



DEPARTMENT OF DEFENSE CHESAPEAKE BAY PROGRAM

Commander Navy Region, Mid-Atlantic
DoD Regional Environmental Coordination Office
Sarah Diebel

Water Quality Goal Implementation Team Meeting
14-15 December 2015
Shepherdstown, WV



We Exist to Enable and Sustain Warfighter Readiness



Overview



- DoD Chesapeake Bay Program (CBP)
- DoD Watershed Footprint
- DoD Chesapeake Bay Investments Over Time
- Program Accomplishments and Focus Areas
- Future Initiatives
- Questions





DoD Chesapeake Bay Program



- 1984 DoD formal partner in CBP
- Dept. Navy Lead Agent
- Navy Region Mid-Atlantic (NRMA) manages program
- Each service has its own CBP lead
- Executive Order 13508 and 2014 Chesapeake Bay Agreement
- Annual reporting to EPA and Bay States
- Raise program awareness



2 0 1 4



DoD Chesapeake Bay Program



The VISION of the DoD Chesapeake Bay Program is to protect the Chesapeake Bay for military readiness, for our community and for future generations



The MISSION of the DoD Chesapeake Bay Program is to incorporate restoration, pollution prevention, and stewardship initiatives for the Chesapeake Bay into DoD's daily mission of providing the military forces that are needed to deter war and to protect the security of the United States; to partner with federal, state and local governments and organizations and citizen groups to maximize resources and strengthen Bay restoration and protection efforts; and to engage all levels of DoD military, civilians, and their families to be environmental stewards of the watershed where they live.



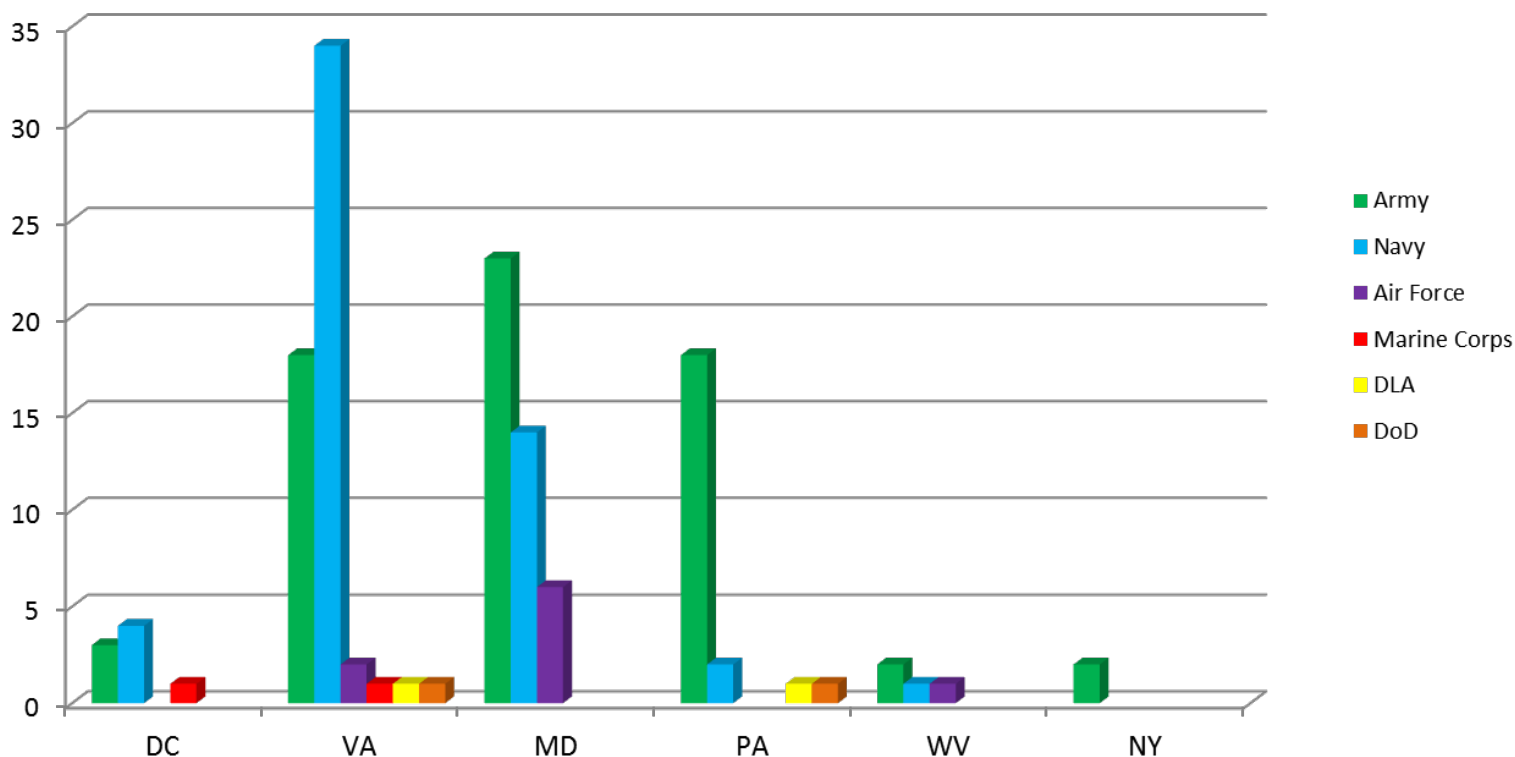


DoD Watershed Footprint



- DoD Services manage 136 sites/facilities & 368,927 acres
 - 1 % of watershed
 - 16 % of Federal footprint

DoD Facilities by Jurisdiction



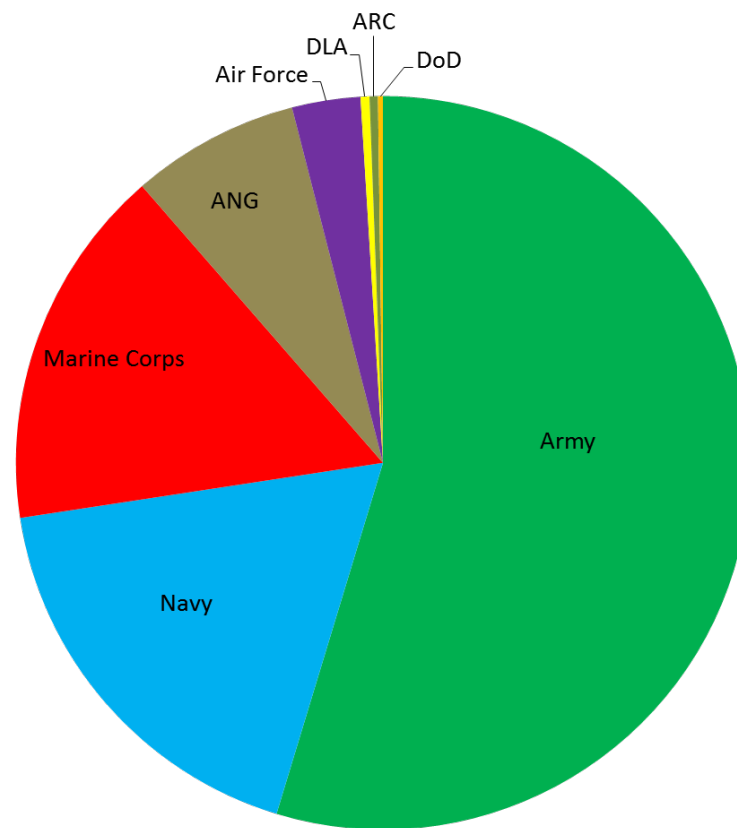
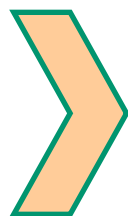


DoD Watershed Footprint

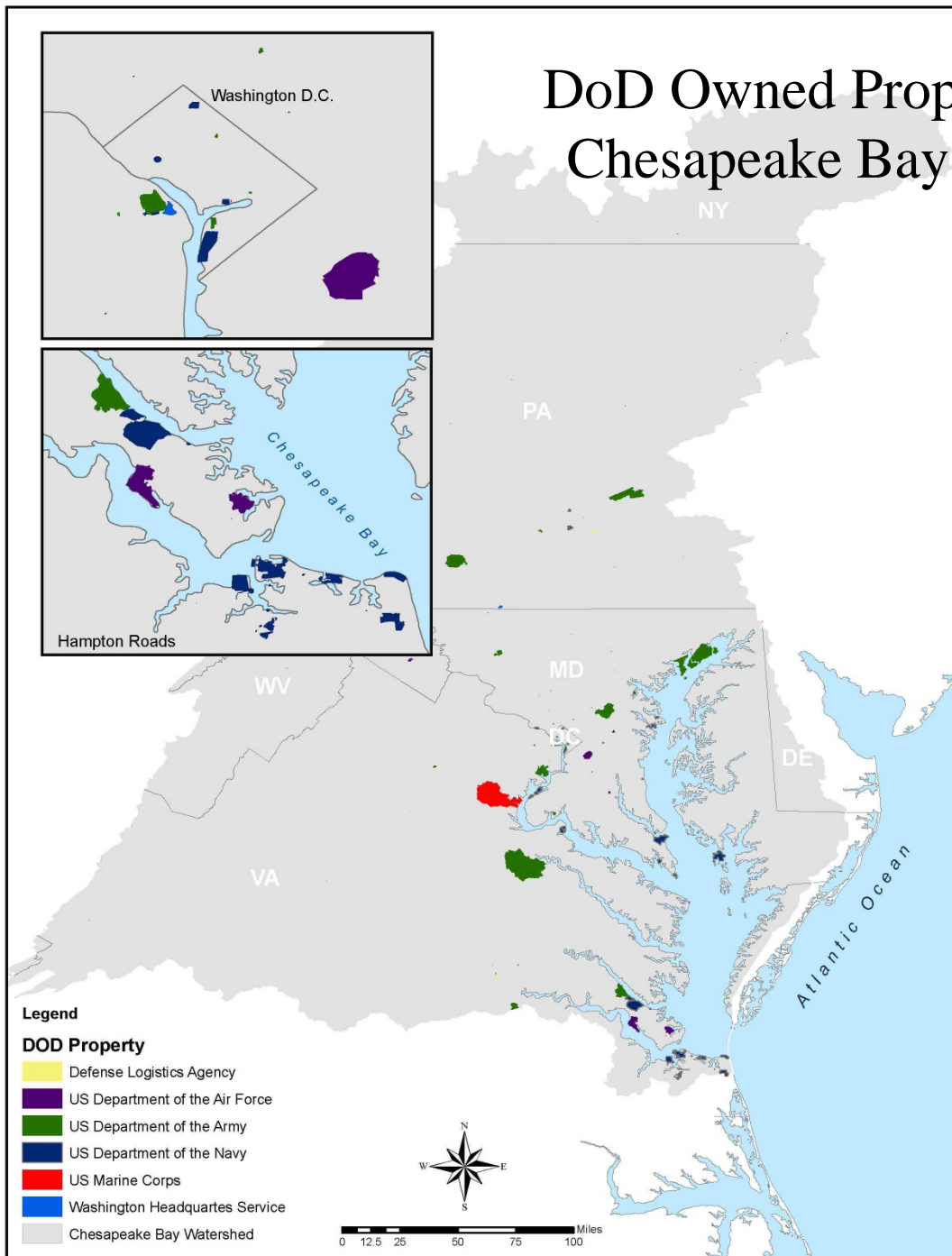


- DoD Services manage 136 sites/facilities & 368,927 acres
 - 1 % of watershed
 - 16 % of Federal footprint

DoD Acreage Distribution by Service	
Army	201,747
Navy	66,085
Marine Corps	59,064
Army National Guard (ANG)	27,312
Air Force	11,111
Defense Logistics Agency (DLA)	1,459
Army Reserve Centers (ARC)	1,340
DoD	809
Total	368,927



DoD Owned Properties in the Chesapeake Bay Watershed

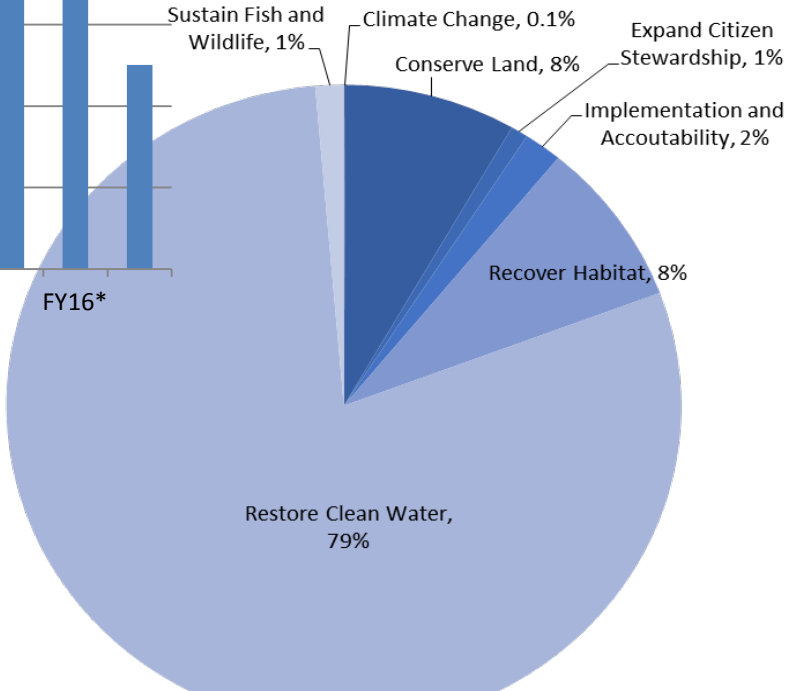
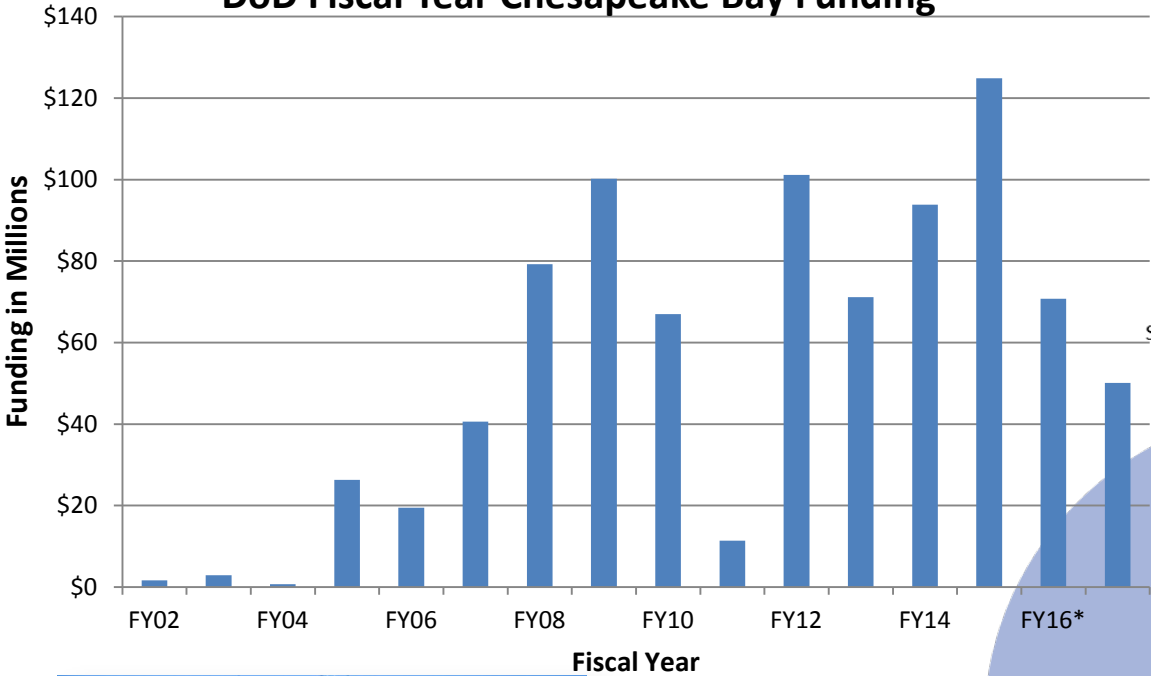




DoD Chesapeake Bay Investment Over Time



DoD Fiscal Year Chesapeake Bay Funding



FY11 - FY15 Funding Distribution by Goal



Focus Areas:

Chesapeake Bay Total Maximum Daily Load



- Programmatic and implementation based progress
 - Current stormwater regulatory requirements met and/or on-track
 - Completed CB TMDL pollution reduction plans in VA and PA
 - Federal Facilities Target Setting Protocol
 - Co-chair Federal Facilities Workgroup
 - Submitted land use data and historical best management practice data / continue to refine
 - Submitted 2016/17 two-year milestones
 - Refining baseline loads and load reduction scenarios
 - Drafting concept designs
 - Construct, report, verify future best management practice (BMP) implementation





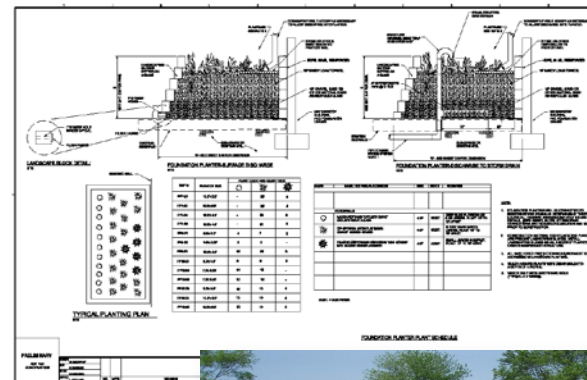
Focus Areas:

Chesapeake Bay Total Maximum Daily Load



- 2016 - 2017 Water Quality Milestones

DoD Chesapeake Bay Program 2016 - 2017 Two Year Water Quality Milestones: BMP Implementation		
Jurisdiction	Number of Projects	Funding Projections
Maryland	74	\$ 34,229,061
District of Columbia	8	\$ 230,000
Pennsylvania	8	\$ 644,000
Virginia	87	\$ 6,908,397
Total	177	\$ 42,011,458





Focus Areas:

CB TMDL & VA-Navy MS4 Permit



Current Conditions

- 7 Installations with aggregate reduction in pounds
 - 4 also have industrial stormwater permits
- Within MS4 boundary – 7,694 acres
 - 3,059 impervious acres
 - 4,635 pervious acres
- Outside MS4 boundary – 3,644 acres
 - 522 impervious
 - 2,942 pervious

Current / Anticipated Requirements

- Within MS4 boundary
 - L2 Reductions: 9% N / 16% P / 20% S
 - Load reduction: 4,448N / 800P / 440,679TSS
 - 5% by 2018, 40% by 2023, 100% by 2028
- Chesapeake Bay TMDL Action Plan
 - Plan required 1OCT15; plans due in 2018 & 2023
 - Public Notice prior to submittal to VA
- Outside MS4
 - Federal Facility Target
 - Target reduction: 1,594N / 222P / 95,471TSS

Progress to Date

- Preliminary calculations indicate 5% reduction met for permit with BMPs constructed in 2009-2014
- BMP Opportunity Assessments
 - Over 800 opportunities Identified
- 47 conceptual designs and 1391s
 - Only achieve 25% of total 35% reductions needed
- Outside MS4: participating on FFTAT

Plans to meet 2025

- Complete an additional 142 conceptual designs / 1391s to meet 2023 reductions
- Identifying demolition projects
- Continue reviewing priority list to reach 2028 reductions
- Costs for 2023 reductions: \$60-75M
- Costs for 2028 reductions: \$120-150M
- Costs Outside MS4 impervious: \$24M / pervious: \$TBD
- Non-regulated MS4 facilities to follow protocol to maximum extent practicable and report on practices eligible for credit



Focus Areas:

CB TMDL & VA-Navy Industrial SW Permit



Current Conditions

- 8 Properties with ISW only
- Industrial storm sewer (ISS) area – 1,985
 - 908 impervious
- Outside ISS area – 18,166
 - 781 impervious acres
 - 17,385 pervious acres

Current / Anticipated Requirements

- Within ISS area
 - Load reduction based on impervious area fraction
 - 2-yr monitoring for N / P / S to quantify loads
 - If loads > VA WIP estimate, need Action Plan
 - Implement reductions by 2024
- Outside ISS area
 - Federal Facility Target
 - 7,076N / 801P / 246,052TSS (estimated)

Progress to Date

- Within ISS:
 - BMP Opportunity Assessments complete with 317 opportunities identified
 - Started 2-year monitoring
- Outside of ISW: participating on FFTAT

Plans to meet 2025

- Prepare Action Plan in 2016 if permit criteria exceeded
- Meet MS4 requirement for dual permitted properties
- Implementation and costs within ISS: \$TBD
- Costs Outside ISS: \$TBD (\$36M for impervious)
- Non-regulated facilities outside ISS to follow protocol to the extent practicable and report on practices eligible for credit



Focus Areas:

CB TMDL & MD-Navy Industrial & MS4 Permits



Current Conditions

- 8 installations within NAVFAC Washington
 - 4 installations have existing MS4 Permits
 - 5 installations have Industrial SW Permits
 - 1 installation currently unregulated (Suitland)
- Total acreage: ~ 12,373
 - 2,228 impervious acres
 - 4,218 pervious acres
 - 5,296 forested acres
 - 518 agricultural acres

Current / Anticipated Requirements

- General ISW permit 20% impervious retrofit
 - This covers Solomon's Island
- Pending Phase II MS4 to cover all other facilities anticipated in 2015 20% retrofit of untreated impervious acres
 - Will cover all Navy installations within MD except Solomon's Island
- Individual permits set monitoring requirements for nutrients

Progress to Date

- The main driver will be retrofitting impervious area:
 - 406 acres of impervious retrofit required for NAVFAC Washington in Maryland
 - 746 acres of retrofit credit received (mainly at NSF Indian Head)
- 2 installations fully completed anticipated permit requirements
- Continued participation in the MD Partnership
- Worked with MDE to create state-approved Standard Templates for a variety of BMPs

Plans to meet 2025

- Draft MS4 permit is the only known requirement
 - MDE has not indicated future permitting requirements beyond first 5-year MS4 permit
- Additional 393 acres of retrofit credits
- Additional \$13.6M needed during permit cycle
- Restoration of Shoreline and Stream
- Design/Construction of structural BMPs as funding allows



Focus Areas:

CB TMDL & DC-Navy Stormwater Permits



Current Conditions

- Four main installations
- Total acreage: 1,385
 - 689 impervious acres / 678 pervious acres
 - 19 forested acres
- WNY complies with TMDLs in site-specific industrial permit issued by the EPA (fence line)
- JBAB is covered by general industrial permit

Current / Anticipated Requirements

- All new construction / significant redevelopment must meet stormwater management requirements (retention)
- DC administers a stormwater fee in order to comply with CB TMDL
- Individual Industrial Permit (WNY) has WLA, requires studies and reporting
- Voluntary reporting of historic BMPs and two-year milestone commitments

Progress to Date

- Stormwater fees reviewed, approved, and paid for NAVFAC Washington installations (~\$700K/yr)
- Navy provided DDOE lists of BMPs at each facility
- Continued participation in the MOU meetings
- With available funding, the Navy has installed several BMPs to remove nutrients and sediments
- Conducting green roof and water reuse studies as well as removing un-necessary impervious surfaces
- No exceedances of permitted TMDLs from industrial sites

Plans to meet 2025 Goal

- Continue to pay stormwater fee
- Continue to comply with permit requirements for TMDLs
- Continue to adhere to DC stormwater management requirements for all new construction and redevelopment
- Design/Construct BMPs as funding allows



Focus Areas:

CB TMDL & PA-Navy MS4 Permits



Current Conditions

- NSA Mechanicsburg – 800 acres
 - MS4 and ISW Permit
- Non-regulated facilities – unknown acres
 - NOSC Avoca

Current / Anticipated Requirement

- NSA Mechanicsburg MS4 permit requires Pollutant Reduction Plan to meet load reductions in PA WIP
 - 60% of total reductions by 2018
 - Submit Plans in 2019 and 2024 that demonstrate additional reductions to meet 100%
- NOSC facilities
 - Federal Facility Target

Progress to Date

- Completed Opportunity Assessments and 1391s for highest ranking sites: 80 opportunities identified
- Completed Pollutant Reduction Plan
- Awarded \$1.1M project in 2014 and BMP retrofit in demolition project
- Fund design of 3 projects totaling over \$4M in 2015
- NOSC Facilities: participate on FFTAT

Plans to meet 2025

- Complete an additional conceptual designs / 1391s to meet 2023 reductions
- Working with CI to identify demolition projects
- Continue reviewing priority list to reach 2028 reductions
- MS4 costs for 2023 / 2028 reductions: \$25M
- Non-regulated facilities costs: \$unknown
- Non-regulated facilities to follow protocol to maximum extent practicable and report on practices eligible for credit



Focus Areas

Chesapeake Bay (CB) Land Conservation



- Opportunities to conserve priority landscapes around DoD installations
 - Ten installations in CB with active Readiness and Environmental Protection Integration (REPI) Program partnerships
 - Cost-share agreements with conservation organizations and federal, state and local governments

Installation	State	Acres Protected through 2014	Total Funds through 2014
Aberdeen Proving Ground	MD	163	\$1,481,994
Fort A.P. Hill	VA	11,317	\$33,478,110
Fort Indiantown Gap	PA	93	\$84,495
MCB Quantico	VA	417	\$3,009,500
Atlantic Test Range	MD	2,576	\$8,244,964
NAS Oceana	VA	2,141	\$24,804,017
NAS Patuxent River	MD	194	\$886,470
Total		16,901	\$71,989,550





Challenges



- Funding
 - DoD budget to sustain mission readiness is constrained
 - Significant compliance costs for implementation and BMP operation and maintenance projected \$5K/yr/BMP
 - Virginia Navy-Hampton Roads installations projecting \$225M by 2028
 - Estimating \$5K / yr / BMP (700 new BMPs by 2028)
 - Difficult to implement projects without regulatory requirement
 - Anticipating final Maryland Phase II MS4
 - Three to five year lead time to request projects
- Chesapeake Bay TMDL
 - 2017 Mid-point Assessment and EPA evaluation of DoD progress
 - Phase III Watershed Implementation Plan development and coordination
 - Reporting coordination with Bay jurisdictions



Future Initiatives



- Enhance collaborative efforts within CBP Partnership
 - Outreach, partnering and stewardship activities
 - Support improvement of modeling tools
 - Identifying work plan actions / commitments and additional funding streams
- Developing strategy for implementing the Protocol for Setting Federal Targets, Reporting and Verifying BMPs
 - Considering scale of reporting and planning for the purposes of the Chesapeake Bay Program versus compliance requirements
- Bay TMDL Implementation
 - Comply with stormwater permits and support development of Phase III WIPs
 - Continue to refine land use and best management practices data
 - Report annual progress



Questions

