Winter 2025

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

Commander Navy Region Mid-Atlantic Hosts Chesapeake Bay Commission

By DoD Chesapeake Bay Program

PHOTO CREDIT: CAPT DEES – CHIEF OF STAFF, NAVY REGION MID-ATLANTIC

Leading the tour of Penniman Spit (L to R): Rear Admiral Carl A. Lathi, CNRMA; Tom Olexa, Natural Resource Manager; and Karnig Ohannessian, ASN (E&MR)

As the lead for DoD Chesapeake Bay Program, Commander Navy Region Mid- Atlantic (CNRMA), Rear Admiral Carl Lahti, hosted the multi-state Chesapeake Bay Commission (CBC) at the Virginia Institute of Marine Science (VIMS) in Gloucester, Virginia on September 5, 2024. The CBC is a signatory to the 2014 Chesapeake Bay Watershed Agreement and serves as the legislative voice in the multi-jurisdictional Chesapeake Bay Program Partnership. It also serves as a liaison to the U.S. Congress on policy and budgetary matters related to the restoration of the Bay and its watershed. The CNRMA represents DoD interests as a member of the Commission and tracks legislative initiatives that could affect DoD mission operations in Virginia, Maryland, and Pennsylvania.

Installation staff from Naval Weapons Station Yorktown showcased Department of Navy natural and nature-based projects for installation resilience including intertidal and subtidal oyster reef and wetland and beach restoration project elements funded, in part, with Readiness and Environmental Protection Integration (REPI) Challenge awards. The full project implemented nearly 4,000 linear feet of living shoreline protection features and restored approximately 3 acres of land. The project not only enhances installation resiliency by protecting critical pier and road infrastructure but is also part of a larger collaborative effort to restore and protect the York River and its ecosystem services. DoD Chesapeake Bay Program staff informed Commission members about the Middle Chesapeake, Tidewater, Potomac, and Kittatinny Ridge Sentinel Landscapes found in their states and provided the REPI Resilience Funding Guide and State Policy Options to Sustain Military Installations publications to facilitate future projects to benefit mission readiness (see links below). Commission staff discussed their efforts to advocate for an increase in REPI funding and new funding set asides in the National Defense Authorization Act for the implementation, inspection, and maintenance of military installation stormwater projects.

In addition to the CNRMA, the Deputy Assistant Secretary of the Navy, Navy Installation Resilience Program Manager, Office of the Chief of Naval Operations (OPNAV) N4I Natural Resource Lead, NAVFAC HQ Director of Environmental Planning, REPI Program Director, and Assistant Secretary of the Army Assistant for Environmental Compliance were also in attendance.

Links

https://www.repi.mil/Portals/44/2024_REPI_Resilience_Guide_052024.pdf

https://www.denix.osd.mil/chesapeake/denix-files/sites/30/2024/08/Mission-Ready.pdf_safe.pdf

IN THIS ISSUE

Commander's Corner: Chesapeake Executive Council Announces Plans to Refresh Chesapeake Bay Watershed Agreement and Creates New Agricultural Advisory Committee

By Ashley Kelly, DoD CBP

On December 10, the Chesapeake Bay Program's Executive Council (EC) gathered in Annapolis, Maryland to announce plans to revise the existing 2014 Chesapeake Bay Watershed Agreement over the next year and form a new Agriculture Advisory Committee.

PHOTO CREDIT: WILL PARSON/CHESAPEAKE BAY PROGRAM

Gov. Wes Moore was re-elected to a one-year term as chair of the council during the meeting, which was also attended by Gov. Glenn Youngkin of Virginia, remotely by Gov. Josh Shapiro of Pennsylvania, and representatives from West Virginia, Delaware, New York, the District of Columbia, the U.S. Environmental Protection Agency (EPA) and the Chesapeake Bay Commission.

The EC was established as part of the Chesapeake Bay Agreement of 1983 to guide the policy agenda and set the conservation and restoration goals for the regional federal-state Partnership. It consists of the governors of Delaware, Maryland, New York, Pennsylvania, Virginia and West Virginia, the mayor of the District of Columbia, the chair of the Chesapeake Bay Commission and the Administrator of the Environmental Protection Agency (who represents partnering federal agencies).

Two years ago, the EC directed the Bay Program's Principals' Staff Committee (PSC) to recommend a strategy that prioritized and outlined the next steps for meeting the goals and outcomes of the Watershed Agreement and prepare recommendations that continued to address new advances in science and restoration while focusing on the future of the Chesapeake Bay Program beyond 2025.

The result, "A Critical Path Forward for the Chesapeake Bay Program Beyond 2025", is a report developed over the past year-and-a-half by a steering committee consisting of representatives from multiple partnership stakeholders and presented for public feedback in summer 2024. The report outlines two fundamental recommendations for the future of Chesapeake Bay restoration, as well as the partnership.

In response to this report, the EC directed the PSC to revise the existing 2014 Watershed Agreement by the end of calendar year 2025 and work to streamline the existing partnership framework for it to be more inclusive of all communities, more manageable for Chesapeake Bay Program staff and supportive of all partners as they work to achieve their commitments.

To help accelerate progress toward meeting the partnership's water quality goals, the EC formally signed a directive at the December 10 meeting, forming a new Agricultural Advisory Committee. As the first new advisory committee created for the Chesapeake Bay Program since the late 1980s, the Agricultural Advisory Committee will advise the EC on strategies and opportunities for the diversity of agricultural operations across the watershed, and serve as a voice for producers and industry on agricultural production and conservation initiatives within the partnership.

FOR MORE INFORMATION

on the EC meeting, please visit https://www.chesapeakebay.net/who/ecmeeting/2024-executive-council-meeting

Success Story: Fort Walker and Virginia Department of Conservation and Recreation Partner to Protect Natural Resources

By Amanda Thompson, Fort Walker, Virginia

In August 2024, Fort Walker met with leaders from the Virginia Department of Conservation and Recreation (DCR) to sign a 10-year Intergovernmental Service Agreement (IGSA). Along with two other IGSAs with Colorado State University and Virginia Tech, respectively, these agreements work together to provide stewardship and management of more than 76,000 acres of natural resources, rare species, and unique natural communities housed on the installation. The installation now retains nearly 10% of all Army Environmental IGSAs, totaling 32 across all Army installations.

Fort Walker's critical habitat and its waterways connect directly to the Rappahannock River, eventually feeding into the Chesapeake Bay. The installation also falls within the Potomac Sentinel Landscape established in 2023, a coalition of federal agencies, state and local governments, and non-governmental organizations that work to advance sustainable land use practices around military installations.

This IGSA with DCR's Natural Heritage Program formalizes a partnership of more than 3 decades, allowing expert State biologists to join Fort Walker Environmental staff for existing and new projects both on and off-post. On-post, the agreement continues to contribute to the installation's Threatened & Endangered Species Program, monitoring critical species like theSmall Whorled Pogonia orchid, Tri-Colored Bat, Frosted Elfin butterfly, and several others, all relying on Fort Walker for their survival. In addition, several collaborative pollinator surveys are planned to assess habitat and species inventory, enabling management decisions and contributing to DCR's statewide data on natural communities and rare plants and animals.

Off-post, the IGSA assists in growing the installation's Army Compatible Use Buffer (ACUB) Program – a collaborative partnership between Fort Walker, the Conservation Fund, Trust for Public Land, and Virginia Outdoors Foundation to acquire conservation easements around post to protect against urban encroachment and its effect on mission readiness. To date, this program has protected more than 13,000 acres around the installation.

These IGSA projects and conservation goals achieve several pillars for both Chesapeake Bay Program and the Potomac Sentinel Landscape – preventing encroachment and supporting Virginia's working lands, building resilience against environmental hazards, and conserving key habitats to benefit water quality, fish and wildlife, and protected species. Regarding the agreement, DCR said "The Virginia Department of Conservation and Recreation is excited that the U.S. Army will be able to continue to rely on our agency experts to assist in stewarding the important natural resources found on the base… Our partnership, nearly 35 years strong, will now benefit from greater streamlining and efficiency, as we pursue our unique missions and common conservation goals."

PHOTO CREDITS: FORT WALKER ENVIRONMENTAL DIVISION

Monarch butterfly lands on a field thistle on Fort Walker

Fort Walker Conservation Office's planting of crimson clover for habitat management

Staff holds a turkey chick during a biological survey on Fort Walker

FOR MORE INFORMATION

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Success Story: Navy's Focus to Utilize Emerging Technologies in BMP Maintenance

By Evan Miles, NAVFAC Washington

NAVFAC Washington strives to control and treat stormwater runoff by implementing cutting-edge technologies and methods wherever feasible. These stormwater controls minimize the impact of stormwater runoff from daily Naval operations on the environment. In order to meet or exceed stormwater goals to protect the Chesapeake Bay watershed, NAVFAC Washington continually researches and implements emerging techniques to effectively manage and maintain our existing suite of stormwater controls.

Recently, NAVFAC Washington learned of a developmental shoreline and hillside erosion product called DredgeSOX™. It is a patented erosion control system deployed on bodies of water, such as a lake or pond, that not only stabilizes embankments, but reduces the amount of dredged sediment required to be hauled off-site. DredgeSOX™ uses an amphibious work boat to dredge excessive sediment out of a lake or pond into an anchored knitted containment system, to keep sediment on-site and repair any eroding embankments.

Upon the discovery of this cutting-edge erosion control method, NAVFAC Washington found an ideal location to put it into action. A wet pond located at NSF Carderock was in desperate need of dredging to restore the pond's total storage capacity back to the original design specifications. Over time, the pond had accumulated sediment from the gradual erosion of the pond embankment, diminishing the pond's storage and treatment capacity, resulting in more polluted stormwater runoff discharge.

NAVFAC Washington contracted a local company to utilize this DredgeSOX™ method and the dredging work took nearly two months. The contractor used a dual pump rig to kick up sediment from the base of the pond and then an agitator jet pumped sediment-laden water into the DredgeSOX™. With this process, clean water was returned to the pond and suspended clay/sand/silt particles were trapped in the DredgeSOX™ to redefine the pond's embankment. Once this method reached its maximum yield, a long-armed excavator was used to fill the DredgeSOX™ with the older, deeper sediment that was too compacted to be suspended with the agitator jet. Together, these processes resulted in more than 230 cubic yards of sediment (23 dump trucks) being repurposed back into the DredgeSOX™, saving the installation on fees for off-site disposal of dredged material or the purchase of soil fill to restore the pond bank.

Over the next several months, the grass on the DredgeSOX™ will continue to grow in thick, providing a stabilized embankment and prevent any further erosion into the pond. Using these and similar methods, the NAVFAC Washington Environmental team remains committed to improving the water quality of the Chesapeake Bay and enhancing the Navy's mission.

PHOTO CREDITS: EVAN MILES/NAVFAC WASHINGTON

NSF Carderock Wet Pond – before, during, and after installation of DredgeSOX™

FOR MORE INFORMATION

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Municipal Separate Storm Sewer System Permit Requirements and DoD Chesapeake Bay Program Goals

By Shelly Frie, CH2M HILL, Inc. (now Jacobs Solutions, Inc.)

Some Department of Defense (DoD) installations located in the Chesapeake Bay Watershed are required to have a municipal separate storm sewer system (MS4) permit to discharge stormwater runoff into receiving waters of the United States. This article provides information on MS4 permit requirements and how they relate to DoD Chesapeake Bay Program (CBP) goals and mandatory reporting.

The federal Clean Water Act authorizes the National Pollutant Discharge Elimination System (NPDES) permit program which regulates stormwater discharges from MS4s, industrial activities, and construction activities to reduce water pollution and protect water quality. The three types of stormwater permits have different requirements to address the specific characteristics of their pollution sources.

MS4 permits are issued to authorize stormwater discharges from publicly owned and operated storm sewer systems that collect runoff from urban or developed areas, often referred to as the MS4 service area. Stormwater runoff from a MS4 service area may contain pollutants such as sediment, nutrients, bacteria, oil and trash and the MS4 permit requirements are designed to reduce or prevent these pollutants from entering waters of the United States.

Regulated Entities and Permit Administration

Specific details about MS4 regulated entities and permit administration including authorization, permit types, permit duration, termination, and reporting are provided.

Regulated Entities

- Most MS4 permits are issued to municipalities which are categorized as either a Phase I (large) MS4 or a Phase II (small) MS4. A large MS4 is located in an urban area with a population of 100,000 or more people and a small MS4 that is located in an urban area with a population of 50,000 or more people.
- ★ Non-traditional MS4s, such as those operated by military installations, universities, hospitals, and state transportation departments, may require permits if located in urban areas with populations of 50,000 or more. Permitting authorities may also require permits based on factors like the extent of the storm sewer system and the potential for pollutant discharge.

Authorization and General Permits

- The U.S. Environmental Protection Agency (EPA) has authorized Maryland, New York, Pennsylvania, Virginia, and West Virginia to administer MS4 permits. The EPA administers the MS4 permit for Washington, D.C.
- The Phase II MS4 General Permit regulations are designed to apply to small and non-traditional MS4s ensuring consistent regulatory requirements across all general permit holders. These permittees each have the same permit requirements, however, for identification purposes each is assigned a unique permit number by the EPA or delegated State authority as part of the permitting process. For example in Virginia, all Phase II MS4 General Permit numbers begin with the code VAR04 followed by a series of unique numbers to identity the permittee. Most military installations located within qualifying urbanized areas are non-traditional MS4s that are subject to these Phase II general permit regulations. In contrast, individual MS4 permits are intended for large Phase I MS4s and feature more specific, individually tailored requirements for each permit holder. There are no military installations in the Chesapeake Bay Watershed that hold an individual MS4 permit.
- General permits require submission of a Notice of Intent or registration statement for permit coverage to the Permitting authority. Permitting authorities offer waivers for MS4 permits under specific conditions and the criteria for waivers can be found on each jurisdiction's MS4 website (see Table 1).

Table 1. MS4 Permit Resources

Permitting Authority	Website
EPA	https://www.epa.gov/npdes/stormwater-discharges-municipal-sources
Maryland	https://mde.maryland.gov/programs/water/StormwaterManagementProgram/Pages/MS4-Landing.aspx
New York	https://dec.ny.gov/environmental-protection/water/water-quality/stormwater/ms4-permit-forms
Pennsylvania	https://www.pa.gov/agencies/dep/programs-and-services/water/clean-water/stormwater-management/municipal-stormwater.html
Virginia	https://www.deq.virginia.gov/permits/water/ms4
West Virginia	https://dep.wv.gov/WWE/Programs/stormwater/MS4/Pages/default.aspx

Duration and Termination

- MS4 permit duration is typically 5 years. If a permit expires and a new one has not been issued, the permitting authority can administratively continue the existing permit until a new one is issued.
- MS4 permits are typically not terminated because storm sewer infrastructure is a permanent feature required to collect and convey stormwater runoff. A MS4 permit could be terminated if the discharge becomes covered under a different permit such as an industrial stormwater permit or if the permittee fails to comply with the permit requirements and the permitting authority decides to revoke the permit.

Reporting

- All permittees must submit annual reports to the permitting authority that describe the activities implemented for permit compliance and progress towards meeting the Chesapeake Bay and local total maximum daily load (TMDL) pollutant reduction requirements. Local TMDL requirements were discussed during the Chesapeake Bay Action Team meeting on January 23, 2025.
- DoD permittees within the Chesapeake Bay watershed are also required to report annually to the DoD Chesapeake Bay Program (CBP) on their new and planned best management practices (BMPs) to determine TMDL pollutant reduction progress. Installations should also report natural and nature-based projects, like tree planting that provides a water quality benefit, as these contribute to pollution reduction. Public outreach and stewardship activities can also be a requirement of MS4 permits and these must be reported during annual Project and Indicators (P&I) datacalls. Collectively, BMP and P&I datacall reporting helps the DoD CBP demonstrate progress on goals and outcomes associated with the 2014 Chesapeake Bay Watershed Agreement, Executive Order 13508, and the Chesapeake Bay Accountability and Restoration Act.

Permit Requirements and How They Relate to the DoD Chesapeake Bay Program

MS4 permit requirements include implementing activities that meet the six minimum control measures (MCMs) as listed in Table 2. Permittees must also comply with Chesapeake Bay and local TMDL requirements, including reporting annually to the jurisdiction on their compliance activities and progress. This same information is reported to the DoD CBP as part of the DoD BMP and P&I datacalls. Details on how permit MCM activities relate to DoD CBP goals are provided in Table 2.

Table 2. MS4 Permit Compliance Related to DoD Chesapeake Bay Program Goals

MCM	Compliance Activities	DoD CMP Goal
Public Education and Outreach	Environmental educational events, temporary or permanent educational signage, distributing educational materials to installation personnel or the public, speaking engagements	Environmental Literacy and Stewardship
Public Involvement and Participation	Creating a MS4 program webpage for the public or installation intranet, volunteer clean-up, planting, or environmental restoration activities	Stewardship
Illicit Discharge Detection and Elimination (IDDE)	Maintain an accurate MS4 map and/or geodatabase with outfall locations, implement and enforce IDDE procedures, perform dry weather screening of MS4 outfalls, illicit discharge reporting and investigation	Water Quality
Construction Site Runoff Control	Comply with erosion and sediment control requirements, comply with stormwater permits for construction activity, perform inspection of construction sites for compliance, develop procedures for compliance, train personnel on procedures	Water Quality
Post-Construction Stormwater Management	Comply with jurisdiction stormwater management requirements, inspect and maintain stormwater BMPs, train personnel on BMP design, inspection, and routine maintenance, maintain a record of BMPs	Water Quality, Vital Habitats (if BMP type creates habitat)
Pollution Prevention and Good Housekeeping	At facilities owned or operated by the permittee, properly dispose of waste materials, prevent unauthorized discharges of wastewater or wash water, minimize pollutants in stormwater runoff, develop good housekeeping procedures, train personnel on pollution prevention and good housekeeping procedures	Water Quality

Permit Variations

The Clean Water Act and the NPDES permit program set the overarching framework for stormwater requirements, but individual jurisdictions are allowed some leeway in administering and issuing permits. For example, in Maryland a small MS4 general permit for federal and state facilities has been issued that is separate from the small MS4 general permit for municipalities. New York, Pennsylvania, Virginia, and West Virginia have small MS4 general permits that cover municipalities as well as non-traditional MS4s. The EPA administers an individual MS4 permit for all of Washington. D.C. which encompasses federal facilities.

Permitting authorities are allowed to have stricter MS4 permit requirements than the federal regulations and the jurisdiction's permit requirements always supersede the federal regulations. As an example, in Maryland the small MS4 general permit says that post-construction stormwater controls require the use of environmental site design to the maximum extent practicable. Federal regulations for small MS4 permits do not require the use of environmental site design.

MS4 permit requirements play a crucial role in managing stormwater runoff and reducing pollution in the Chesapeake Bay Watershed. By adhering to the Clean Water Act and NPDES program, DoD installations and other regulated entities can effectively control pollutants and contribute to DoD CBP goals and federal commitments, ultimately supporting the health and sustainability of the watershed.

Chesapeake Bay Action Team (CBAT) Updates

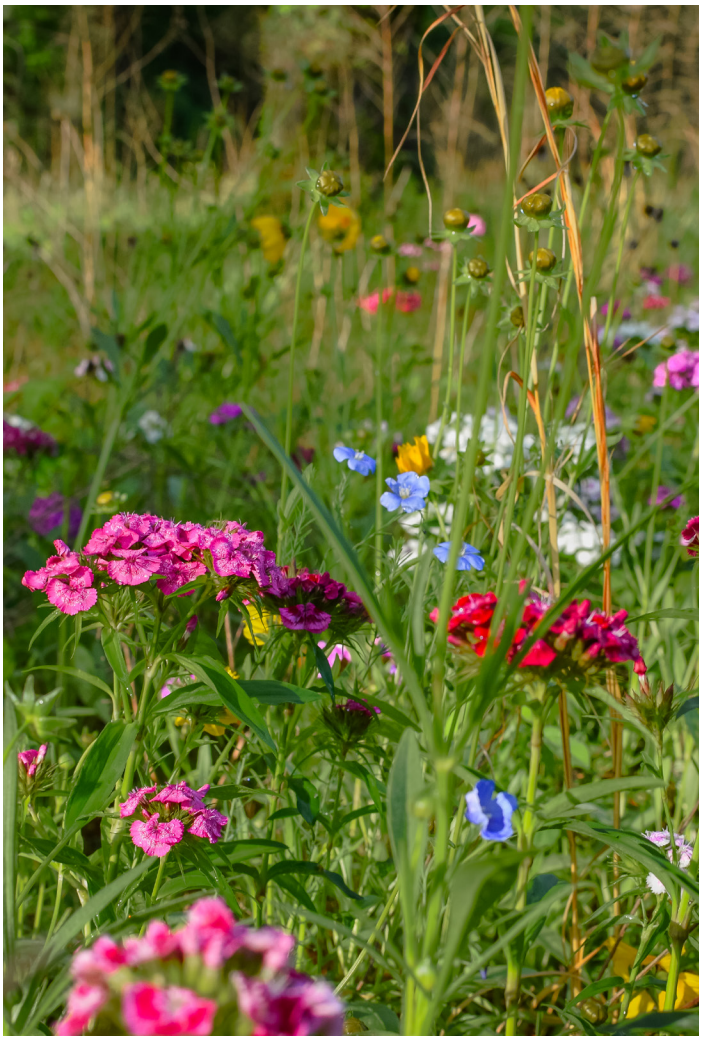

PHOTO CREDIT: MATTHEW MOORE FOR JBLE-EUSTIS ENVIRONMENTAL RESTORATION PROGRAM

Joint Base Langley-Eustis Pollinator Management Area

By Janet Goldbach Ehmer, CH2M HILL, Inc., (now Jacobs Solutions, Inc.)

Members of the Chesapeake Bay Action Team (CBAT) convened for its quarterly meeting on October 31, 2024.

Anonymous Mentimeter Poll

The DoD and CH2M HILL (now Jacobs) are using Mentimeter survey results to prepare future outreach materials and CBAT presentations to best suit the installations' immediate needs. During the October CBAT meeting, installation staff were asked for their feedback on ways to improved data collection used in a variety of program assessments, outreach materials, and reports to stakeholders.

Chesapeake Bay Service Leads and Installation Roundtable Discussion

CBAT members were provided with an overview of the Chesapeake Bay Sentinel Landscape Partnership. Members heard updates on the Middle Chesapeake Sentinel Landscape, the Virginia Security Sentinel Landscape, and the Kittatinny Ridge Sentinel Landscape. Navy Installation Resilience Program Managers provided updates on their initiatives throughout the watershed.

2023 DoD TMDL Progress Evaluation and 2025 DoD Implementation Plan

Members were provided with an overview presentation on the 2023 DoD Total Maximum Daily Load (TMDL) Progress Evaluation Report and 2025 DoD Implementation Plan. Installations were provided with a snapshot of DoD progress through state fiscal year 2023, planned effort through 2025, and the additional level of effort needed to achieve 2025 targets.

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Webinars and Links of Interest!

Upcoming and Past Webinars

(past webinars can be viewed at the links provided)

2/20/2025: **Network for Engineering With Nature: Fluvial Applications of Natural and Nature Based Features**
https://ewn.erdc.dren.mil/engagements/event/n-ewn-seminar-fluvial-applications-of-nnbf/

1/28/2025: **Monarch Conservation Webinar Series: Monarch Butterfly Conservation on Department of Defense Lands**
https://monarchjointventure.org/events/monarch-conservation-webinar-series?blm_aid=1611149313

1/16/2025 – SERDP-ESTCP webinar: **Demonstrating Technologies for Treating Soil and Groundwater Impacted by 1,4-Dioxane**
https://serdp-estcp.mil/resources/details/bd0ca7e9-50f3-413f-86e3-15fb1255ce74/demonstrating-technologies-for-treating-soil-and-groundwater-impacted-by-14-dioxane

12/11/2024 – Readiness and Environmental Protection Integration (REPI) webinar: **Navigating Military Readiness Through Responsible Project Execution**
https://www.repi.mil/Resources/Webinars/

Helpful Links

DoD REPI Program Newsletter, November 2024
https://content.govdelivery.com/accounts/USGOVREPI/bulletins/3c338b3

New Book: **Natural Infrastructure for Mission Readiness at Navy and Marine Corps Installations (available for download**
https://ewn.erdc.dren.mil/new-book-natural-infrastructure-for-mission-readiness-at-navy-and-marine-corps-installations/

New Guide: **Designing Living Shorelines for Sea Level Rise in Virginia**
https://www.wetlandswatch.org/designing-living-shorelines-for-sea-level-rise

This newsletter is produced by CH2M HILL, Inc. (now Jacobs) under NAVFAC Atlantic A-E Contract N62470-19-D-4015 in support of the 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.