



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

One Mission. Shared Leadership. Continuing Commitment.

By Sarah Diebel, DoD CBP Coordinator

Representatives from 53 DoD organizations across the Chesapeake Bay watershed, including commanding officers (COs) from 17 installations, convened at Marine Corps Base (MCB) Quantico on August 22 for the 2019 Chesapeake Bay Commanders' Conference (CBCC). The conference brought together a great mix of Department of Defense (DoD) civilian and military leadership, environmental staff, and state and federal partners to discuss our shared environmental responsibilities and obligations to the Chesapeake Bay.

Our purpose, as expressed in the conference theme, was to demonstrate how we, as DoD service members and employees, are united by one mission, shared leadership, and our commitment to environmental and military objectives. The day's agenda featured speakers from installations, DoD leaders, stakeholders from state and federal agencies, the Chesapeake Bay Program partnership (Partnership), and DoD Chesapeake Bay Program (CBP) staff. Their topics included background on the Chesapeake Bay watershed and the total maximum daily load (TMDL), the DoD CBP, and DoD programs that advance environmental priorities. They also discussed how projects can provide co-benefits to climate resilience, natural resources, water quality, and the mission. Installation staff also provided real-world examples of these concepts in action with success stories of projects completed in the watershed.

The CBCC was well received by those who attended. Feedback from the conference survey has provided helpful insight into how the DoD CBP can strategically evaluate our program and areas of focus. We are currently utilizing the survey results, in combination with other feedback, to assess the current DoD work products and how they can be improved to better support commanders, media managers, and other DoD staff and stakeholders. The Bay TMDL has driven a significant amount of environmental work at installations in the past decade, and correspondingly, our work products, like this Journal, have focused heavily on water quality. However, we recognize that installations' environmental needs entail much more than that, and we are committed to determining how best to cover the topics you most want to know about.

You'll learn more about the CBCC in this Journal, which includes an overview of the conference proceedings, feedback from the conference survey, and outcomes and next steps we have identified to date. This Journal also features a new success story from Joint Base Myer Henderson Hall's (JBM-HH's) successful design and



PHOTO BY STEPHANIE MACDURMON, BROWN AND CALDWELL

construction of best management practices (BMPs) to meet water quality goals. They also note how the installation funded the project and its future maintenance, a hot topic noted at the CBCC. Finally, recognizing that building a shared purpose is a key component to reach our goals, although a challenge with so many competing priorities, this Journal includes discussion about building a mutual sense of purpose and commitment.

The CBCC was the product of just three months of extensive preparation and planning by our DoD CBP and Brown and Caldwell staff, Rear Admiral Charles Rock (Commander Navy Region Mid-Atlantic), installations, and the speakers who graciously offered their time and expertise to attend the conference. I would like to extend our thanks to them and to those who contributed to this Journal, including Ms. Jenny Tolbert from JBM-HH.

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The 2019 DoD Chesapeake Bay Commanders' Conference: Supporting the Local Leadership Outcome

By Sarah Diebel and Kevin Du Bois, DoD CBP

While the CBCC is not a new concept, the last conference where military and civilian DoD leaders convened was in 2008. Even though eleven years have passed, DoD has continued to remain a recognized leader among the Partnership in its restoration and protection efforts. Since that time, though, quite a bit has changed, and leadership agreed that bringing together military commanders was the next step to ensure sustained engagement through 2025. Therefore, we identified several critical success factors, keeping our focus on military leaders:

- Increasing engagement and buy-in
- Meeting our attendance goal
- Highlighting successes to promote learning
- Strengthening relationships between the DoD mission and environmental priorities
- Sustaining the DoD's commitment towards the Chesapeake Bay restoration and protection
- Conveying regulatory requirements
- Discussing challenges, consequences, and solutions of Chesapeake Bay implementation

CBCC Overview

The CBCC proceedings, posted on the CBP DENIX website (authoring.denix.osd.mil/chesapeake/2019-dod-chesapeake-bay-commanders-conference/), included remarks from Rear Admiral Charles Rock, Commander Navy Region Mid-Atlantic, and our hosts at MCB Quantico, along with presentations from Ms. Ann Swanson with the Chesapeake Bay Commission, Ms. Sarah Diebel with the DoD CBP, Mr. Jim Edward with the US Environmental Protection Agency (EPA), Ms. Stephanie MacDurmon of Brown and Caldwell, Mr. Matt Rowe from the Maryland Department of the Environment, Mr. Kevin Du Bois with the DoD CBP, and Ms. Jamie Simon of the Readiness and Environmental Protection Integration program.

Though each speaker highlighted different elements that impact the Chesapeake Bay watershed restoration, DoD's role, obligations, and resources were recurring messages throughout the day. They also recognized DoD's demonstrated leadership among federal agencies in the Partnership, highlighted significant work that lies ahead to reach the Chesapeake Bay TMDL's water quality objectives, demonstrated how environmental projects can meet multiple



PHOTO BY KEVIN DU BOIS, DOD CBP

The CBCC brought together installation leadership, staff, and non-DoD partners in the watershed to discuss DoD's environmental priorities.

installation objectives, and examined how DoD's environmental obligations and priorities can align with its military mission.

Throughout the day, representatives from 13 installations provided short descriptions of successful projects they had implemented, which included a wide range of project types and benefits, including wetland restoration, innovative BMPs, and land conservation projects. The success stories were grouped according to which Executive Order 13508 category the project most benefited, though each speaker also included a discussion of the co-benefits their project achieved.

At the end of the day's proceedings, Admiral Rock noted three key take-aways in his closing remarks:

1. Recognize that funds are limited and identify ways to pool resources to achieve federal planning goals and other Chesapeake Bay goals. Evaluating opportunities for partnering and co-benefits can assist in these times of fiscal austerity and demonstrate the DoD's wise use of taxpayer dollars.
2. Leverage the Chesapeake Bay Commission and their network.
3. Increase transparency by exploring the development of Installation-specific Chesapeake Bay Progress and Status Reports.



In his presentation, Jim Edward with EPA noted DoD's innovation and leadership through its participation in the Partnership, its contribution to the Phase III Watershed Implementation Plans, and its development of tools and mechanisms to proactively track DoD's progress.



CBCC Participation

The final attendee count was 91, including 18 Military Officers. Several federal and state partners participated from the EPA, Maryland, the District of Columbia, and Pennsylvania. Military Officers/COs from the following installations and regions attended:

- Fort Belvoir (Virginia)
- Fort George G. Meade (Maryland)
- Joint Base Anacostia-Bolling (District of Columbia)
- Joint Base Andrews (Maryland)
- Joint Base Langley-Eustis (Eustis) (Virginia)
- Joint Base Langley-Eustis (Langley) (Virginia)
- MCB Quantico (Virginia) (2 COs present)
- Naval Air Station (NAS) Patuxent River (Maryland)
- Naval Station Norfolk (Virginia)
- Naval Support Activity (NSA) Mechanicsburg (Pennsylvania)
- Naval Weapons Station Yorktown (Virginia)
- NAVFAC Mid-Atlantic (MIDLANT) (Region)
- Navy Region Mid-Atlantic (Region)
- NAVFAC Washington (District of Columbia)
- NSA Hampton Roads (Virginia)
- United State Army Corps of Engineers (USACE), Norfolk District (Virginia)
- USACE, Baltimore District (Maryland)

CBCC Feedback

A major source of attendee feedback was the conference survey, which requested that attendees rate the quality and relevance of the presentations, if the CBCC themes were communicated, and overall conference logistics. In total, there were 60 survey responses, representing a 66% response rate among all attendees.

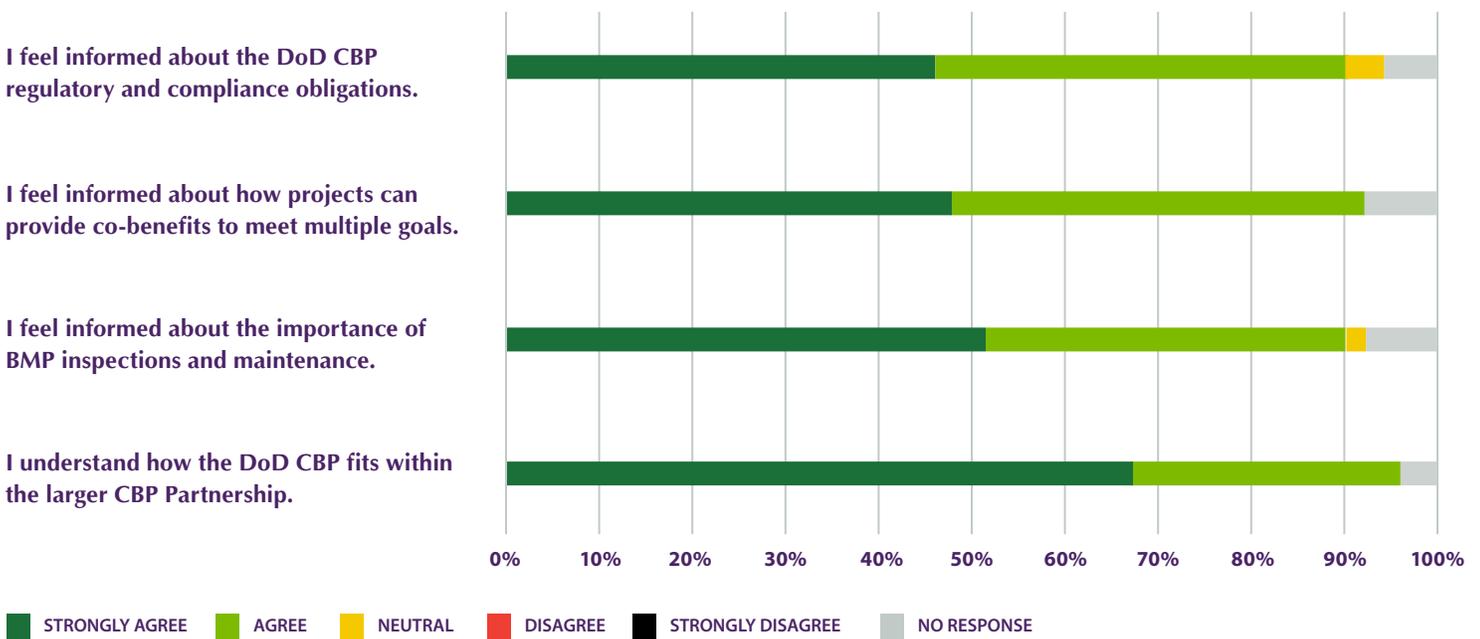
Objectives, Presentations, and Venue: The summary graph below provides results to gauge if the CBCC met its learning objectives based on agreement with four key concepts: the DoD CBP’s regulatory and compliance obligations, the concept of project co-benefits, the importance of inspection and maintenance of BMPs, and the DoD CBP’s role in the larger Partnership. Zero respondents indicated that they disagreed or strongly disagreed with the statements, demonstrating that attendees recognized and understood these important elements.

Future Conference(s): 98% of the responses indicated they would find value in another conference before 2025, with almost half of the responses requesting that the next conference occur in 2021. In addition, some attendees suggested combining in-person Chesapeake Bay Action Team (CBAT) meetings with the conference or considering alternating these two events so that face-to-face interactions occur on a more frequent basis.

In terms of future conference topics, some noted they would like to see more installation success stories and best practices in greater detail, additional content geared toward COs and installation tenants, and more updates on installation progress.

Survey responses also suggested that future conferences include non-DoD representatives from potential partner agencies, such as other federal agencies or state transportation departments.

SURVEY RESPONSES RATING WHETHER THE CBCC MET THE ESTABLISHED LEARNING OBJECTIVES



Conference (continued from page 3)

Lastly, inferences from survey responses indicated the conference provided a valuable foundation on the ‘who, what, when, where, and why,’ but more discussion is needed on the ‘how’ of environmental implementation. Therefore, future conference topics (or other tools/forums) could include education on types of low-maintenance BMPs, innovative practices, the process that installations followed to have their projects funded and constructed, and other topics relevant to the DoD including wetland banking, leased agricultural lands, and flooding impacts. A suite of subjects mentioned from the surveys and in conversation are being evaluated to identify the best venue to enhance installation knowledge and information sharing. In the interim, installations are encouraged to reach out to success story speakers for inter-installation assistance from DoD subject matter experts.

Challenges: Funding was the most frequently cited challenge faced by installations in accomplishing their regulatory and compliance objectives. One suggestion included a request to engage with decision makers for funding of BMP construction and/or maintenance at higher DoD leadership echelons to increase understanding of and garner support for environmental requirements.

Program Improvements: The survey asked attendees to suggest specific program improvements for the DoD CBP and future conferences. Based on the survey responses and Admiral Rock’s recommendations, the DoD CBP compiled a series of actions that have potential to improve program performance. Some actions have already gained momentum and are being vetted through the DoD chain of command, including:

- Investigate the development of Installation Chesapeake Bay Progress and Status Reports. Their development will require engagement and coordination with Chesapeake Bay installations and their leadership through CBAT meetings and other discussion forums.
- Facilitate coordination between installations and federal/state agencies for pilot projects.
- Plan the CBCC as a biennial activity.
- Expand the DoD CBP’s library of written materials and presentations on BMP funding. There is broad interest in educational materials and outreach from the DoD CBP to navigate the process to fund and implement BMPs at installations.
- Identify ways to increase engagement with COs.
- Recommend installation environmental staff brief new installation leadership on the DoD CBP.
- Use the survey responses from the CBAT meeting and CBCC to develop topics that address identified needs for distribution through DoD CBP Journals, fact sheets, and CBAT presentations.

Overall, increased communication was the most frequent suggestion. Several COs indicated they did not know about the DoD CBP until they attended and would like to see more outreach and facilitated collaboration.

Conclusions

The CBCC generally achieved the identified critical success factors and successfully communicated the DoD’s continued leadership among federal agencies, including the connection between the DoD mission and its environmental priorities. Based on feedback about the value of the information conveyed at the conference, the CBCC also helped sustain attendees’ commitment to the Chesapeake Bay. Areas for improvement for a future conference are to increase CO attendance and discussions of consequences if federal environmental targets are not met and strategies to accomplish environmental goals. All the observations and suggestions will be evaluated for DoD CBP consideration, which will include identifying current mechanisms that can support greater communication of these topics and if additional mechanisms are needed.



PHOTO BY KEVIN DU BOIS, DOD CBP



Commander's Conference: By the Numbers



91 attendees

13 success story presentations

93%

of attendees felt informed about how projects can provide co-benefits

66%

survey response rate

Virginia

installations had the greatest representation (58%)



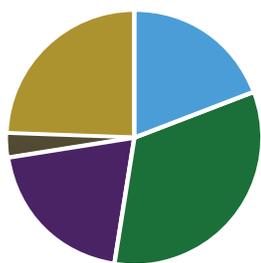
30 survey respondents said that they were interested in conducting an environmental pilot project at their installation

95% of attendees rated the conference venue and lodging as "good" or "excellent"

97%

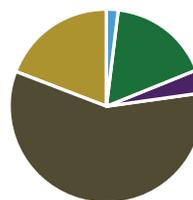
of attendees felt informed about DoD's role in the Partnership

Navy had the greatest representation by Service



ATTENDANCE BY ROLE

- 19%** Installation or Deputy Commander
- 33%** Installation Environmental Program Director, Environmental Program Manager, or similar
- 20%** WQ or NR Program Manager or similar
- 3%** Non-DoD Representative
- 24%** Other

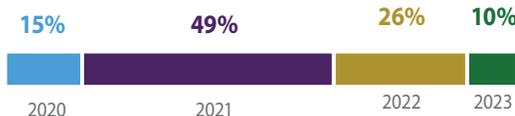


ATTENDANCE BY STATE REPRESENTED

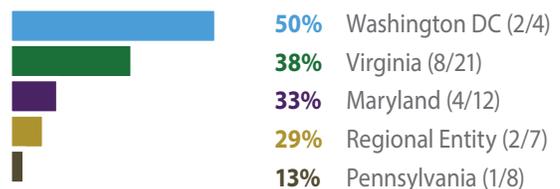
- 17%** Maryland
- 4%** Pennsylvania
- 58%** Virginia
- 19%** Washington DC
- 2%** Regional Entity

2021

is the preferred year for the next CBCC



PERCENTAGE OF INVITED COs IN ATTENDANCE



Building Purpose and Motivation for Environmental Priorities

By Mira Micin, Brown and Caldwell

The success of the Partnership relies on the active participation and engagement of each member organization. These members' organizations are composed of individuals with a range of duties and priorities with varying relation to the Chesapeake Bay, depending upon where they sit or their role. For individuals without a tangible professional relationship, personal connection, or perceived responsibility to the Partnership's objectives, it can be difficult to understand or align with its goals. This is especially true in cases where one believes their purpose or mission is fundamentally different, more valuable, or in conflict with Partnership priorities. At DoD installations, military and civilian personnel work on environmental affairs, which may be perceived by the installation's leadership as an obstacle to its military mission. Therefore, environmental leaders at DoD installations have a challenge: to secure and sustain commitment from their installation leadership with regular transitions among staff. Increased engagement and commitment from installation commanders and other DoD leadership remains a top priority for the DoD CBP because it garners support at the highest levels to ensure DoD remains a leader among the Chesapeake Bay partners. According to Mr. Dan Cable's article "Helping Your Team Feel the Purpose in Their Work", it's no secret that direct, face-to-face contact helps people feel more engaged in and find greater meaning from the work they do. The hard question is how to utilize direct contact to create a shared sense of purpose. Cable provides several **strategies to effectively communicate a program's purpose and build a committed team through personal, authentic, and perpetual connection**. This article will discuss these strategies and their potential application in a DoD context.

The 2019 DoD CBCC accomplished several important objectives, namely, describing the DoD CBP mission and demonstrating how it aligns with the overall DoD mission of military readiness. The conference is only a first step, though, to bridge the gap between

commanders and environmental staff. In their survey responses, CBCC attendees said they wanted more communication from the DoD CBP, including in-person meetings, on a range of topics. The DoD CBP will continue to facilitate and direct communication and coordination among DoD stakeholders. However, increasing communication alone is not enough to instill purpose or connection in people. Mr. Cable indicates that **the best way to instill purpose in others is by helping them see the impact of their actions and develop their own narrative about why what they do is important**. To put it simply, "make it personal."

The concept of connecting people to the impacts of their work was so important to a top-level executive at a major corporation that she invested in a program that allows employees to spend a considerable amount of time interacting with their clients to understand the purpose of their projects. As a result, employees returned more engaged and enthusiastic about their projects and had a greater understanding of the importance of the role they play. In a DoD setting, consider how you can directly engage your commander by inviting them to visit a project site (especially a water quality project with other environmental or resilience co-benefits), attend a tree planting event, or participate in your annual Clean the Base Day. These events can be an opportunity to align the commander's objectives—whether they be mission-related benefits, recognition, or environmental stewardship—and your program's priorities. You should always be prepared to help leadership understand the connections between environmental projects, programs, and events and their responsibility to provide for military readiness.

An authentic message requires a personal and demonstrated commitment. Mr. Cable notes that **you must act consistently with your purpose to to be received as authentic**. A good example of how to demonstrate commitment is the installation success stories highlighted at the CBCC. They provided concrete examples of



PHOTO BY KEVIN DU BOIS, DOD CBP

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

Environmental requirements and programs may seem like a distraction to the military mission, but a healthy environment provides for realistic military training and testing environments.



projects with real benefits, and co-benefits, for the installation's environmental and mission priorities. Since the conference, members of the CBAT have also requested more examples of success stories, both as a source of lessons learned and as an opportunity to communicate their program's value to their commanders and community. In the context of Mr. Cable's call to make your message personal and authentic, these success stories make environmental programs more "personal" for installation commanders. They also create opportunities to see their environmental program's impact and their staff's commitment. When framing your own future success stories, consider how you can connect meaningful outcomes that your commander values with meaningful measures of success (e.g. this project will reduce flooding of this building by 80%), instead of conceptual descriptions of the project's goals (e.g. build resilience).

Once you build a personal and authentic connection to your purpose, Mr. Cable emphasizes that **you must also routinely reinforce your message of purpose with your team**. For today, regular communication and reminders can strengthen commitment and can help bridge transitions between staff and leadership. CBCC participants agreed that the presentations provided valuable insight into what the DoD CBP does and how it fits into the larger Partnership. However, a small proportion of commanders from installations in the Bay watershed attended the conference, and this remains a target for improvement.

Environmental leaders have an opportunity to partner with the DoD CBP to create a shared understanding of purpose with their commanders. The DoD CBP continues to serve as a bridge between individual installations, their commanders, DoD leadership, and the state, federal, and regional partners within the Partnership. In pursuit of this goal, the DoD CBP identified several recommendations and next steps to further assist installations:

- Evaluate opportunities for future conferences and in-person coordination opportunities
- Develop and release outreach materials focused on topics suggested by CBAT members
- Enhance coordination with installation commanders through new and existing channels within the DoD CBP

The CBCC was the first step in a larger effort to integrate environmental priorities in the minds of installation commanders and other efforts from the DoD CBP will continue. However, installation environmental leaders have the best opportunity to build shared purpose today in a way that is personal, authentic, and ongoing. They possess the greatest familiarity with their commanders, their priorities, and the scope of their program and are best equipped to communicate effectively the real impact of DoD's environmental work, both for the Chesapeake Bay and military readiness, through personal, consistent, and benefits-focused discussion and coordination.

Article adapted from: Cable, Dan. 2018. "Helping Your Team Feel the Purpose in Their Work." *Harvard Business Review*. <https://hbr.org/2019/10/helping-your-team-feel-the-purpose-in-their-work>



The CBCC highlighted successful projects at 13 DoD installations in the Chesapeake Bay. Each presenter also discussed the secondary benefits of their projects.



Colonel Patrick Kinsman (USACE) helped the Chesapeake Bay Foundation place oysters on newly constructed reefs in the Elizabeth River.

PHOTOS BY ANC, NSA HAMPTON ROADS

PHOTO BY NSAF DALGREN, MCB QUANTICO

PHOTO BY CBF



Managing Chesapeake Bay Pollutants of Concern with Small-Scale BMPs

By Jenny Tolbert, JBM-HH

To meet the pollutant reduction goals of the Chesapeake Bay TMDL, the EPA and states in the Bay watershed use stormwater permits as one mechanism to reduce the amount of pollutants entering the Bay. As permit holders, military installations throughout the Chesapeake Bay watershed are working to reduce the amount of sediment, nitrogen, and phosphorus in stormwater to meet their permit-required TMDL pollutant reductions. JBM-HH, located in Arlington County, Virginia, is no exception. As a small municipal separate storm sewer system (MS4) operator, JBM-HH is required to reduce the amount of these three pollutants in its stormwater runoff incrementally over three permit cycles.

JBM-HH was required to reduce pollutant loads by 5% of the total required reductions when the first MS4 permit cycle ended in 2018. JBM-HH is somewhat unique compared to other Army installations in the watershed because the installation consists of only 269 acres, approximately 50% of which is covered with buildings, roads, and other impervious surfaces. Because of the small size of the installation and its location in an ultra-urban setting, space is at a premium, and any available space is highly sought after by various installation organizations who need the land for their own missions.

The limited amount of available land for stormwater BMPs, particularly in locations where treatment of stormwater runoff could be most beneficial, creates significant challenges in identifying options for BMP implementation to meet JBM-HH's required pollutant reductions. Many military installations take advantage of the high number of pollutant reduction credits available from stream restoration projects. With no streams located on JBM-HH property, this high-

impact BMP was not an option. After conducting an opportunity assessment, JBM-HH and the USACE identified six locations on base where BMPs could be constructed, relying on the combined pollutant reductions from small-scale BMPs to meet reduction goals.

Identifying and Implementing BMPs

The first two constructed BMPs replaced a half-acre asphalt-paved area located in the middle of JBM-HH's largest parking lot. The half-acre area, which was originally constructed as tennis courts, had an elevation approximately one foot higher than the pavement of the surrounding parking lot, preventing the area from being used as a standard parking area after use as a tennis court ceased and the fencing was removed. The former tennis court was replaced with a bioretention area on one half and permeable pavement parking area on the other half. This design has the added benefit of increasing JBM-HH's available parking by providing an overflow lot for large events.

A third BMP was constructed within the same parking lot by replacing two grass-covered islands with a bioretention area – with no resulting loss of parking spaces. Implementing these three BMPs within JBM-HH's largest parking lot was particularly beneficial as these BMPs treat stormwater from a large area of impervious pavement.

Stormwater from a second paved parking lot next to the Fort Myer Fitness Center is now directed to bioswales installed in two long, narrow parking lot islands. These bioswales achieve pollutant reductions without the loss of valuable parking spots and take advantage of space that would be of no use to other installation organizations.



Permeable pavement replaced a portion of a former asphalt-paved tennis court area.



A bioretention area replaced two grass-covered parking lot islands.

PHOTOS BY JENNY TOLBERT, JBM-HH



To overcome its limitations as an ultra-urban installation, JBM-HH selected strategic and high-impact BMP sites that made the best use of the available space.

Further south on base, permeable pavers replaced an asphalt-paved overflow lot where large utility vehicles were previously parked. Now, the overflow lot provides parking for the nearby businesses, and the interlocking pavers visually refreshed an area that was once deteriorating asphalt.

The sixth BMP took advantage of one of the few open areas on base that was not suitable for development. A tiered bioswale, constructed in a grass-covered area uphill from an inlet to one of the installation's outfalls, collects stormwater from an upgradient parking lot and roadway area.

Assessing BMP Benefits

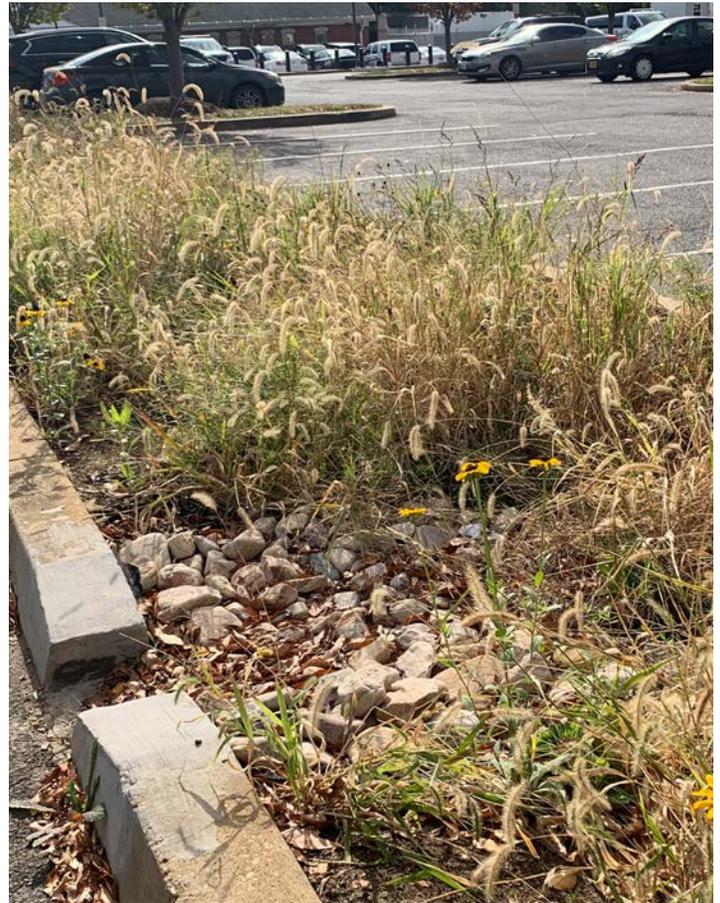
These small-scale BMPs are designed to annually remove a combined total of approximately 32 pounds of nitrogen, 4.5 pounds of phosphorus, and 1,902 pounds of sediment from JBM-HH's stormwater discharges. These totals are equivalent to approximately 12% of the third permit cycle goal for nitrogen, 16% for phosphorus, and 6% for sediment, exceeding the first permit cycle reduction goal of 5% for each pollutant of concern.

To obtain funding for the design and installation of these six BMPs, USACE and JBM-HH developed cost estimates and worked with Army Environmental Command to request the funds from Installation Management Command (IMCOM). The total cost of the six BMPs, as provided by IMCOM, was approximately \$2,995,239.

With the credit from the BMPs, JBM-HH reached its permit-required pollutant reduction goals for the first MS4 permit cycle, and the Environmental Management Division (EMD) on base also used the installation of these new BMPs as an opportunity to further educate the public on the importance of preventing stormwater pollution and protecting the Chesapeake Bay. Various organizations on base were informed of the purpose of the BMPs and regularly updated on their implementation progress via Environmental Quality Control Committee meetings. Additionally, articles published in the installation's newspaper, The Pentagonam, spread the word about the newly-constructed BMPs. The EMD is also creating informational signs for the public, to be posted near the BMPs that describe how each one works.

Ensuring Future Maintenance

The successful implementation of these BMPs helped JBM-HH meet its permit-required reductions. However, another major requirement of the installation's MS4 permit is to ensure all stormwater BMPs on base are regularly inspected and maintained. The EMD developed inspection and



Bioswales in narrow parking lot islands collect and treat stormwater.

PHOTO BY JENNY TOLBERT, JBM-HH



Permeable pavers replaced deteriorating asphalt in an overflow parking area on base.

PHOTO BY JENNY TOLBERT, JBM-HH



Small-Scale BMPs (continued from page 9)

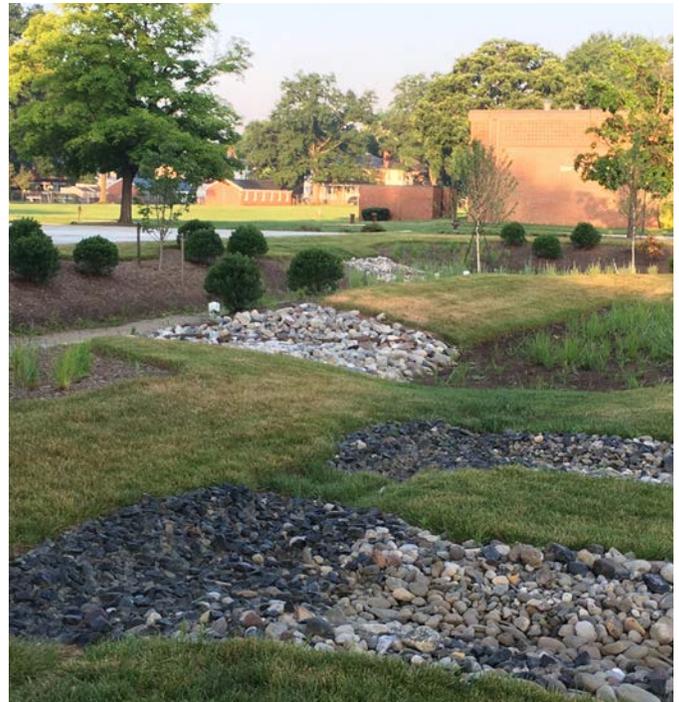
maintenance standard operating procedures (SOPs) for each type of BMP located on the installation, based on regulatory and manufacturer's guidance, as well as BMP-specific maintenance requirements identified in available as-builts. These SOPs are also used as guidance for developing inspection and maintenance programs at JBM-HH.

In 2018, JBM-HH contracted with the USACE Baltimore District to conduct annual inspections of all aboveground and underground structural BMPs on base. The inspections were funded with JBM-HH Department of Public Works (DPW) funds using a Military Interdepartmental Purchase Request to the USACE Baltimore, and the contract includes a base year plus four option years to ensure inspections are completed annually over the next five years.

In 2015, USACE developed JBM-HH's Chesapeake Bay TMDL Action Plan and an associated Microsoft Access database of stormwater BMPs. The USACE inspection team was already familiar with JBM-HH's BMPs and able to use the database to track and document the inspections, which made the process more efficient. USACE conducted inspections of the BMPs on base in 2018 and again in 2019 and submitted the findings and recommendations for maintenance to JBM-HH EMD via USACE's BMP database. The underground BMP inspection team also generated a written report describing the findings for each underground BMP, including photographs and recommendations for maintenance, where applicable. EMD used the findings and recommendations to submit necessary work requests to the DPW.

While JBM-HH has been conducting maintenance activities in-house, the available funding and staff can be unpredictable. To mitigate potential compliance issues that could be caused by this, EMD is exploring alternative options to ensure regular maintenance can be completed on a set schedule and issues can be addressed in a timely manner. For minor landscaping-related maintenance activities, such as watering Filterra units during dry periods, these tasks will likely be added to the scope of work of the installation's landscaping contractor. For more involved maintenance of structural BMPs, such as replacing biofilter media, repairing cracks in underground vaults, and cleaning debris from permeable pavement, EMD is exploring the possibility of partnering with Arlington County on their existing BMP maintenance contracts. This option would not only ensure qualified contractors will be performing maintenance activities on a set schedule, but would also save costs involved with identifying the proper contractors and setting up new contracts. Separately, maintenance of proprietary units such as Filterra and Stormfilter devices may require additional contracts with certified maintenance contractors for each.

With the successful achievement of the first permit cycle goals and establishment of an inspection program, JBM-HH representatives are focused on the ongoing efforts to improve the BMP maintenance program and the challenge of developing BMPs to meet the next permit cycle pollutant reduction goals.



A bioretention area replaced a portion of a former asphalt-paved tennis court area, located in the center of the largest parking lot on the Installation.

PHOTO BY JENNY TOLBERT, JBM-HH



The two-tiered bioswale uphill from an outfall, collects stormwater from paved parking lots and roadways.

PHOTO BY JENNY TOLBERT, JBM-HH



Chesapeake Bay Action Team Updates

By Hee Jea Hall, Brown and Caldwell

Members of the CBAT convened for their quarterly meeting on October 24, 2019 to review ongoing Chesapeake Bay-related service and installation projects and activities and the potential development of “Installation Chesapeake Bay Progress and Status Reports.” The City of Norfolk also provided an overview of its comprehensive street sweeping program.

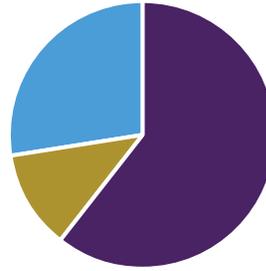
Chesapeake Bay Service Leads and Installation Updates

- MCB Quantico’s Chesapeake Bay TMDL Action Plan for their MS4 stormwater permit compliance currently relies on nutrient sharing with its Mainside wastewater treatment plant, where its total nitrogen and phosphorus discharge levels are below its National Pollutant Discharge Elimination System permit limits. MCB Quantico plans to explore other opportunities, including the implementation of structural BMPs, as a contingency.
- Naval District Washington is developing baseline assessments in Maryland for new MS4 requirements. They are also updating restoration plans.

Installation Chesapeake Bay Progress and Status Reports: Considering the What, When, Why, and How

Ms. Stephanie MacDurmon presented the idea of an Installation Chesapeake Bay Progress and Status Reports for the CBAT’s consideration and discussion. The reports’ goal would be to highlight individual installations’ progress toward Executive Order 13508, the Chesapeake Bay TMDL, and the Chesapeake Bay Watershed Agreement Goals and Outcomes. The idea has been raised on multiple occasions, most recently at the CBCC in August.

The reports could draw on existing data sources (the datacalls and BMP Crediting Reports) or new mechanisms (such as individual installation CAST scenarios), which may require additional information from installations, to represent each installation’s status. CBAT members were asked to provide feedback to the proposal in a real-time survey. The survey first asked if members would be interested in a status report for their installation. Twenty members responded they would be interested, while four members said no, and nine remained unsure. The survey then asked what CBAT members would be interested in as part of an Installation Status Report. In general, members wanted to see their installations’ current status and progress toward compliance requirements, any instances of non-compliance (including in the future), and information to justify future implementation funding and support. Members also wanted information that could help them meet compliance



WOULD YOU BE INTERESTED IN A STATUS REPORT FOR YOUR INSTALLATION?

- 20 Would be interested
- 4 Would not be interested
- 9 Unsure

requirements and the Chesapeake Bay TMDL with planned and proposed actions and associated cost estimates. Several attendees stated that the status reports should include successes and results but also communicate funding shortfalls and the risks of not meeting the reduction goals. Some members raised concerns about the need for additional data requests and security limitations at classified locations.

The reports could be a two-page printed document or a digital dashboard. Based on the fiscal year schedule, the first status reports could be developed in the spring of 2021. The DoD CBP will take CBAT feedback and consider whether it will pursue the status report development, a pilot project with interested installations, or another approach.

Norfolk’s Street Sweeping Program

Mr. John White provided an overview of the City of Norfolk’s street sweeping program. Currently, all streets with curb and gutter are swept monthly. The City sweeps over 40,000 curb miles annually and has invested heavily in a large inventory of street sweeping equipment and signage. Because of the Partnership’s updated protocol to credit street sweeping in 2016, the City is evaluating the effectiveness of street sweeping for nutrient removal. Visit www.norfolk.gov/2658/Street-Sweeping for additional information about their street sweeping program. Installations considering street sweeping as a BMP are encouraged to reach out to nearby communities to discuss partnering opportunities.

DoD Chesapeake Bay Program Updates

- The DoD CBP will check with Virginia DEQ about the status of historical data migration for MS4 installations
- Thank you to CBAT members for their participation in the 2019 datacalls. We had 100% participation from installations this year.
- Thank you to those who also attended the CBCC.

The next CBAT meeting is scheduled for January 30.



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

✓ Check it Out

FY2019 Annual Progress Report Photo Request. Your project or event photos could be included in the FY2019 annual progress report! Please send any photos to both Mr. Kevin Du Bois (kevin.dubois@navy.mil) and Ms. Hee Jea Hall (hhall@brwnald.com) by January 31 to enter.

2019 Chesapeake Bay Commanders' Conference. Presentations from the conference are now available on DENIX. View and download at: authoring.denix.osd.mil/chesapeake/2019_dod_chesapeake_bay_commanders-conference/

Recommendations for Crediting Outfall and Gully Stabilization Projects in the Chesapeake Bay Watershed. In October, the Partnership approved a memorandum outlining a crediting protocol for outfall and gully stabilization projects. Read more at: [chesapeakestormwater.net/wp-content/uploads/dlm_uploads/2019/10/FINAL_APPROVED-OUTFALL RESTORATION MEMO 101519.pdf](http://chesapeakestormwater.net/wp-content/uploads/dlm_uploads/2019/10/FINAL_APPROVED-OUTFALL_RESTORATION_MEMO_101519.pdf)

The National Military Fish and Wildlife Association Annual Training Workshop. March 8-13, 2020, in conjunction with the 85th North American Wildlife and Natural Resources Conference in Omaha, NE.

Presentations and materials from the **14th Annual Chesapeake Watershed Forum** are available at: drive.google.com/drive/folders/1QiKao_a9Sp5qPsMmXWFVO2NhD3BHIYSu. More information about the forum is available from the Alliance for the Chesapeake Bay website at: www.allianceforthebay.org/our-work/key-program-focuses/networking-education/chesapeake-watershed-forum/

CBAT Quarterly Conference Call and Meeting. January 30, 2020, 10:00 am to 12:00 pm. EDT.

Attend: Norfolk Naval Station, Building N 26 Room 3303

Call in: 1. 301 909 7350 / Passcode: 68233076

Web connect: conference.apps.mil/webconf/quarterlyCBAT

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