DoD Chesapeake Bay Program Updates

By: Sarah Diebel

As we enter a new calendar year, 2014 brings us a significant change to the DoD Regional Environmental Coordination (REC) office. Mr. Sean Heaney is currently detailed in the DoD REC Director position and is getting up to speed on all things REC and Chesapeake Bay! Sean has worked for the Navy in environmental compliance management for the past 22 years in Norfolk, Virginia. Currently wearing both compliance and REC hats, Sean brings a new perspective on how we can begin to operate more effectively and efficiently based on what needs to be done using collaborative approaches. For example, we are examining our annual datacall to streamline reporting requirements and revamping our outreach methods to facilitate more timely and accurate communication of Program successes to our partners and audiences. Please extend a warm welcome to Sean and contact him with any thoughts or ideas on the REC or Chesapeake Bay Programs. Updates are provided below on what we’ve been working on since the last issue for your reading pleasure. As always, please reach out to any of us if you have an article, photo, or issue!

• **Executive Order (EO) 13508 Reporting Updates**
  On 17 December 2013, an updated FY13 Progress Report and a draft FY14 Action Plan was sent to the Office of Management and Budget (OMB) and Council on Environmental Quality (CEQ) for review. DoD submitted narrative information for the report in December. Thanks to the Service leads for providing the much needed data! Information collected from each of the installations through the annual datacall was consolidated and reported out in the combined FY13 Progress Report and FY14 Action Plan. We also submitted Energy Independence and Security Act (EISA) Section 438 information, which included the number of projects where EISA was considered per Bay jurisdiction.

• **Total Maximum Daily Load (TMDL) Progress Information**
  On 15 January 2014, jurisdictions were expected to submit the final status on whether they achieved their 2012-2013 Chesapeake Bay TMDL programmatic milestones. In December, all jurisdictions submitted data on the best management practices implemented during the past milestone period. By 15 January 2014, jurisdictions were expected to submit draft programmatic and numeric pollution reduction commitments for the next milestone period – 2014 through 2015. EPA expects final programmatic and numeric commitments for the 2014-2015 milestone period by 15 May 2014. By late spring, EPA will assess whether jurisdictions achieved their numeric and programmatic 2012-2013 milestones and whether the 2015 commitments are on pace to have practices in place by 2017 that would reduce 60% of the pollution necessary to meet water quality standards compared to 2009 levels.

The DoD is currently working on a response to the Chesapeake Bay Program Office (CBPO) discussing our reasons for not being able to submit Best Management Practice (BMP) implementation commitments.

The second part of the request for federal agency participation for the TMDL included providing BMPs implemented during the July 2012 through June 2013 timeframe. Based on discussions with each of the Service leads in October, installations are to directly submit their BMP inventories directly to the States and inform the DoD CBP of their submittal. A spreadsheet was provided, which included all of the necessary BMP information needed for proper credit in the model.

• **2014 and 2015 DoD Milestones**
  All of the Federal 2014 and 2015 EO 13508 Two-year milestones were posted on 7 January 2013 on the EO 13508 website (link provided below). DoD programmatic milestones are also included. [http://executiveorder.chesapeakebay.net/file.axd?file=2014%2f1%2f14_15+WQ+milestones_010714+FINAL+Version.pdf](http://executiveorder.chesapeakebay.net/file.axd?file=2014%2f1%2f14_15+WQ+milestones_010714+FINAL+Version.pdf)

• **Chesapeake Bay Agreement Updates**
  On Thursday, 12 December 2013, the Chesapeake Executive Council (EC) held a public presentation and press event in D.C. The EC members highlighted the past 30 years of restoration and discussed concerns raised by jurisdictions and federal agencies on the agreement. The Principals’ Staff Committee convened on 16 January 2014 to discuss the

In this Issue:

- DoD Chesapeake Bay Program Updates.................1
- Bald Eagles Thrive at Quantico .........................2
- Best Urban BMP in the Bay Award......................4
- NSA HR Celebrates National Public Lands Day.......5
- Sea Turtle Tracking...........................................6
- Best Practices for Green Infrastructure..............6
- Check it Out....................................................8

(Continued on Page 2)
• Chesapeake Bay Commission Meeting
On 2 January 2014, the Chesapeake Bay Commission held its quarterly meeting in Annapolis. Agenda items included: Identifying Commission Priorities, a discussion on the 2014 Chesapeake Bay Watershed Agreement, a briefing on Implications of Climate Change for Chesapeake Bay Restoration, and the election of 2014 officers.

• Streamlining of EPA Datacalls:
The DoD Chesapeake Bay Program office serves to coordinate reporting of information on all activities taking place at the installation and regional level that support the Bay’s restoration. This information is collected on an annual basis by populating an access database for each installation within the watershed. We are currently undergoing a comprehensive review in order to align reporting and outreach requirements with data that are being collected, and maximize both end-user and manager functional efficiencies. Once the reporting review is complete, we will share with the Services our plan of engagement for collecting information that supports the reporting requirements.

• More than $100M available to protect communities from climate change
The U.S. Department of the Interior (DOI) announced more than $100 million in new grant funds on the one-year anniversary of the “superstorm” that affected the entire East Coast, raising river flow in the Chesapeake Bay watershed and causing significant damage to New Jersey and New York. Proposals were due Friday, January 31, 2014. For your information, the National Fish and Wildlife Foundation (NFWF) offers many grants through different programs and DoD installations are able to participate when a partner organization collaborates. Learn more at: http://www.nfwf.org/hurricanesandy/Pages/home.aspx

• FY2012 Strategic Action Plan Update
Service review of the proposed performance measures for the FY2012 Strategic Action Plan resulted in concern for identifying specific numbers of projects completed due to fiscal uncertainties. Based on the comments, numeric performance measures will be deleted and the use of summaries on the number and types of projects conducted per the annual data call will be provided.

• Chesapeake Bay Action Team Meeting
The CBAT meeting was held on 13 January 2014 to update Service leads and installation staff on the status of actions being undertaken by the DoD to support the EPA and the DoD’s Chesapeake Bay Program. The next meeting will be held on 9 April 2014.

• FY2013 Chesapeake Bay Program Annual Data Call
Databases for the installations were provided to the DoD’s Chesapeake Bay Program. The next meeting will be held on 23 April 2014.

• Maryland Environmental Partnership Meeting
The quarterly Maryland Partnership meeting was held on 23 January 2014. The EPA representative expressed his gratitude for the progress data on best management practices submitted by federal agencies for inclusion in the FY2013 Progress Report. MDE staff provided status updates on House Bill 97, the Phase II MS4 Permit, stormwater remediation legislation and the EPA Rule for Generators. MDE staff also provided information on the submission requirements for obtaining credit for stormwater best management practices and their expectations for federal facilities to submit their FY2014 and 2015 Chesapeake Bay Program milestones. Faculty from the US Naval Academy provided a presentation on the oyster restoration work they are heading up at the Academy. The next meeting will be held on 23 April 2014.

Bald Eagles Thrive at Quantico
By: Mike DiCico
Quantico Sentry (SoMdNews) on July 17, 2013
First published in Potomac Local News on December 2, 2013
QUANTICO, Va. – The bald eagle was chosen as the United States’ emblem, a symbol of strength, majesty and freedom, in 1787, but its relationship with the American people was uneasy for almost another 200 years, until its population dwindled to the point that a bald eagle sighting became a rare treat.

Now that bald eagle numbers are back on the rise, and that relationship is again being put to the test, Marine Corps Base Quantico finds itself in a region that ties together three different populations of the birds from as far as Canada and Florida.
“The Potomac [River] is a critical area for eagle conservation,” said Jeff Cooper, nongame bird coordinator for the Virginia Department of Game and Inland Fisheries, noting that the raptors are drawn to brackish tidal waters by an abundance of prey, from the shad that spawn there to the blue catfish that were introduced to Virginia’s tidal waters in the 1970s, to the waterfowl that winter there.

Though the regal-looking bird is now generally regarded with a sort of awe, founding father Benjamin Franklin famously wrote that the bald eagle is “a bird of bad moral character” and a ranked coward.

Farmers, too, have had their differences with this symbol of U.S. sovereignty and freedom.

“Raptors in general, in the old days, were just considered vermin, and they were shot by the thousands,” Cooper said, noting that this continued into the 1960s and ’70s. Add to this the effects of DDT, which was banned for use as a pesticide in 1972 due to its damaging effect on bird eggshells, and by the 1970s, there were only about 30 breeding pairs of bald eagles in all of Virginia.

After being placed under the protection of the precursor to the Endangered Species Act in 1967, the bald eagle was delisted in 2007, and Cooper said Virginia is now home to about 730 breeding pairs.

Many more of the birds, however, make certain areas of the commonwealth their seasonal home, and Quantico is at the center of one of those bald eagle “concentration areas.”

As waters around Florida warm up in the summer, many of the fish head north, and the eagles follow, Cooper said. “So, for eons, there’s been a migration northward to the [Chesapeake] Bay area, where there’s a much more accessible food source and a more abundant fishery.”

These summertime visitors begin to arrive around early May and peak in mid-June and July, Cooper said. They return home in the fall, and around December, bald eagles from New England and Canada begin to arrive, peaking in late January and early February. Their numbers vary depending how harsh the winter is.

Like many species, eagles found in northern climes are noticeably larger than their subtropical counterparts, and the wintertime migrants tend to feed on ducks and geese, as well as fish and whatever else they can find.

During both summer and winter, the visiting birds flock to the tidal waters of the Potomac, Rappahannock and James rivers, as well as locations across the bay. There, they gather in six different “concentration areas.” One of these runs from Naval Surface Warfare Center Dahlgren, Va., north to Mason Neck National Wildlife Refuge, with Quantico right at its center.

Cooper said the migrant birds are enough to cause a several-fold increase in the local population, with more than 750 bald eagles between Dahlgren and Fort Belvoir, on both sides of the Potomac, during the peak months.

However, Quantico also has its own resident bald eagle population. This year, there are three active nests documented on the base, said Tim Stamps, head of the base Natural Resources Section. In recent years, there have been four, but the pair that occupied a nest near Lunga Reservoir appears to have moved elsewhere this year. Stamps said it’s possible they’re still on the base.

“Sometimes eagles will move from one tree to another, and then they come back the next year,” he said.

The base got its first documented bald eagle nest in 1984, and a second nest was found in 1996. In 2000, the third pair built the nest near Lunga that now appears to be empty.

Bald eagles live 30 to 35 years in the wild, so they can occupy a nest for an extended period.

Their construction is not difficult to spot. “An eagle nest is just a huge mass of sticks in the fork of a tree,” Stamps said, adding that they can weigh up to 1,000 pounds.

One of the three active nests is on the southern shore of Chopawamsic Creek, in Officer Candidates School Training Area 3, and another is on Quantico Creek near the Geiger Ridge neighborhood. The third is not far from the Single Marine Program House on Neville Road.

In addition to a nearby food source, Stamps said, bald eagles like to nest in tall trees in continuous, mature forest. All this makes the main side of the base, as well as neighboring areas, inviting locations. “I’d say the food supply and habitat are really of high quality,” he said.

The base makes some accommodations to nesting bald eagles, although Stamps said nests generally have not been in high-use areas. During the nesting season, which officially runs from Dec. 16 to June 1, activities are restricted within 200 meters of an occupied bald eagle nest. For Quantico, this means hunting is not allowed during that period at Blind 1, which is near the nest on the shore of Chopawamsic Creek.

How a nest is treated depends in part on who got there first, Stamps said. If eagles build a nest near an existing building, human activities continue more or less as normal. But if there’s a nest where the base wants to build something, construction must halt during the nesting season.

The Marine Corps Air Facility has nest maps so pilots can avoid flying within 1,000 feet of an active nest, and the facility also has a bird airstrike management plan, but Stamps said there still have been a few collisions with bald eagles in recent years.

People and bald eagles are likely to begin colliding in other ways as the big raptors’ numbers continue to grow.

Since the mid-1990s, Cooper said, the area’s resident bald eagle population has been doubling every seven years, a trend that continues today. Between Dahlgren and Washington, D.C., there is a nest every mile or so along Route 1, with more and more nests appearing on the edges of neighborhoods and runways, he said.
The Chesapeake Stormwater Network (CSN) is very proud to announce the launch of our first ever Best Urban BMP in the Bay Award contest!! The BUBBAs, as it is affectionately being called, aims to recognize the best urban BMPs that have been designed and installed in the Chesapeake Bay watershed within the past 5 years.

- $5,000 cash award to grand prize winner
- 6 different award categories
- Deadline for submissions: February 28, 2014
- Online submission process: [http://chesapeakestormwater.net/the-bubbas/](http://chesapeakestormwater.net/the-bubbas/)

**Competition Objectives**

Many other organizations have offered LID design competitions to promote the implementation and adoption of LID practices in areas where they have not previously been employed. Here, in the Chesapeake Bay watershed, LID practices are more commonly employed as a result of stringent stormwater management regulations and the recently implemented Bay TMDL. One of the things we have seen here at CSN is that local implementers tend to lead the way in trying new and innovative approaches to dealing with difficult stormwater problems. For example, a retrofit constructed in an ultra-urban environment faces many more challenges than one in a suburban environment and there are many localities that have come up with effective ways for facing those challenges. The goal of the BUBBAs is threefold: 1) Recognize innovators in the field who are using new and innovative techniques for facing the challenges of stormwater management; 2) Provide an avenue for disseminating these techniques to other communities who could benefit from the lessons learned and innovative approaches; 3) Engage CSN’s nearly 4,000 member network of stormwater professionals throughout the Bay watershed to promote interactivity among the members.

No two urban BMPS are alike! Each one is faced with a unique set of challenges and represents solutions for specific stormwater management goals. In order to recognize those unique solutions and promote their application throughout the Chesapeake Bay Watershed and ensure broad participation entries will be accepted in the following six categories.

1. Homeowner BMPs
2. Innovative BMPs
3. Best Combination of BMPs in a Series
4. Ultra-Urban BMPs
5. Best Habitat Creation in a BMP
6. Best Stream Restoration

**Winning the BUBBAs - $5,000 Grand Prize!!**

Projects wills be reviewed by a handpicked jury of experts in Bay stormwater. Our jurors represent diverse perspectives in the field of stormwater management and can evaluate the project submissions according to the many objectives of a stormwater BMP.

- The top three finalists in each award category will receive certificates of recognition for placing as finalists in the award category and be featured on the CSN website.
- Category winners will receive a free registration to the 2014 Bay-wide Partners Stormwater Retreat where they will be recognized at a swanky BUBBAs awards ceremony and will have the opportunity to network with nearly 100 federal, state, local and NGO leaders from across the Chesapeake Bay watershed. Learn more about the annual Bay-wide Partner’s Stormwater Retreat here.
- GRAND PRIZE = $5,000!! The grand prize winner will be chosen by CSN’s network of more than 4,000 stormwater professionals in an online voting forum. The “People’s Choice Award” winner will receive a $5,000 cash prize, free registration to the 2014 Bay-wide Stormwater Partner’s Retreat and the respect and awe of the Chesapeake Bay stormwater community. Can’t beat that!

**For more information, contact:**

Cecilia Lane
Stormwater Coordinator
Chesapeake Stormwater Network
[watershedgal@hotmail.com](mailto:watershedgal@hotmail.com)
410-750-7635
Sailors, community members, and base personnel participated in Naval Support Activity, Hampton Roads’ (NSA HR) annual National Public Lands Day (NPLD) event at Lafayette River Annex (LRA) on Nov. 15. NPLD is the nation’s largest, single-day volunteer effort for public lands. This year the 20th Anniversary was held on Sept. 28.

Any project that benefits a public land can be registered as an NPLD project. The majority of projects are focused on habitat restoration, such as tree plantings, trash or invasive plant removal, bird or bat house construction, trail maintenance, fence removal and gardening. “NPLD offers us the opportunity to come out and enhance public lands for recreational use and education,” said Linda Hicks, Environmental Program Director for NSA HR.

Volunteers spent most of the day cleaning up the designated LRA area and planting wetlands and riparian buffers, which is a vegetated area that helps shade and partially protect a stream from the impact of adjacent land uses. LRA was picked as the location for NPLD due to the fact that riparian buffers and living shoreline are their most critical wetlands.

“This site is such a jewel and treasure to the community,” said Pam Boatwright, River Star Business Program Manager with the Elizabeth River Project. “This event gives people the opportunity to see the results and they are more inclined to conserve and understand the environment and ecosystem a little more.”

The Elizabeth River Project is the non-profit organization leading community efforts to restore the environmental health of the Harbor River while affirming value to the port economy. The Project has been trying to recruit LRA as a River Star Business for a few years now since the annex has been creating habitat and been consistent with reducing pollution.

The U.S. Navy is involved with the Elizabeth River Project because it is an important part of meeting the Chesapeake Bay initiative and the Department of Defense is a lead partner in achieving the reduction goals of the Bay. NPLD began in 1994 with three sites and 700 volunteers. Based on its success, it soon became a yearly tradition being held on the last Saturday in September. This is the first year the event has been held at LRA.

“Environmental sustainability and stewardship are important because creating these riparian buffers and shorelines benefits the enhancement of wildlife species and habitat, prevents flooding and erosion, while enhancing quality of life and encouraging environmental stewardship and community partnerships,” said Hicks.

NPLD educates Americans about the environment and natural resources, gives the potential to build partnerships between the public sector and the local community, and improves public lands for outdoor recreation.
Sea Turtle Tracking in the Lower Chesapeake Bay

By: Andrew DiMatteo

The Lower Chesapeake Bay and nearshore areas surrounding the mouth of the Bay represent one of the busiest hubs of military activity on the east coast. The area hosts numerous pierside facilities, bases, vessels, shipyards, and in-water training ranges. Sea turtles in the area may be impacted by ship traffic, dredging, pile driving, and other activities that affect the underwater landscape and soundscape.

The Navy has implemented a program to track juvenile loggerhead, Kemp’s Ridley, and green sea turtles, all listed as threatened or endangered under the Endangered Species Act, using a combination of satellite and acoustic transmitters. One field season has been completed and second is planned this year. Turtles tagged include those wild caught by Virginia Aquarium, healthy turtles captured in pound nets, and rehabilitated turtles that stranded in the area.

Increased knowledge of the movements, habitat use, and seasonality of the marine turtles found in the Chesapeake Bay will allow the Navy to limit interactions with these protected species as well as design better mitigation measures where interactions are unavoidable.

O&M and Green: Best Practices for Green Infrastructure Operations and Maintenance

By: Michael Baker Jr., Inc.

The Chesapeake Bay TMDL takes priority for most of us. In fact, improving water quality may be the number one way to reduce nutrients, sediment, and other pollutants to meet the extensive goals and outcomes set by Executive Order (EO) 13508. The number of stormwater retrofits or best management practices (BMPs) needed to meet nutrient and sediment reductions is a concern to all installations within the watershed. This concern is compounded by the need to ensure our investments remain as effective as the day they were installed. Additionally, the operation and maintenance (O&M) of “green infrastructure” is a priority of the Chesapeake Bay Program Partnership – an expert panel is currently developing crediting and verification protocols, which will be used to measure progress towards the reduction goals set forth in the Chesapeake Bay TMDL.

During an EPA hosted webinar on January 7, 2014, titled “O&M and Green: Best Practices for Green Infrastructure Operations and Maintenance,” Karen Sands from the Milwaukee Metropolitan Sewage District and Dr. Bill Hunt from the North Carolina State University’s Department of Biological and Agricultural Engineering presented ways to maximize nutrient, sediment, and other pollutant reductions from existing stormwater BMPs utilizing proper O&M.

Milwaukee Metropolitan Sewage District is the first municipality with green infrastructure implementation requirements in their municipal separate storm sewer system (MS4) permit and are based on capacity or volume retained. Karen Sand presented their Regional Green Infrastructure Plan, which includes specific goals and developed strategies for complying with their permit.

In Dr. Hunt’s presentation, he stated that 95% of green infrastructure devices failed his initial inspections as most require maintenance including unclogging, removal of trash/rubbish, and elimination of unwanted trees/vegetation. Dr. Hunt developed an approach for facilities that need to conduct routine maintenance of BMPs. This approach uses objectives involving safety, aesthetics and function (SAF method). Prioritizing maintenance of BMPs using this methodology ensures SAFETY above all.

(Continued on Page 7)
Sedimentation is a key concern for bioretention areas and other types of BMPs. With the right or wrong conditions, these BMPs could require extensive maintenance in the forms of sediment excavation, rebuilding the retention bed due to an eroding outparcel, or a complete overhaul if not inspected and maintained. Extensive maintenance is cost-prohibitive and there are cost effective approaches to performing routine preventative maintenance of green infrastructure.

The financial cost of maintenance is considered marginal since much of it is landscape related. Thus, marginal bioretention maintenance costs versus standard landscaping is currently estimated at a 15% difference.

Ever heard of Smutzdecke? That's a term to describe the mud and silt that can clog permeable pavement. Types of permeable pavement maintenance include street sweeping or blowing the catchment free of debris. There are many types of sweepers available, such as a mechanical sweeper, regenerative air sweeper, or vacuum sweeper. A key note is that some gravel may be lost due to sweeping, therefore, it is important to fill the gaps with replacement gravel. Research studies have proved that pressuring washing with a power blowing technique is the better alternative due to improved pervious concrete sidewalk infiltration (Dougherty et al.[2011] J. Irrig & Drain Eng [ASCE]).

In some cases, only certain areas would be susceptible to preventative maintenance such as landscapes/hardscapes with overhanging trees or patch of “dirty” vehicular traffic. In areas where landscapes are present, other vegetation may become an issue, such as weeds and moss. Grass growth is a sign of sediment accumulation. Dr. Hunt suggested not to pull large weeds since fill gravel would also be extracted from the pull. It is better to control the weeds when they are small since dead weed biomass can clog the pavement. Where vegetation is present, it was also suggested that the use of a one-time slow release fertilizer is an acceptable practice, but after that, let the nitrogen and phosphorus from the runoff do its job within the green infrastructure device.

In summary, Dr. Hunt’s take home message was that most green infrastructure needs are similar to typical landscaping costs, so along with the safety, aesthetics and function of the system, also consider the costs of the margin.

For more information on the EPA’s Green Infrastructure webcast series or a copy of the presentations from this past webinar, visit: http://water.epa.gov/infrastructure/greeninfrastructure/OM-and-Green.cfm

The next webinar will be presented on March 4, 2014 and will discuss implementing Green Infrastructure under enforcement orders. Kyle Drefuss-Wells from the Northeast Ohio Regional Sewer District and Andy Shively from the Kansas City Water Services Department are slated to present on this topic.
Check it Out:

The National Fish and Wildlife Foundation Chesapeake Bay Stewardship Fund is now accepting applications for Technical Assistance with a deadline of February 24th, 2014. The Technical Assistance Program is designed to provide contractual support for activities NFWF implementation grants typically don’t cover: design work, planning, and prioritization, among other similar objectives. All projects should have an ultimate goal of addressing at least one of the Chesapeake Bay Stewardship Fund Conservation Objectives (provided below). Technical assistance is delivered through approved technical assistance providers, who may apply for and deliver this assistance on behalf of eligible beneficiaries, including local governments and nonprofit organizations. The cap for all requests is $40,000. Please go to http://www.nfwf.org/chesapeake/Pages/Applying-for-TA.aspx for more information.

Readiness and Environmental Protection Integration (REPI) Program is hosting a webinar series on best practice tutorials and knowledge sharing on REPI partnerships that support military missions and accelerate the pace and rate of conservation. The 5 March 2014 topic is Beyond REPI Buffers: Holistic Planning starting at 1:00pm. To be connect to this webinar, visit Adobe Connect Link: https://bah16f18.adobeconnect.com/r8ucw14u81t4/

The Chesapeake Bay National Estuarine Research Reserve (CBNERR) in Virginia is offering a 3-day workshop on March 3-5, 2014, on the new “Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region” (Version 2.0). The cost is $250.00. The instructor is Dr. Douglas A. DeBerry, who is a Research Assistant Professor of Environmental Science and Policy at the College of William and Mary. Dr. DeBerry is a certified Professional Wetland Scientist (PWS) and Professional Wetland Delineator (PWD). Workshop participants will learn: 1 - Wetland delineation protocols based on the Regional Supplement methodology; 2 - Wetland indicators based on the three diagnostic criteria used to delineate wetlands: vegetation, soils, and hydrology; 3 - The current scientific understanding for physical, chemical, and biological phenomena that characterize wetlands in the Coastal Plain; 4 - Proper sampling techniques for wetland delineations; and much more! Contact Sandra Ehrle at syerdle@vims.edu or (804) 684-7144 for more information.