

Maryland Strategies for Reducing Nitrogen Loading from Septic Systems to the Chesapeake Bay



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Overview

- Bay Program History and Goals
- Maryland Strategies
- BRF Program
- Nitrogen Reduction from Septic Systems

Chesapeake Bay Watershed

- 1983 Bay Agreement Signed by MD, VA, PA, and DC.
- Amended in 1987, 1992 and 2000.
- DE, NY and WV also Participating as Headwater States
- Goal to Reduce Nutrients and Sediment Loads to the Bay by 40%

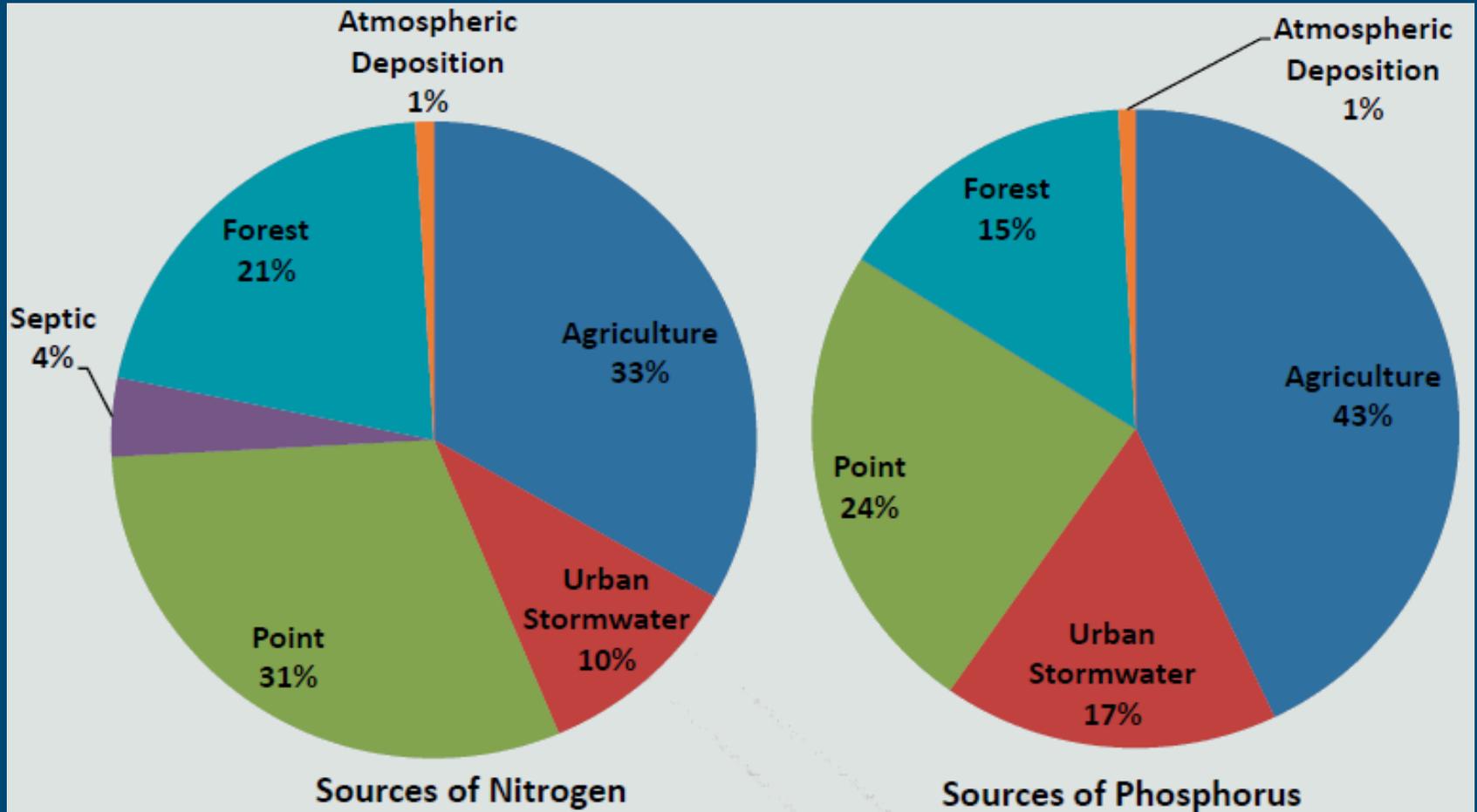


Chesapeake Bay TMDL

- 2010 EPA established the Bay TMDL
- WIPs were developed by Local Jurisdictions
- 2-Year Milestones with Goal to be Met in 2025



Major Nutrient Sources



Maryland Strategies

- Upgrading WWTP, and SSO Elimination
- Stormwater Retrofits and Storm Drain Cleaning
- Stream Restoration
- Tree Planting / Riparian Buffer Planting
- Street Sweeping
- Shoreline Erosion Control
- Upgrading Septic Systems

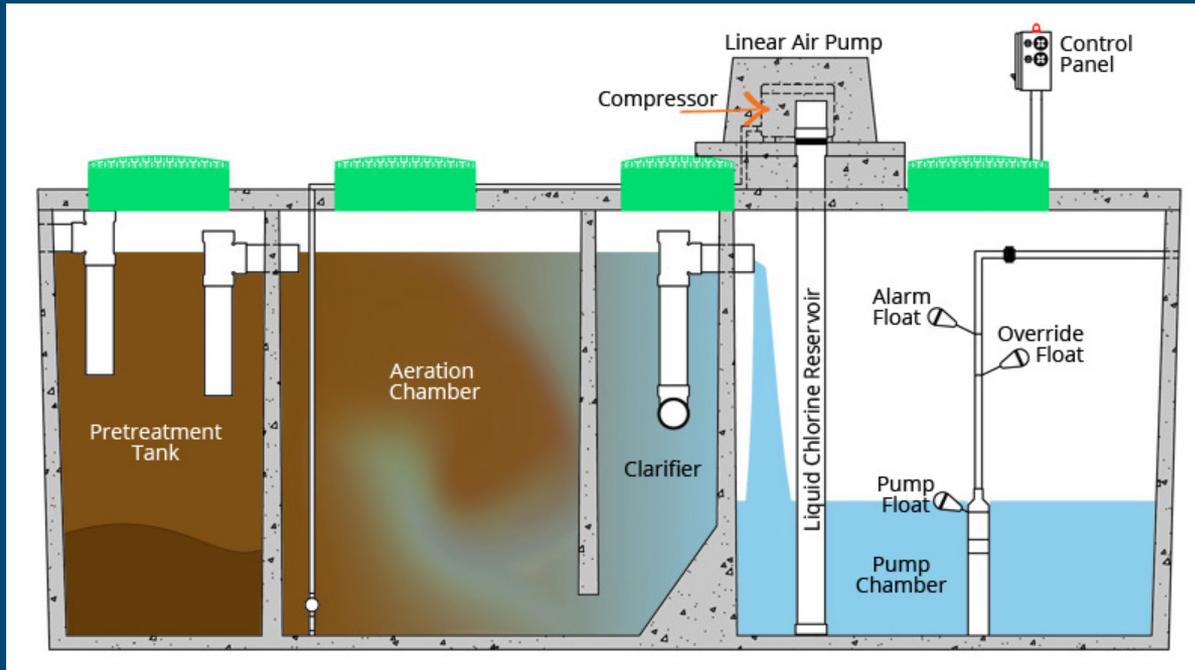
Bay Restoration Fund

- Established by Maryland in 2004.
- Established a Fee of \$30/yr for Each Household to Upgrade WWTP and Septic Systems to Reduce Nitrogen Loading.
- 40% of Money Collected from Septic System Users Goes to Cover Crops Program (Dept. of Ag).
- 60% of Money Collected from Septic System Users Goes to BAT Upgrades and Public Sewer Connections for WWTP meeting ENR.

Bay Restoration Fund



Bay Restoration Fund



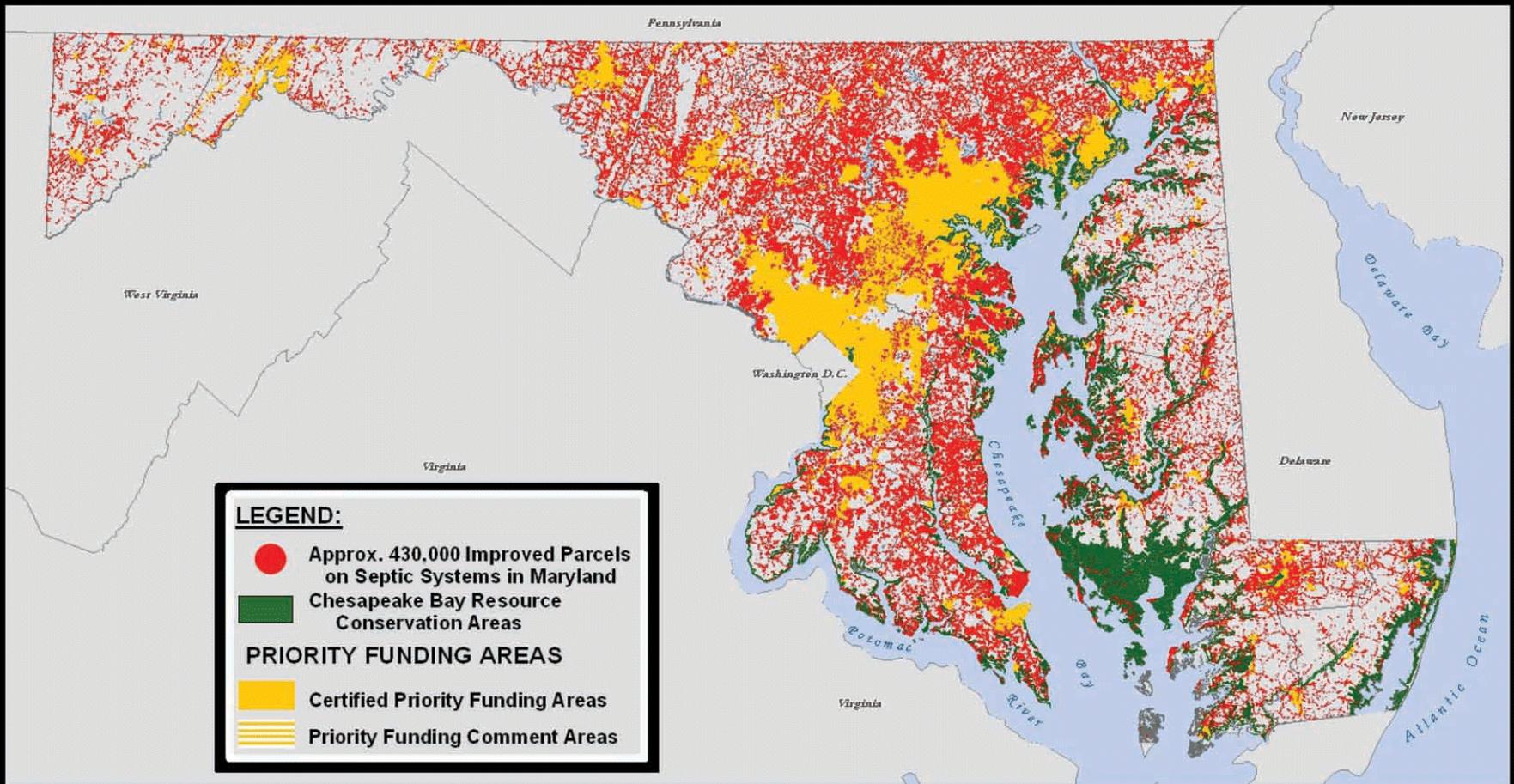
- 60% of Money from Septic System Users Designated for System Upgrades with BATs

BAT Prioritization

1. Failing Systems in the Critical Area
2. Failing Systems outside the Critical Area
3. Non-Conforming Systems
4. New Construction



MARYLAND IMPROVED PARCELS ON SEPTIC SYSTEMS 2007



September 2008
Maryland Department of Planning



Note: Baltimore City does have septic systems but that data is not included in this analysis.



BAT Funding

- Initially BAT Installations Were Voluntary
- \$8 M Equated to ~ 500 Upgrades per Year
- 2007 – 2009 MDE Struggled To Get Money Spent



Major Amendments to BRF

- 2008 - BRF Money Could be Used to Connect Existing Houses to ENR WWTP Only If Area is Within PFA.
- 2009 – BATs Required for New Construction and Repairs in C.A.
- 2012 - BRF Fee Doubled to \$60/yr.



Major Amendments to BRF

- 2014 – Allows BRF Money to be Used for Sewer Connections for BNR WWTP in addition to ENR WWTP
- 2014 – Allows up to 10% of BRF Money Used for BAT Upgrades To Be Used by Local Government to Administer the Regulations.

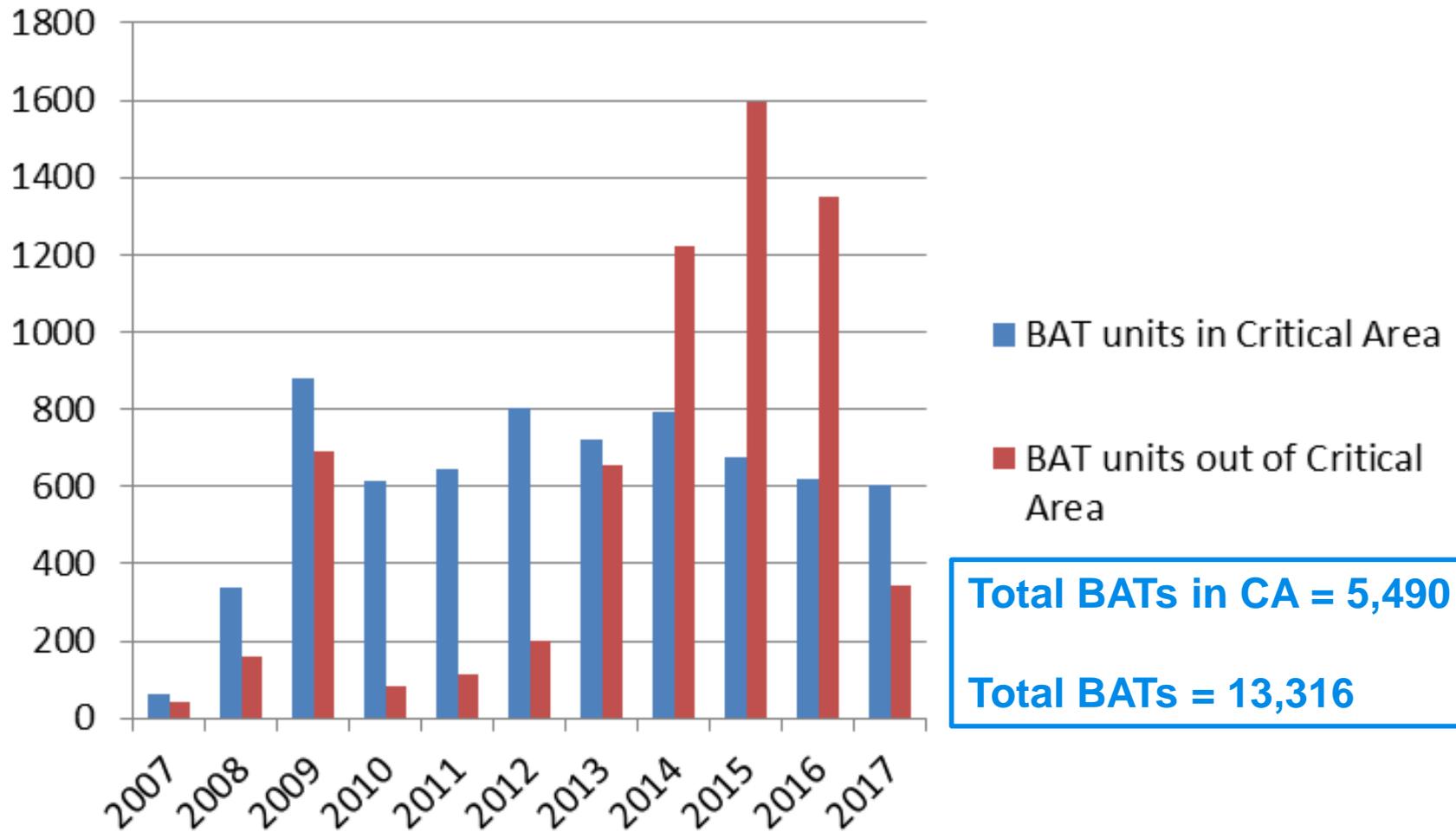


Major Regulatory Changes



- 2013 – BATs Required on All New Construction State-Wide and O & M Required in Perpetuity
- 2016 – BATs Not Required for New Construction and 2 Year O & M Required with Installation

BAT Installations to Date



MDE BAT Database

- All BATs Entered into a Central Database
- Tracks Installations and Service
- Accessible by MDE, Counties, Manufacturers, and Service Providers
- Queries Provide List of BATs That Are Out of Compliance or Malfunctioning

BAT Agreements

- In Spring 2014, MDE Presented Counties with a Draft MOU for Accepting BRF Money to Implement BAT Regulations.
- Basic Elements Include:
 - Three Task Levels of Responsibility
 - Payment for Each Task Level Based on Number of BATs Installed per County

Level 1



- Technical Review of Proposed BAT Installation
- Verification of Contractor Certification
- Legal Review of Agreements to be Recorded
- Education and Training for Staff and Gen. Public
- Inspection of BATs (including Electrical)
- Monthly Reporting to MDE

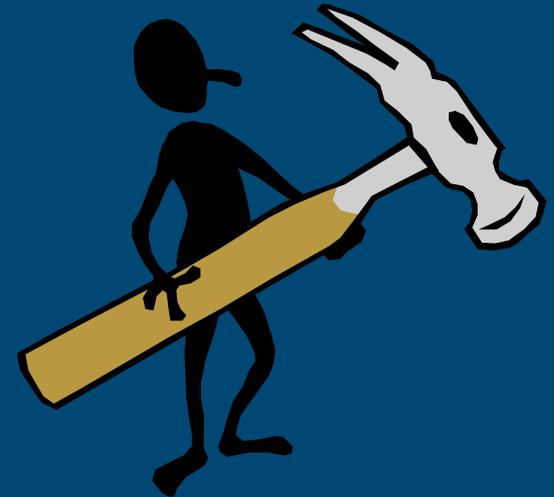
Level 2



- Tracking BAT Inspections/ Verifying Contractor Certification
- Issuance of Non-Compliance Letters
- Performing Inspections for Non-Compliance or Complaints on BAT Systems.
- Monthly Reporting to MDE.

Level 3

- Issuance of Violations / Citations for Non-Compliance BATs.
- Preparation for and Appearance in Court Regarding Violations
- Handling Appeals
- Monthly Reporting to MDE



Participation So Far

- 11 Counties Doing Level 1
- 3 Counties Doing Levels 1, and 2
- 9 Counties Doing Levels 1,2, and 3

Staffing Needs?



- Assuming 10% of Properties would require Field Inspections and Enforcement:
- Ave Time ~ 1 Hr /Property
- 1 Full Time Staff Person / 2,000 BAT Units

Programmatic Challenges

- Database Accuracy
- Getting all Service Providers Access to Database and Trained
- Getting All 23 Counties to Cooperate
- Enforcement

Complaints from Public

- Cost of Initial Installation (If Not Grant Funded)
- Cost of O & M
- Limited Number of Service Providers
- Perceived Devaluation of Property

Questions?

