



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

In-Person Stewardship Events Returned in 2021

By the Department of Defense (DoD) Chesapeake Bay Program (CBP) Team

Every year, volunteers from DoD installations throughout the Chesapeake Bay watershed gather to participate in environmental stewardship events such as Clean the Bay Day in parallel with the Chesapeake Bay Foundation. These events, such as Arbor Day, Earth Day, and Clean the Base Day, originally took off at Virginia installations and have expanded to DoD installations in other states with support from the DoD CBP.

After the annual effort was canceled in 2020 due to COVID-19 restrictions, installations were able to once again participate in Clean the Bay Day events in 2021 while following appropriate installation-specific COVID guidelines. Between 10 April and 11 June, over a thousand military and civilian personnel and their families came together at 18 installations to clean up shorelines around the Chesapeake Bay and its tributaries.

Cumulatively, over 18,000 pounds of trash were removed from 32 miles of shoreline during these events at DoD installations. **Trash and debris collected at DoD installations accounted for one third of all removed materials reported to the Chesapeake Bay Foundation.**

Clean the Bay Day models how cooperation between DoD installations, local communities, and corporations can have a positive impact on our shared coastal resources. During these events, all groups join together for a common cause: promoting clean water.

In addition to removing litter from our coastal ecosystems, Clean the Bay Day also educates participants about environmental challenges in the Chesapeake Bay watershed, such as habitat deterioration and stormwater pollution. These issues are key motivators behind Chesapeake Bay restoration and protection efforts. Through large scale cooperation and outreach, Clean the Bay Day turns volunteers into environmental stewards.

The DoD CBP would like to thank the installations who organized Clean the Bay Day events and the volunteers who provided their time and effort to clean up the waterways and shorelines at DoD installations. For more information about organizing a clean-up at your installation, visit <https://www.denix.osd.mil/chesapeake/dod-cbp-stewardship/clean/index.html> or contact Angela Jones at angela.s.jones1@navy.mil.



Norfolk Naval Shipyards (VA) employees volunteer in 2021 Clean the Bay Day.

IMAGE BY SHELBY WEST, VISUAL INFORMATION SPECIALIST FOR NORFOLK NAVAL SHIPYARD.

Clean the Bay Day 2021
DoD By the Numbers

32.2
miles of shoreline cleaned

1,002
volunteers participated

18,564
pounds of trash removed

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Commanders' Corner: Stormwater Management 101

By Gabrielle Bryson, Brown and Caldwell

Practices that manage stormwater are important yet often unnoticed elements of our landscapes. This article provides information to Commanding Officers on stormwater management, why it matters, and how DoD meets its regulatory requirements and other commitments to reduce stormwater pollution.

DoD installations are often highly developed, which prevents stormwater from soaking into the ground. Studies have shown that more impervious surfaces increase flood risk and stormwater pollution, impacting DoD's ability to carry out its mission. Environmental regulations have been developed to manage the quality and quantity of stormwater runoff from developed areas.

What is stormwater runoff control?

Precipitation flows over parking lots, streets, and lawns as stormwater runoff before it reaches a creek, river, or the ocean. Due to the local landscape, stormwater may collect in or flood low-lying areas. The network of inlets and pipes that make up the stormwater conveyance system move water away from developed areas to prevent flooding. Another strategy to control runoff is to collect and store stormwater in large impoundments where it can soak into the ground or slowly be released to downstream creeks and streams.

What is stormwater pollution?

Pollutants in stormwater runoff from developed areas can reduce water quality of the nearby waterbody, potentially making the water unsafe for consumption, fishing, or recreation, as well as harmful for plant and marine life.

The Clean Water Act added the control of water quality as a stormwater management requirement. As a result, DoD is responsible for implementing measures to reduce stormwater pollution due to requirements from municipal separate stormwater system and state development permits, Energy Independence and Security Act Section 438, total maximum daily loads (TMDLs), Executive Order 13508, and commitments under the Chesapeake Bay Watershed Agreement.

How can installations manage stormwater pollution?

Strategies used to remove stormwater pollution are called best management practices (BMPs). BMPs are often hiding in plain sight around DoD installations. Generally, they fall into one of the following categories:

Structural BMPs intercept stormwater runoff and either allow the water to soak into the ground or filter the intercepted flow before it is slowly released. Examples of structural BMPs include bioretention cells (Figure 1), permeable pavement, wet ponds, and constructed wetlands (Figure 2).

Manufactured treatment devices (MTDs) are BMPs developed by private companies that are often designed to remove additional types of pollutants (e.g., heavy metals, chemicals, etc.) or treat stormwater from small, highly urban areas.

Programmatic practices are preventative BMPs that remove potential sources of stormwater pollution. Examples of these practices include sweeping streets to remove sediment and debris and storm drain cleaning.

Natural resources BMPs are practices intended to mimic or restore the ability of natural systems, such as streams and wetlands, to remove pollutants. Examples include stream and shorelines restoration and riparian forest buffers.

Many BMPs that improve water quality also provide other benefits. By intercepting and storing stormwater, some natural resource, structural BMPs and MTDs add capacity to the stormwater system, reducing an installation's flood risk and building climate resilience.

Takeaway for Commanding Officers

Stormwater management is necessary for DoD's regulatory compliance and as a part of the larger system of assets and infrastructure that allow DoD to conduct its daily operations in support of the military mission. Installations can also gain additional benefits, from aesthetic value to climate resilience, through the strategic selection of stormwater management strategies. Commanding Officers can contact their installation's environmental program leadership to learn more about how stormwater is managed at their installation.



Figure 1. A bioretention area at Joint Base Myer-Henderson Hall (JBM-HH).



Figure 2. Constructed wetland at Naval Support Facility (NSF) Dahlgren.

PHOTO BY JENNY TOLBERT, JBM-HH.

PHOTO BY NSF DAHLGREN.



Success Story: 2021 Clean the Base Day at NMCP

By Rachel L. Donegan, Environmental Program Manager, NMCP

The NMCP/Naval Medical Readiness Training Center (NMRTC) at the Naval Support Activity Hampton Roads-Portsmouth Annex (NSA HR-PA) was the first military tenant in the Hampton Roads area to hold a 2021 Clean the Base Day event on 30 April. Given the challenges of the past year's COVID-19 pandemic, we believe it is fitting for a medical center to kick off Clean the Base Day 2021 for military bases in Hampton Roads.

A History of Environmental Stewardship at NMCP

Clean the Base Day is only one part of NSA HR-PA's broader commitment to environmental stewardship. In the past five years, NMCP has celebrated Arbor Day and Earth Day with annual facility events that promoted the expansion of tree canopy. In 2018, 45 six-foot trees were distributed to be planted, and in 2019, 150 tree seedlings were distributed to the public. In 2020 and 2021, these events were unfortunately canceled due to COVID restrictions.

The facility has also been recognized for its commitment to environmental sustainability. In 2016, NMCP received the Chief of Naval Operations Fiscal Year (FY) 2015 Environmental Award for Environmental Quality Non-Industrial Installation. NSA NR-PA is also an annual recipient of the Hampton Roads Sanitation District Pollution Prevention Gold Award, which recognizes a commitment to reduction of waste or toxicity to prevent pollution.

Before the pandemic, NMCP also held an annual Base Cleanup Day. Over the past five years, volunteers collected a minimum of 2,000 pounds of trash and debris each year. In addition, volunteers help maintain seven oyster pods at the installation, in partnership with NSA HR Natural Resource Manager, Taylor Austin. Facility staff were enthusiastic to safely resume this clean-up event in the summer of 2021.

Challenges Overcome

Facility staff and personnel had to overcome many challenges to hold this year's event. For months, NMCP/NMRTC personnel have manned COVID vaccination centers across the Hampton Roads area and the East Coast, including one at NMCP, which experienced such high demand that it was moved to the facility's auditorium. Staff have also supported the NMCP 24-hour COVID testing center and the hospital's clinics and wards, as well as last year's deployment of the U.S. Naval Ship Comfort.

Event Success

Despite COVID and the stress it has created for staff, personnel, and their families, volunteers at the NMCP Clean the Base Day event removed more trash and debris in 2021 than any NMCP cleanup in the past five years. During the two-hour event, 170 volunteers canvassed a mile and a half of shoreline, as well as other areas of the installation, and removed almost 4,000 pounds of trash and debris. Common debris included cigarette butts, plastic, and used facemasks. Some more unusual items included a baseball, half of a two-dollar bill, socks, a pillow, a cooler, and a Hercules license plate cover.

The event was staffed by NMCP staff, NMRTC service members, contract employees, and anyone visiting the hospital who wanted to join the fun! We also had a special visit from the Mayor of Portsmouth, Shannon E. Glover.



Volunteers participate in trash cleanup at NMCP/NMRTC's 2021 Clean the Base Day.

Continuing Our Commitment

As I walk around the campus during my daily duties as the NMCP Environmental Program Manager, I encounter staff eager to do what is right by the Elizabeth River, a tributary of the Chesapeake Bay, and to volunteer for environmental activities. From the start of their employment, staff are taught the importance of environmental awareness and how their job affects the world around us. The Elizabeth River Project is also discussed during employee training so staff understand the delicate, vital balance of life in the Elizabeth River and how we can protect that balance by conducting our daily business in an environmentally safe manner.

These educational efforts and our staff's enthusiasm for events like Clean the Base Day demonstrate that NMCP has a serious commitment to a clean and healthy Chesapeake Bay. We make bodies well and the Chesapeake Bay healthy by volunteering and supporting the initiatives of the DoD CBP.



PHOTO BY KATISHA DRAUGHN-FRAGUADA, PUBLIC AFFAIRS OFFICER, NSA HAMPTON ROADS.

Improving BMP Performance through Adaptive Management

By Gabrielle Bryson, Brown and Caldwell

In order to meet established water quality goals for the Chesapeake Bay TMDL, DoD installations should inspect and adaptively manage structural BMPs to ensure the BMPs are functioning as the design intended and providing the expected pollutant load reductions. Maintaining structural BMPs may also increase climate resilience and support natural resources, which contribute to the goals of Integrated Natural Resource Management Plans under the Sikes Act.

Even when BMP opportunity assessments are used to identify effective BMP types for local conditions, BMPs may still have performance issues post-construction. These structures may fail or become difficult to maintain due to unanticipated site-specific issues. Instead of accepting underperforming BMPs, which may not pass inspection, DoD installations should explore opportunities to improve their performance to meet the BMP's design criteria.

On 28 July 2021, the Center for Watershed Protection hosted a webcast on the City of Lancaster, Pennsylvania's Green Infrastructure Program, which highlighted the City's efforts to adaptively manage their existing urban BMPs to improve their performance. While the Chesapeake Bay Program Partnership (Partnership) uses the term "retrofit" to refer to specific BMP modifications (either conversions, enhancements, or restorations), the City of Lancaster uses the term more broadly to refer to adaptive management with the goal of maximizing the BMP's performance as designed and reducing maintenance requirements. This article provides an overview of the lessons learned from that program and how they may be applied at DoD installations.

Inspection and Performance Monitoring

Following construction, proactive monitoring of BMPs is necessary to identify performance concerns before costly failures occur that could result in major repairs or reconstruction of the BMP. BMP failure can also lead to increased flooding vulnerability or noncompliance with regulatory requirements, which may interfere with military operations. Routine inspections of BMPs and surrounding areas help determine whether they are functioning as intended, if they require maintenance, or if modifications are necessary.

There may be factors that impact the integrity or performance of BMPs that were not considered during design. For example, in the City of Lancaster, an intersection improvement project included four rain gardens. City inspectors observed that most of the original vegetation did not survive. While these plants were native to the region, the design criteria for the BMPs and pollutants in the stormwater runoff did not match the conditions in the surrounding woodlands where the plants selected were both common and robust. These factors included differences between soil media and local soils, as well as an accumulation of road salt in the beds. Since the City was able to recognize these issues early on, corrective actions were taken to replace the dying vegetation with plant species that grow in sandy soils and are tolerant to salt exposure.

Adaptive Management

If performance deficiencies are identified during inspections, appropriate maintenance or design modifications should be made to prevent reoccurrence. Likewise, post-construction issues that make maintenance unnecessarily expensive should be addressed through adaptive maintenance to reduce the BMP's lifecycle costs.



PHOTO FROM EPA REPORT: "OPERATIONS AND MAINTENANCE OF GREEN INFRASTRUCTURE RECEIVING RUNOFF FROM ROADS AND PARKING LOTS."



PHOTO BY CITY OF LANCASTER.

Images of a failed (top) and successful (bottom) bioretention planting area.



Lancaster Highlight: If at First You Don't Succeed

In 2013, the City of Lancaster installed bioretention cells and permeable pavers at the corner of Plum and Walnut Streets. Following construction, concerns arose regarding the BMPs' sustainability and performance due to sediment in the runoff from a nearby alley clogging the bioretention cells. Sediment buildup threatened the cells' drainage capacity.

In response to these concerns, the City installed permeable pavement in the alley. Not only did this modification increase the performance of the bioretention cells, but it also decreased the runoff from the neighboring alleyway.

This intersection is now capable of managing 1.4 million gallons of stormwater each year due to this and other retrofits to the suite of BMPs. In 2014, the Chesapeake Stormwater Network (CSN) recognized the Plum and Walnut Street project with the "Best Urban BMP in the Bay Award" (BUBBA).

Adaptive management strategies should be determined in consultation with subject matter experts. They can provide informed and specific recommendations to implement corrective actions and ensure that BMPs continue to provide water quality benefits and TMDL credit.

Applying to Future Projects

Adaptive management strategies and documentation of successful BMP operation can provide useful lessons for future stormwater management projects. Issues encountered and corrective actions taken on one project can provide valuable information for the design and site selection of other BMPs at an installation.

For example, information such as low survival rates of certain plant species, difficulty cleaning or maintaining structural components, or identification of design flaws in a similar project should be documented along with successful corrective actions. These lessons learned can then be applied to the planning and design phases of future BMPs to avoid unnecessary additional costs after construction.

Takeaway for DoD Installations

Inspection and maintenance of BMPs are required by the Partnership to verify continued water quality benefit to meet the Chesapeake Bay TMDL. However, routinely inspecting and maintaining BMPs can also help DoD be responsible stewards of their fiscal and land resources. Without BMP inspections and critical evaluation of their results, an installation may miss opportunities to prevent losses in BMP performance.

Installation environmental staff should also identify adaptive management opportunities for existing BMPs. Knowledge and experience shared through the CBAT, DoD CBP Journal success stories, the Commanders' Conference, and DoD CBP fact sheets can help installations make better informed decisions of future BMP designs that will best suit the site-specific conditions at each installation. Informed site selection, design, and adaptive management are especially critical for urban installations with limited available land.

Assessing whether established BMPs are performing as designed not only reduces the risk of failures but also ensures that the structure may provide the desired runoff reduction, pollution management, and ecological benefits, allowing the installation to stay focused on its military operations and mission.

IMAGE FROM CSN "BUBBAS HISTORY SPOTLIGHT: PLUM AND WALNUT ST. GREEN INTERSECTION (2014)".



The City of Lancaster implemented changes in and around the bioretention cell at the intersection of Plum and Walnut Street to improve its performance.

References

Center of Watershed Protection. Webcast 6: Stormwater Retrofitting. 28 July 2021.

City of Lancaster. Green Infrastructure Plan. April 2011. https://www.cityoflancasterpa.com/wp-content/uploads/2014/01/cityoflancaster_giplan_fullreport_april2011_final_0.pdf

David Wood, CSN. "BUBBAS History Spotlight: Plum and Walnut St. Green Intersection (2014)". 24 November 2020. <https://chesapeakestormwater.net/2020/11/bubbas-history-spotlight-plum-and-walnut-st-green-intersection-2014/>



Success Story: NWS Earle Leads a Regional Approach to Climate Resilience

By Dennis Blazak, Community Planning Liaison Officer, NWS Earle, edited by Brown and Caldwell staff

After suffering flooding and loss of electric power during Superstorm Sandy in October 2012, NWS Earle began to seriously consider the impacts of climate change and extreme weather on the installation. The storm damaged dozens of buildings and structures, causing \$50 million (M) in damage that took years to fully repair. Importantly, the surrounding community lost thousands of homes and businesses. Residents, including NWS Earle personnel, were displaced for months, and the transportation network and other critical services were disrupted for weeks with shortages of fuel and goods.

While the Navy had issued guidance on protecting critical infrastructure from sea level rise and climate change, NWS Earle realized that hardening structures around the base was not enough. Without coordinated action in the surrounding community, these climate threats would eventually leave NWS Earle without reliable and mission-essential utilities, ground transportation, or civilian workforce access.

Following several years of cooperation between the county government and NWS Earle, the Monmouth County Joint Land Use Study (JLUS) (now referred to as a Compatible Use Plan (CUP)) was released in 2017. This report, which was funded by the Office of Local Defense Community Cooperation, identified threats to the sustainable operation of the military base and tactics to reduce the impacts of climate change and sea level rise. The report's recommendations included increasing storm surge resistance and stormwater capacity along stream corridors through the Readiness and Environmental Protection Integration (REPI) Program.

In 2018, NWS Earle and Monmouth County partnered with REPI to protect over 191,000 acres of land, including NWS Earle's Military Influence Area and three public drinking water source watersheds. The project also proposed to conserve 5,000 acres, including stream corridors and upland areas, to increase stormwater capacity and improve water quality. Though only about \$2M of DoD funds are currently allocated for this land acquisition, partners of the Navy have already contributed \$32M to preserve over 500 acres within the REPI project area. Using the new DoD resilience authority through REPI, NWS Earle will implement additional resilience projects to increase storm surge resistance, including salt marsh restoration and living shoreline projects.

As cooperation between the NWS Earle, Monmouth County, and local communities increased, parties at multiple levels of government in a three-county area around NWS Earle noted a connection between their efforts. This led to the New Jersey REPI Challenge project, which was awarded \$1.9M in 2020 to implement resilience projects across 1.7M acres to protect five DoD installations from wildlife, storm surge, and stormwater flooding. This project uses a ten-year Intergovernmental Service Agreement (IGSA) to purchase military installation resilience services by the Navy from the State of New Jersey on behalf of all benefiting installations. The IGSA is the first of its kind within DoD.

In addition, the State of New Jersey is releasing a comprehensive adaptation strategy and plans in 2021. Recognizing the importance of coordinated action, the State has proposed a Sentinel Landscape that would include most of coastal New Jersey and would add two DoD installations to the New Jersey REPI Challenge project area. Although not approved as a Sentinel Landscape in 2021, a broad coalition of stakeholders, led by the State, continues to coordinate the efforts of the U.S. Departments of Agriculture, Interior, and Defense with the local government efforts to support long-term military resilience in the face of climate change, building on the work that has already been achieved. The State, with the support of the New Jersey Congressional Delegation, will apply again at the next opportunity.

Recognizing the interrelated priorities of programs like CUPs, REPI, and Sentinel Landscapes and leveraging federal and non-federal partnerships allows DoD installations to maximize their return on investments to sustain the mission. Aligning these resources also provides the potential to accelerate the achievement of the DoD CBP's goals to improve water quality, protect natural resources, build climate resilience, or provide recreational access, while also providing valuable co-benefits which help fulfill DoD's commitment to environmental stewardship.



Ammunition Loading Pier Complex at NWS Earle.

IMAGE FROM 2020 REPI CHALLENGE FACT SHEET.



Chesapeake Bay Action Team Updates

By Gabrielle Bryson, Brown and Caldwell

Members of the CBAT convened for their quarterly meeting on 29 July 2021. Members reviewed ongoing Chesapeake Bay-related service and installation projects and activities and listened to three presentations.

Presentation 1: 2021 Datacall Overview and Training

Stephanie MacDurmon reviewed the FY2021 BMP datacall. During the BMP portion of the annual DoD CBP datacall, installations utilize the provided datacall template to report progress BMPs (implemented between 1 July 2020 and 30 June 2021), planned BMPs (to be implemented between 1 July 2021 and 31 December 2025), and historical BMPs (implemented prior to 1 July 2020). Ms. MacDurmon discussed changes to the reporting template across different jurisdictions and highlighted reporting expectations for certain BMP types. The focus areas for the FY2021 BMP datacall are correct reporting of annual BMPs, complete reporting of planned BMPs, collecting information to inform coordination with jurisdictions, and collecting information on stream and wetland restoration.

The Projects and Indicators (P&I) datacall was distributed to installations via e-mail on 31 August. Ms. MacDurmon reviewed changes to the Installation Information sheet and noted the focus areas for the FY2021 P&I datacall are comprehensive reporting of projects and funding amounts and collecting information on climate resilience projects.

Presentation 2: Partnership's Executive Council Climate Directive and DoD's 2022-2023 Water Quality Programmatic Milestones

Kevin Du Bois provided an overview of potential DoD milestones related to climate change for 2022-2023. On 1 October 2021, EPA will sign the Partnership's newly developed Climate Directive on behalf of all federal agencies, including DoD, making a commitment to prioritize climate resilience. The DoD CBP will be required to develop water quality programmatic two-year milestones that address the impacts of climate change. The DoD CBP will draft these milestones in coordination with the DoD Service Leads. The DoD CBP proposed milestones currently utilize a combination of existing datacall metrics (REPI projects and stream/wetland restoration with resilience co-benefits), DoD Climate Assessment Tool vulnerability assessments, and outreach materials (e.g., fact sheets with climate-related topics). If installations have comments or feedback on the proposed milestones, contact Mr. Du Bois. The draft final milestones will be presented for any remaining discussion at the October CBAT meeting.

Presentation 3: Flood Inundation Surge Hazard (FISH) Application Demonstration

Jessica Rodriguez provided an overview of the FISH application in the Navy's GeoReadiness Explorer Framework. FISH identifies buildings, natural assets, and installation areas that are vulnerable to flooding. Users may also import data, such as BMP locations, to identify impacts to specific structures. The results can support management of existing facilities and critical infrastructure, site selection for future improvements, and development of emergency procedures. While the application does not focus on stormwater infrastructure, it can be used to identify BMPs and natural assets that are predicted to be impacted by changes in climate for prioritization of retrofits or future planning of climate resilient BMPs. Navy personnel with a Common Access Card (CAC) can directly access FISH through the GeoReadiness Explorer Framework. Non-Navy personnel with a CAC interested in access to FISH should contact Ms. Rodriguez for additional steps needed to acquire access.

Chesapeake Bay Service Leads and Installation Roundtable Discussion

Elisa Ortiz from the U.S. Army provided a summary of the discussion on as-built requirements that took place at the Maryland (MD) Partnership meeting on 28 July. In summary, the as-built requirements are based on the age and type of BMP with more requirements for Code 378 small ponds and BMPs with an SF number of 2011 or later. Mr. Du Bois can provide a copy of the MD Partnership meeting summary upon request.

DoD Chesapeake Bay Program Updates

- Clean the Bay Day events were held between 10 April and 11 June. DoD installations accounted for one third of the collected trash reported to the Chesapeake Bay Foundation.
- The 2020 DoD CBP State-specific BMP Crediting Reports have been released.
- The DoD CBP FY2020 Annual Progress Report is available on DENIX.

The next CBAT meeting is scheduled for 28 October 2021.



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✓ Check it Out

2020 Chesapeake Bay Watershed Score Card from the University of Maryland Center for Environmental Science is now available. For more details on the 2020 health score and indicators analyzed for the watershed, visit: <https://www.umces.edu/news/chesapeake-bay-health-score-held-steady-in-2020>

Specific indicator scores for Chesapeake Bay are also available for the entire watershed and by region at: <https://ecoreportcard.org/report-cards/chesapeake-bay/bay-health/>

Growing Your Watershed Stewardship Program. Chesapeake Stormwater Network webinar, 15 September 2021, 12:00 pm to 1:30 pm. EDT. A recording of this webinar and other Chesapeake Stormwater Network webinars are available at: <https://chesapeakestormwater.net/category/events/archived-webcasts-events/>

Chesapeake Bay Program Climate Change Modeling 2.0. The Science and Technical Advisory Committee recently released a technical report summarizing a 2018 workshop on how to assess the effect of climate change on the Chesapeake Bay TMDL using the Partnership's suite of models and assessment framework. Several recommendations have already been implemented and support recent policy decisions. To access the report, visit: <https://www.chesapeake.org/stac/document-library/chesapeake-bay-program-climate-change-modeling-2-0/>

Stormwater BMP Maintenance Webinar: If We Build It, Can We Maintain It? Chesapeake Bay Trust webinar, recorded from 26 May 2021. View recording at: <https://vimeo.com/582700635>

2022 REPI Challenge Request for Proposals has been released with background information, timing, and eligibility for the 2022 REPI Challenge. For access to information on this year's challenge, reference the Request for Proposals document at: https://www.repi.mil/Portals/44/Documents/REPI_Challenge/2022_REPI%20Challenge%20RFP_FINAL_20210910.pdf

The following pre-proposal form is due 22 November 2021 for 2022 REPI Challenge applicants: https://www.repi.mil/Portals/44/Documents/REPI_Challenge/2022-REPI-PreProposal_090821_FINAL.pdf

CBAT Quarterly Conference Call and Meeting, 28 October 2021, 10:00 am to 12:00 pm. EDT.

MS Teams Conference Call Phone Number: (888) 404-2493

Conference ID: 845 706 237#

This meeting will include a discussion about DoD's draft final two-year programmatic water quality milestones, natural resource projects with water quality and climate resilience co-benefits, and DoD's 2020 progress evaluation. Contact Kevin Du Bois or Jessica Rodriguez to receive a meeting invitation with a web link.

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