could be achieved. While Aberdeen Proving Ground represents the first installation in the Chesapeake Bay to be included in EWN®'s broader support of DoD, discussions are underway at Joint Base Langley Eustis-Langley (Air Force) and other services and other installations in the region are likely to be added in the future.

As EWN® Program's support of DoD continues to mature, it is anticipated that the entirety of installations comprising the portfolio will be diverse in terms of mission, ecoregions being evaluated, and their associated risk(s) derived from natural hazards. For more information about USACE's EWN® Program, please visit the website at https://ewn.erdc.dren.mil

References

Bridges, T.S., J.K. King, E.B. Moynihan, C.L. Allen, C.S., Vann, and K.L. Rhea. 2021 Engineering With Nature: Supporting Mission Resilience and Infrastructure Value at Department of Defense Installations. ERDC SR-21-0. Vicksburg, MS: US Army Engineer Research and Development Center. https://EWN®.erdc.dren.mil/wp-content/uploads/2021/10/ERDC-SR-21-9-ebook-web-release.pdf

Davis, J., P. Whitfield, D. Szimanski, B.R. Golden, M. Whitbeck, J. Gailani, B. Herman, A. Tritinger, S.C. Dillan, and J. King. 2021 A Framework for Evaluating Island Restoration Performance: A Case Study from the Chesapeake Bay. Int. Environ. Assess. Manag. 18 (1) pp. 42-48.

King, J.K., B.C. Suedel, and T.S. Bridges. 2020 Achieving Sustainable Outcomes Using Engineering With Nature Principles and Practices. Int. Environ. Assess. Manag. 16 (5) pp. 546-548.

Chesapeake Bay Action Team Updates

By Esmeralda Jones, Brown and Caldwell

The second quarterly CBAT meeting for 2022 took place on May 12. Installation roundtable discussion topics included the upcoming Chesapeake Bay Commanders' Conference, nutrient trading, and other topics of general interest. Staff from the Office of Local Defense Community Cooperation (OLDCC) and Brown and Caldwell provided presentations as follows:

Presentation 1: Military Installation Sustainability, Compatible Use Plan (CUP), and Military Installation Resilience (MIR) Planning Studies

Margit Myers and Adam Wright presented on current OLDCC programs related to community investment, adjustment pertaining to diversification, growth and realignment of resources to optimize mission readiness, and the Defense Community Infrastructure Pilot (DCIP). Projects identified by these programs address noise mitigation, support defense manufacturing communities, medical facility access roads, Pacific readiness, compatible use, and installation resilience. A few notable success stories from projects funded by OLDCC programs include: the Compatible Land Use Vulture Study at Naval Air Station (NAS) Meridian, Mississippi, which resulted in gaining valuable insight to evaluate practical means of changing land use to avoid aircraft-vulture strikes near training sites, completion of the first viable oyster reef in 100 years near the Atlantic Fleet Carrier and Expeditionary Strike Groups ammunitions port in Naval Weapon Station Earle, New Jersey, and continued support on a $2 million REPI project focused on land preservation around drinking water reservoirs. In early May, OLDCC announced $90 million in funding opportunities available for Fiscal Year 2022 DCIP projects. Proposals are currently being accepted and are due by July 18. The DCIP Program competitively selects and funds projects delivering military value, resilience, and military family quality of life. To qualify, projects must be construction-ready, off-base projects with careful review of National Environmental Policy Act requirements and availability of matching funds.

Presentation 2: Maryland Department of the Environment (MDE) Advancing Stormwater Resiliency in Maryland (A-StoRM) Report: Implications for Installations in Maryland (MD) and throughout the Chesapeake Bay Watershed

The A-StoRM report was submitted to the MD General Assembly in November 2021 to meet requirements for updates to the state's Stormwater Management Law, Environmental Article 4-201.1. Updates to this law are intended to address urban and riverine flooding issues throughout the jurisdiction. MDE will be establishing updated stormwater management regulations in early 2023 and will convene a stakeholder advisory group to discuss the proposed regulations. The report will include a compilation and evaluation of existing and future precipitation data, planned updates for stormwater quantity standards, potential watershed study and planning requirements, and a proposed schedule of discussed actions. Installations should be aware of the level of additional effort that will be expected within their watershed. Since other states often follow MD's lead, installations outside MD should consider the supporting evidence used to develop these updates to inform their stormwater management activities and consider new strategies for enhanced climate resilience of new development and redevelopment activities.

DoD Chesapeake Bay Program Updates

- The 2022 REPI Report to Congress has been released to the public.
- Final funding decisions and process obligations for the 2022 REPI Challenge will be determined between late May and early June. The DoD CBP wishes best of luck to Naval Support Facility Dahlgren and NAS Patuxent River on their application submissions.
- $25 million in funding is available to support Sentinel Landscape projects through the America the Beautiful Challenge.
- $15 million in REPI funding is available for off-base projects through the National Fish and Wildlife Foundation Coastal Resilience Fund.
- $90 million in DCIP funding is available for off-base infrastructure projects that support installations and defense communities.
- Clean the Base Day events will run through June 6. Six installations have reported results so far. To date, a total of 190 volunteers have cleaned 15.5 miles of shoreline and collected over 3,000 pounds of trash. If any installation has held or will hold a Clean the Base Day event, please reach out to Kevin Du Bois to share information about the event outcomes.
- The DoD CBP invites installations to share information about environmental or other Earth Day related activities.
- The DoD CBP Spring Journal was mailed on April 4 and is available on DENIX: https://denix.osd.mil/Chesapeake/dod-cbp-quarterly-journals.
- A Quick Guide fact sheet is available on funding opportunities for projects that meet multiple installation objectives: https://authorizing.denix.osd.mil/chesapeake/dod-cbp-chesapeake-bay-action-team-cbat/training-and-guidance-documents/fact-sheets/funding-projects-to-achieve-misison-assurance-objectives-a-quick-guide/.
- The next CBAT meeting is scheduled for July 28.

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

Check it Out

Pew Charitable Trust's latest *After The Fact* Podcast episode, "Ocean, People, Planet: A Wildlife Refuge On The Brink, explores how a changing climate is threatening the economic livelihood, biodiversity, and cultural heritage of the area as Harriet Tubman's ancestral home. The episode includes a related Q&A with Kristin Thomasgard, the program director for the Defense Department's Readiness and Environmental Protection Integration Program, about the Department's role at the intersection of national security and conservation.

Save the Date

• • •

2022 DoD Chesapeake Bay Commanders' Conference virtual via Microsoft Teams

17 August, 1300-1700

18 August, 0800-1200

Agenda and registration information will follow. No registration fee will be collected.

REAR ADMIRAL
CHARLES W. ROCK
COMMANDER,
NAVY REGION MID -ATLANTIC

This newsletter is produced by Brown and Caldwell under NAVFAC Atlantic A-E Contract N62470-14-D-9022 for Support of Safe Drinking Water Act and Clean Water Act Environmental Compliance Program. For more information or to be added to the email distribution list, please contact the DoD Chesapeake Bay Program: http://www.denix.osd.mil/chesapeake/home.