

# Proposed Approach to Developing Maryland's Phase III WIP

April 25, 2017  
Kick-off Webinar



Presentation by:  
Jim George, MD Department of Environment



# Purposes & Outcomes

- **Purposes:**
  - **Initiate Conversation on Maryland's Phase III WIP**
  - **Propose a WIP Development Approach**
  - **Solicit Feedback and Questions**
- **Desired Outcomes:**
  - **Provide Responses to Partner's Questions**
  - **Advance Common Understandings**
  - **Stakeholder Advice on Next Steps**

The background is a watercolor illustration featuring several green leaves of various shapes and sizes, some with prominent veins. Interspersed among the leaves are several brown acorns with their caps, some showing the textured surface of the cap and the smooth surface of the nut. The overall style is soft and artistic, with a white background.

# Background

# Nutrients & the Bay

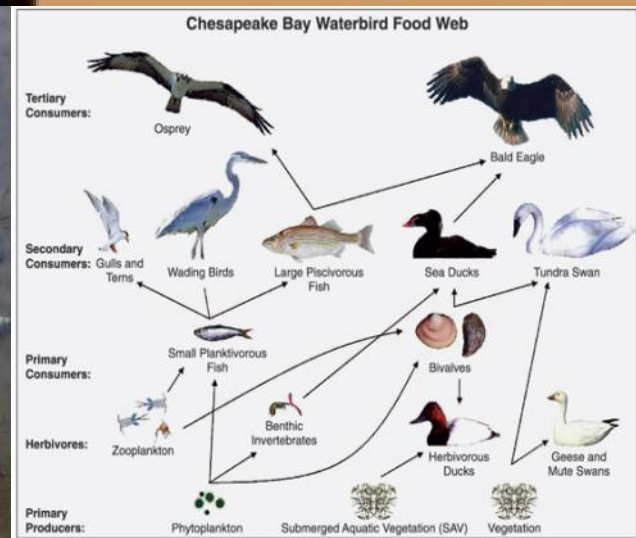
Seminal 1982 Report: Excess Nutrients are the main cause of the Chesapeake Bay's degradation:



Kills Underwater Grasses



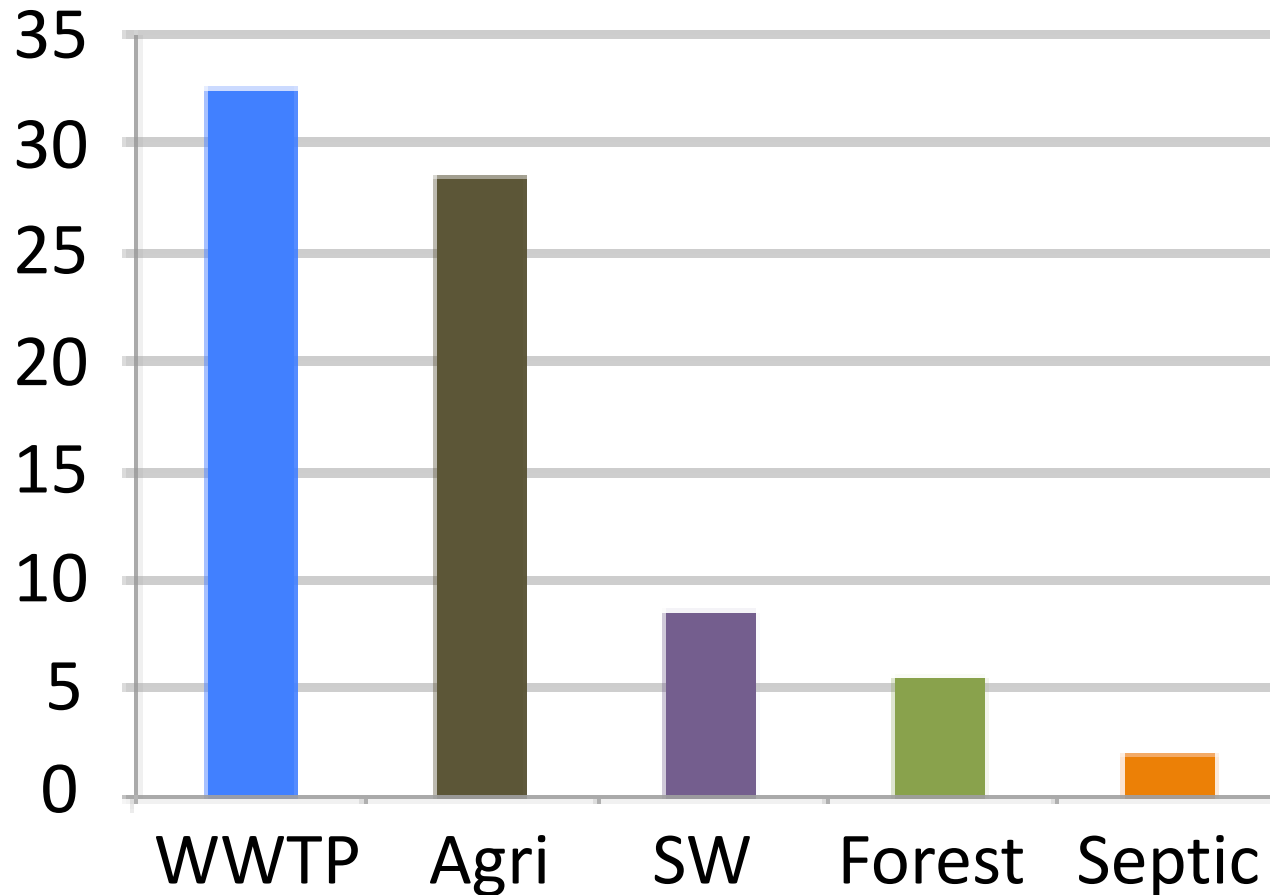
Causes Fish Kills & Toxic Algal Blooms



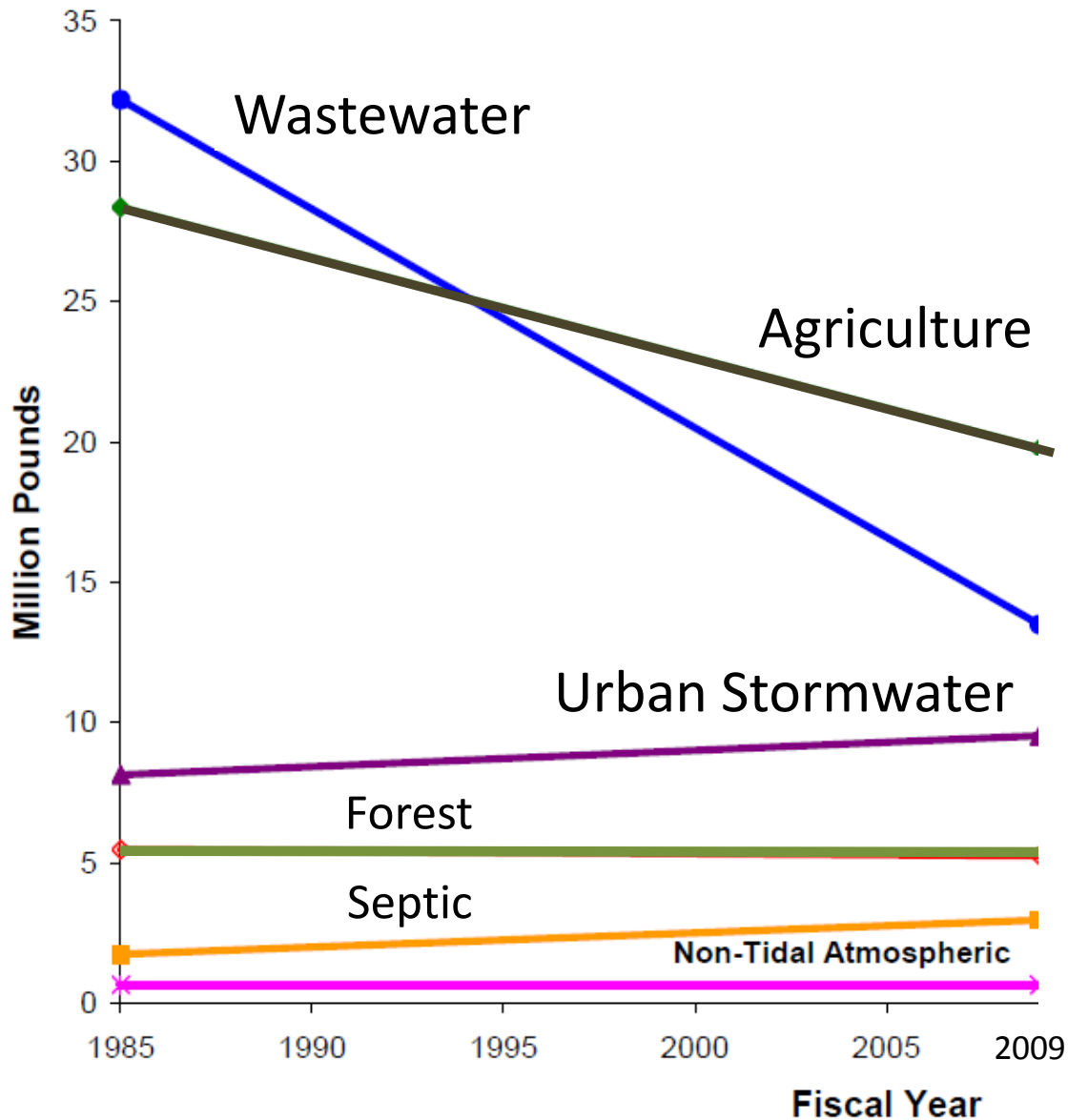
Breaks Food Chain Links

# Nitrogen Loads by Source Sector in 1985

(millions of pounds per year)

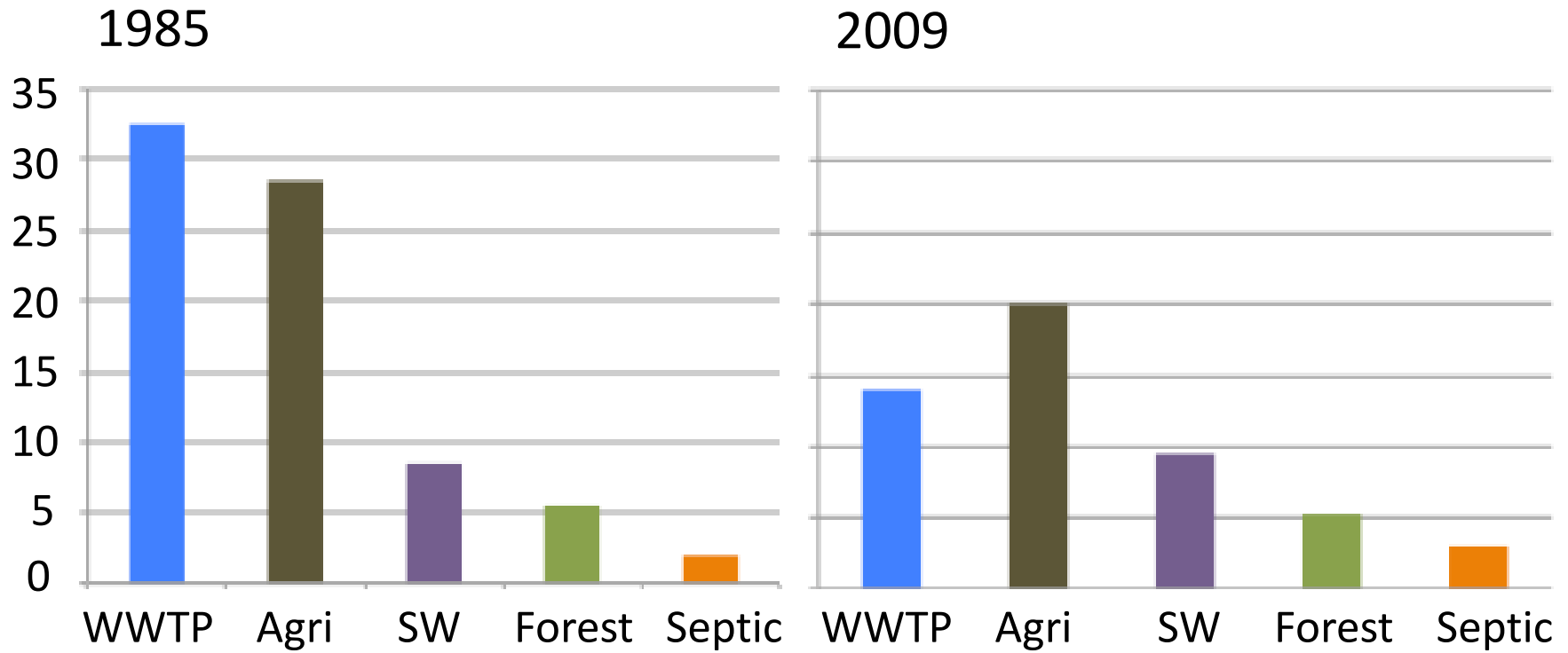


# Maryland Nitrogen Changes: 1985 - 2009



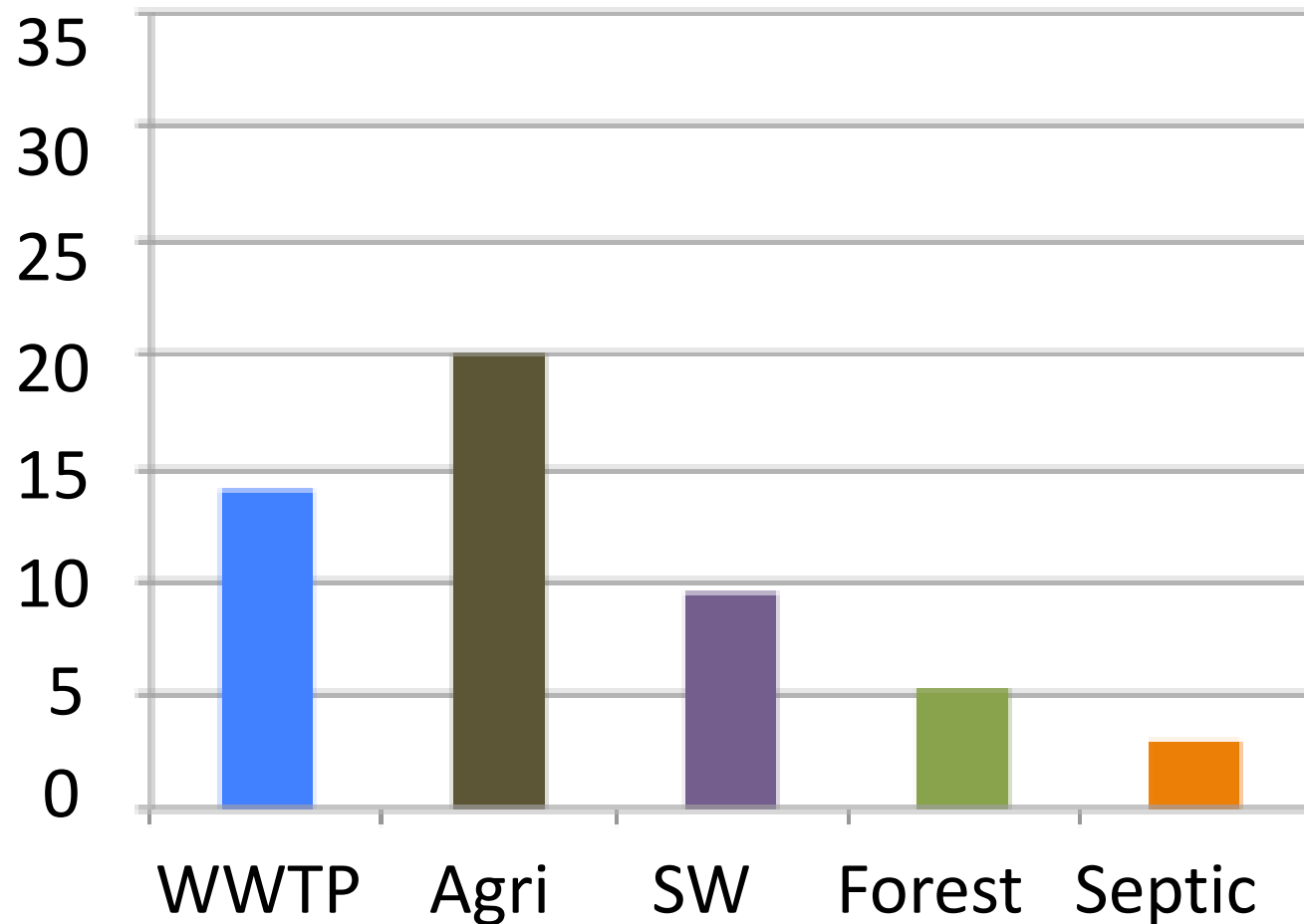
# Maryland Nitrogen Changes: 1985 – 2009

(millions of pounds per year)



# 2009 Loads by Source Sector

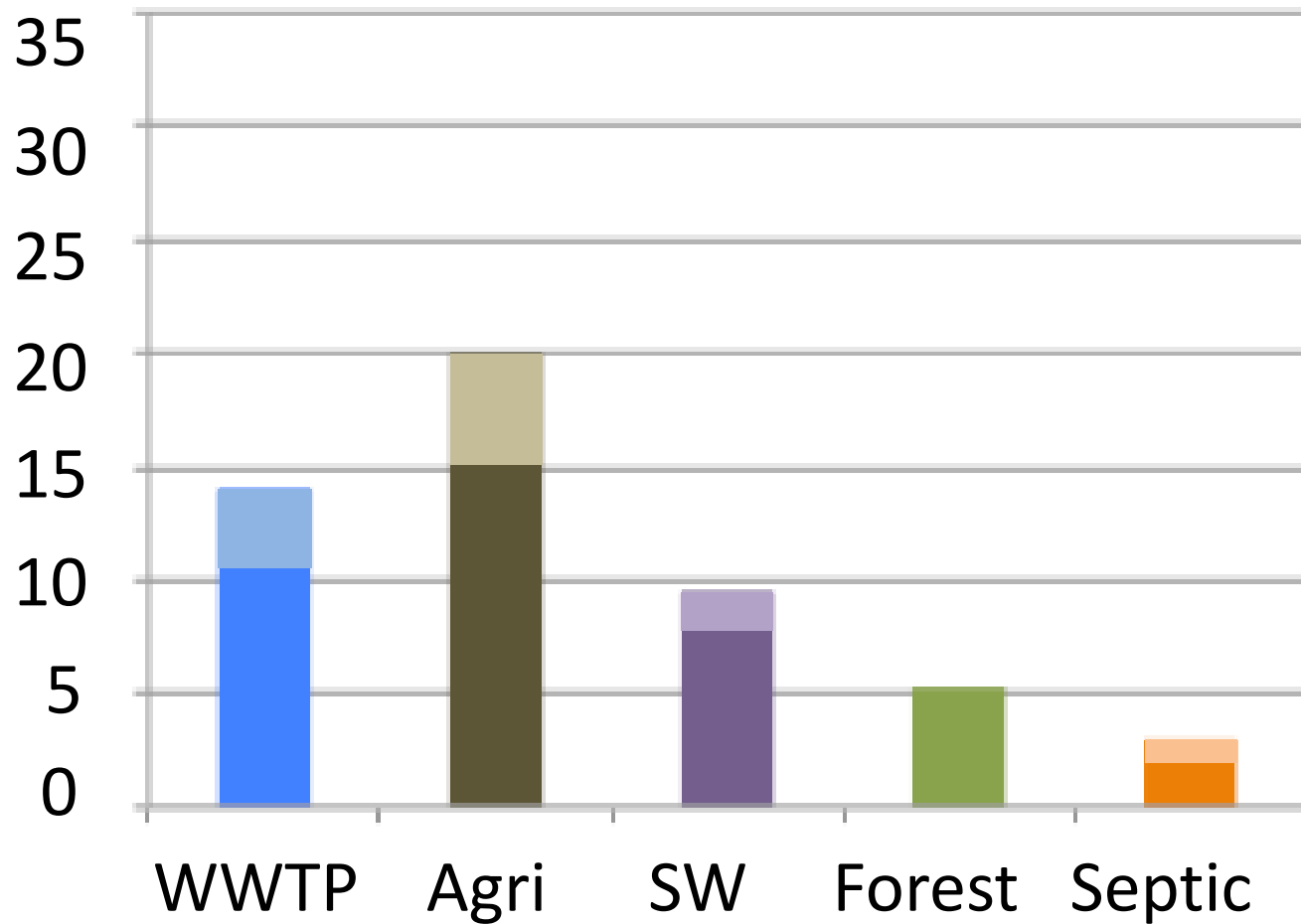
(Nitrogen - millions of pounds per year)





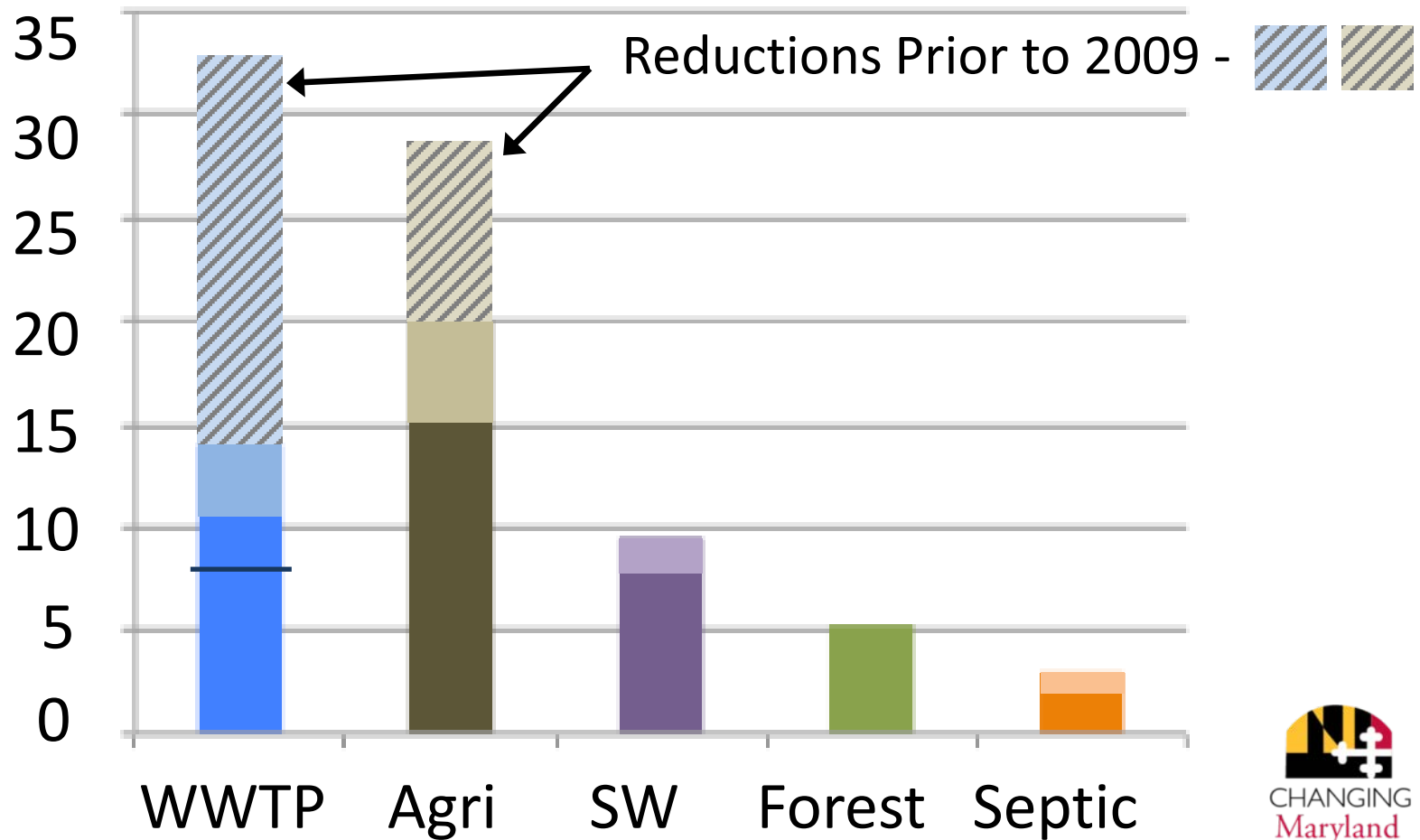
# Phase II WIP Reduction Responsibilities

(Nitrogen - million of pounds per year)

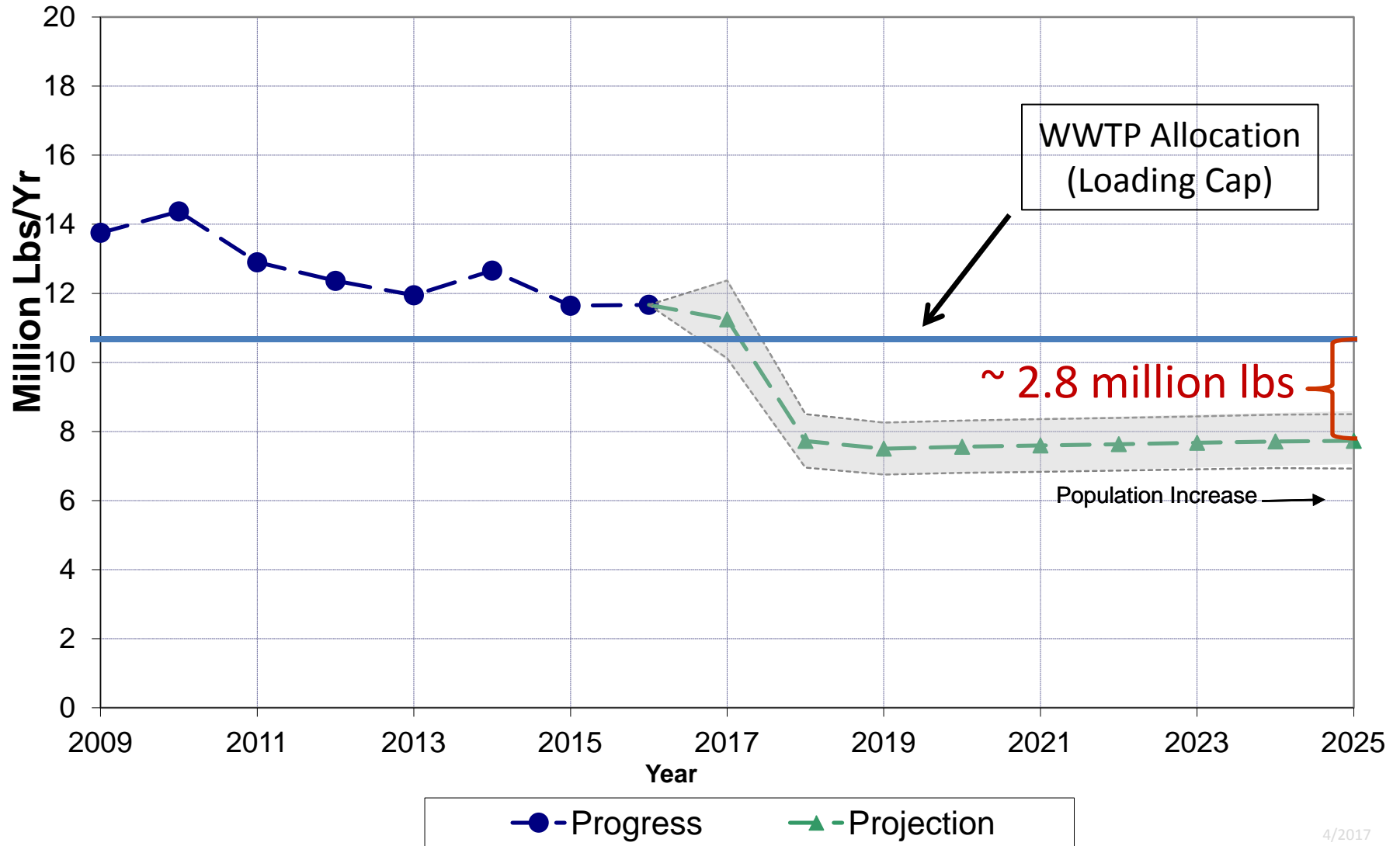


# Past Reductions & Phase II WIP Reduction Responsibilities

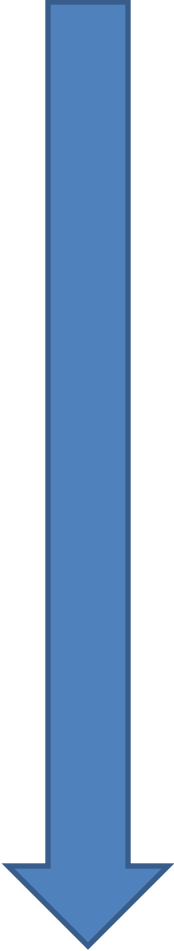
(Nitrogen - million of pounds per year)



# Nitrogen Load Reductions to the Bay Due to ENR Upgrades at 67 Major Municipal Treatment Plants



# Bay TMDL and WIP Timeline

- 
- 2010: Bay TMDL Established  
Phase I WIP
  - 2012: Phase II WIP
  - 2017: Midpoint Assessment:  
60% of Needed Actions in place &  
Improved Science
  - 2018: Phase III WIP
  - 2025: Portfolio of Actions must meet  
100% of Final Target
  - Beyond: Continue Making Reductions and  
Maintain Nutrient Cap

# Phase III WIP Building Blocks

- Phase I/II WIPs
- 2016 - 2017 Milestones
- BMP Cost-Effectiveness Information
- Funding Programs & Financial Framework
- Technical Partner Outreach Initiatives
- Monitoring & Modeling: Landuse, BMPs, Septic Numbers, Conowingo
- EPA WIP Expectations Document
- Maryland Section 38 Report: WIP Framework



# EPA Chesapeake Bay Program Phase III WIP Expectations



- Outline of Bay Program's Interim Expectations:
  1. Implementation Commitments between 2018-2025
  2. Local Engagement Strategies and Commitments
  3. Accounting for Growth
  4. Adjustments to Geographic and Source Sector Goals
  5. Local Area Planning Goals
  6. Additional Reductions to Offset Conowingo Infill
  7. Incorporating Influences of Climate Change
  8. State-Specific Expectations

# Section 38 Report, Part 3: Framework for Reaching 2025 Target

- Six Elements of Maryland's Bay Restoration Framework:
  1. Use WWTP growth allocations wisely to preserve options for future growth
  2. Mitigate the future impact of growth in pollutant loads
  3. Transition to credit-based financing/accounting
  4. Reaffirm that restoration responsibility starts and ends with the States
  5. Complete a strategy to address the cost to implement remaining nutrient and sediment reductions
  6. Recognize that Success doesn't end in 2025



# Responses to Questions Submitted Before the Kick-off Webinar



# Stakeholder Questions:

1. What differences are anticipated in the Phase III WIP?
  - A. What are anticipated substantive differences WIP 3?

## Response:

- **Keystone Strategy:** Meet the 2025 Final Target in aggregate among septic, stormwater and wastewater, temporarily relying on wastewater surplus reductions at 2025.
- **Beyond 2025:** Establish mechanisms to ensure future wastewater capacity is available when needed after 2025.
  - Continued reductions from septic and stormwater sectors
  - Consider other mechanisms & contingencies
- **Phosphorus:** Load estimates are anticipated to be higher.
- **Account for Conowingo Sediment Infill & Climate Change**

# Stakeholder Questions:

1. What differences are anticipated in the Phase III WIP?
  - B. What differences in WIP 3 development process, i.e., Is it a State WIP? Will there be Local WIPs?

## **Response:**

- Further stakeholder dialogue is needed to address this.
- The State is ultimately responsible for the WIP.
- Local involvement in the Phase III WIP development process will likely strike a balance between the prior two WIPs.
- WIP 2 had three local products (TBD for WIP 3):
  - BMP Strategies
  - Narrative Strategies
  - 2-Year Milestones (BMPs & Programmatic)

# Stakeholder Questions:



**2. Planning Models:** What is/are the acceptable method(s) to calculate planned and implemented reductions? MAST? CAST? Urban BMP Calculator?

## **Response:**

- Focus will be on, “How much implementation is possible by 2025 given an ambitious yet practical pace?”
- If needed, choice of tools by local partners is flexible. CAST will replace MAST for WIP 3 and is recommended, because it will mirror the Phase 6 Watershed Model.

# Stakeholder Questions:



**3. Training & Guidance:** Will MDE be holding any Phase III WIP training session other than this webinar? Will there be guidance documents available?

## **Response:**

- **Training:** MDE can provide CAST training if needed after the tool is completed in late 2017.
- **Guidance:** The kick-off webinar will be followed by subsector specific guidance and discussion sessions, likely in June. Other forums will be organized as needed. Written guidance may be developed as needed.

# Stakeholder Questions:

4. **Support Staff:** Will the state be assigning support staff, as it did for the Phase II WIP?

## Response:

- **Liaison:** Single contact for WIP 3 development:  
**Ms. Kathy Stecker:**
  - Email: [Kathy.Stecker@Maryland.gov](mailto:Kathy.Stecker@Maryland.gov)
  - Call: (410) 537-3864
- **Other Support:** Ms. Stecker will guide people to other technical support contacts as needed. Liaisons for particular issues and subsectors are still under consideration.



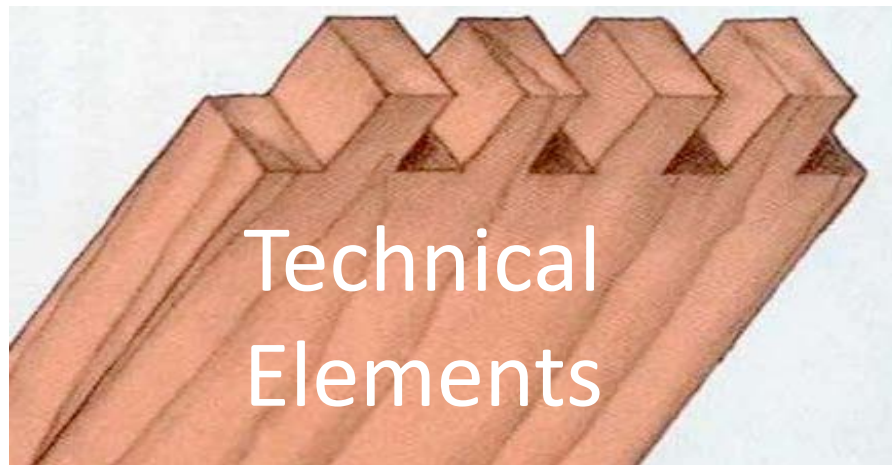
# Proposed Approach to Developing Maryland's Phase III WIP

Graphic: Marcella Studio

# Local Engagement to be Interlaced with WIP Technical Elements



WIP Development Process



# Overview of Phase III WIP Development

**Work jointly on a fiscally responsible path to Final Target:**

- First Round Strategy Development
- Gap Assessment
- Second Round Strategy Development

**Establish strategies that extend beyond 2025:**

- Identify mechanisms to recoup loading capacity that is shifted among urban sectors to meet Final Target
- Continue to operate under the cap beyond 2025



# WIP Development Schedule

- Potential Delay:
  - Technical delays may affect the schedule.
  - 4-Month delay under consideration.
  - Maryland leadership yet to weigh in on schedule.
- Delay would not affect initiation of Maryland's proposed WIP development process:
  - Initial process asks, “How much implementation is possible by 2025 with current capacity?”
  - Initial process should explore potential program enhancements to increase restoration capacity.

# Draft WIP Development Timeline

- Spring – Fall 2017: First Round of Planning
- Jan/Feb 2018: Initial Gap Analysis
- Early Spring 2018: Second Round of Planning\*
- Late Spring 2018: Final Gap Analysis\*
- Early Summer 2018: Finalize Reduction Strategy\*
- Mid Summer 2018: Finalize & Review WIP Report\*
- Late Summer 2018: Submit Draft WIP to EPA and initiate public review\*

\* Subject to change due to potential schedule delay

# Nutrient Source Subsectors & Other Reduction Opportunities



- **Stormwater:**
  - ✓ Phase I MS4s
  - ✓ Phase II MS4s (jurisdictions & State and federal facilities)
  - ✓ Non-MS4s
  - ✓ Industrial
- **Wastewater:**
  - ✓ Municipal WWTPs (Major & Minor)
  - ✓ Industrial (Major & Minor)
  - ✓ Septic Systems
- **Agriculture:**
  - ✓ Pasture, Crops
  - ✓ Manure Management
  - ✓ CAFOs
- **Other Sources & Opportunities:** Atmospheric, oysters, afforestation, Innovative & Emerging Technologies

# Next Steps



- Subsector Guidance & Discussion Sessions tentatively scheduled for June, with possible follow-ups. (Dates TBD)
- What would be most helpful? Webinars, meetings, web resources, other?
- Other Forums with local government partners as needed during 2017
- Agriculture: MDA County-level meetings with SCDs parallel to local government process.





MARYLAND

Coming  
Soon

Search this site

Chesapeake Cleanup Center

## Cleaning the Chesapeake

How Maryland is restoring a National Treasure.



Welcome to Maryland Department of the Environment's Chesapeake Bay Cleanup Center: Maryland's homepage for Bay restoration.



Local Partners

The latest Bay restoration updates, resources, and information for and about our local jurisdictions.



### Bay Basics

The Chesapeake Bay is the largest estuary in the United States and is



### Maryland's Bay Cleanup Plan

A comprehensive Chesapeake Bay



### Progress & Reports

MDE tracks and reports Bay

# End

## Contacts

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