



# **Chesapeake Bay TMDL & Watershed Implementation Plans**

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Presentation to the Hampton Roads Planning District Commission







# A Bit of History

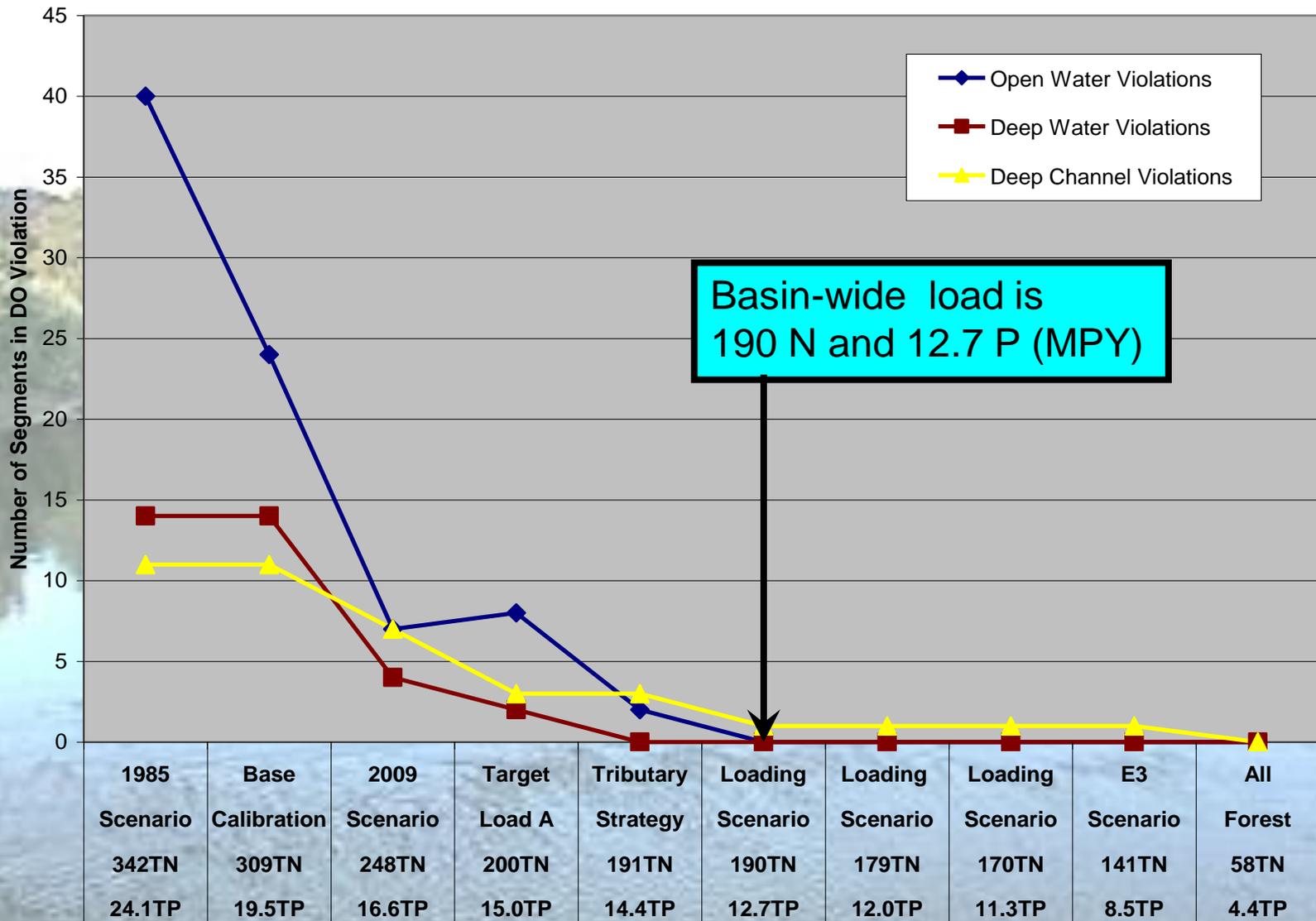
## Series of Agreements & Commitments

- **1983** (1 page)
  - There's a Problem – Work Together
- **1987** (7 pages)
  - 40% Reduction in Nutrients
- **1992** (back to 3 pages)
  - Work Upstream
  - Develop Tributary Strategies
- **1996** Shenandoah/Potomac Tributary Strategy
- **1999** Consent Decree – TMDLs
- **1999** Bay and Tidal Rivers listed on 303(d) List

# More History

- **1999-2000** James, Rapp, York, E.S Tributary Strategies
- **2000** (13 pages & 100+ commitments)
  - Beyond 40% - Delist the Bay and Rivers
- **2005** State-wide Tributary Strategy
- **2006-2009** Annual Bay & River Clean-Up Plans
- **And Now** – Bay TMDL

# Dissolved Oxygen Criteria Attainment



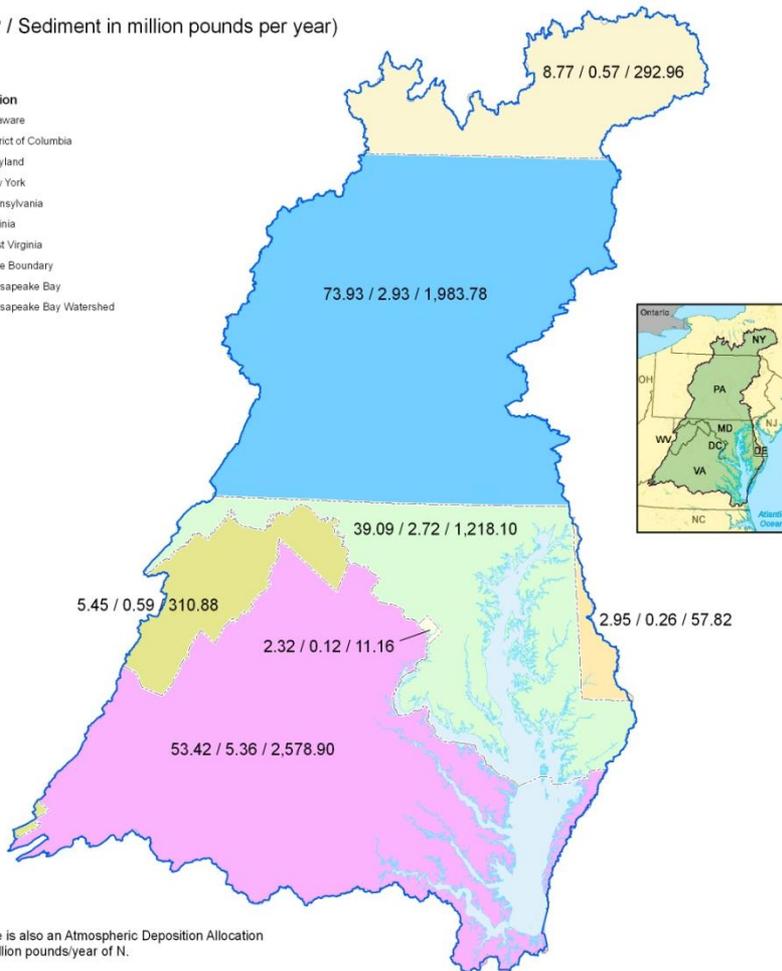
# Pollution Diet

## ...by State

(N / P / Sediment in million pounds per year)

### Jurisdiction

- Delaware
- District of Columbia
- Maryland
- New York
- Pennsylvania
- Virginia
- West Virginia
- State Boundary
- Chesapeake Bay
- Chesapeake Bay Watershed



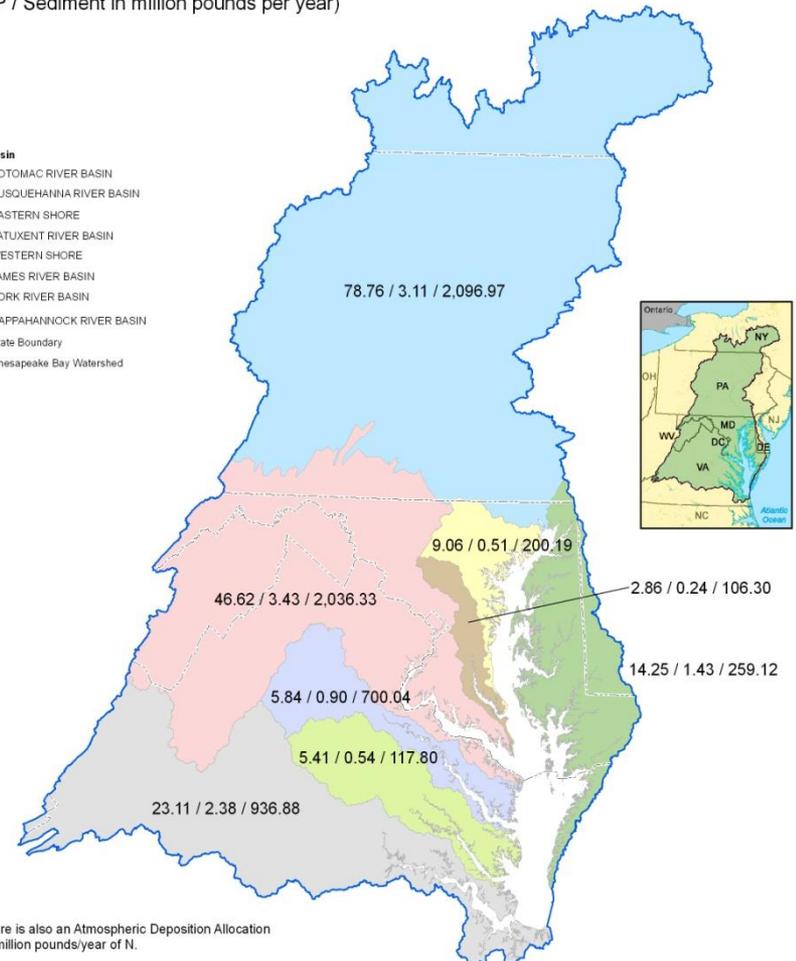
Note: There is also an Atmospheric Deposition Allocation of 15.70 million pounds/year of N.

## ...by River

(N / P / Sediment in million pounds per year)

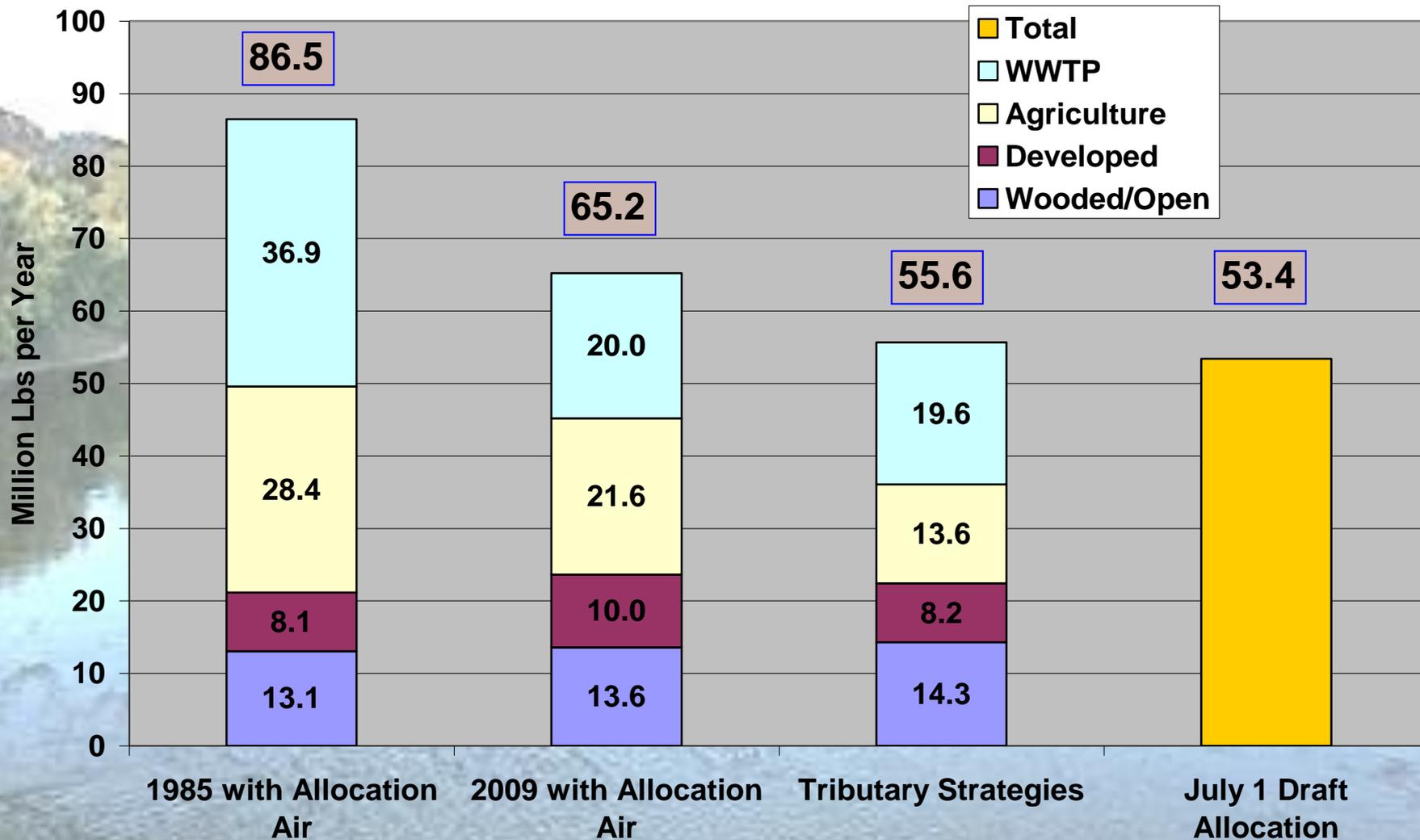
### Major Basin

- POTOMAC RIVER BASIN
- SUSQUEHANNA RIVER BASIN
- EASTERN SHORE
- PATUXENT RIVER BASIN
- WESTERN SHORE
- JAMES RIVER BASIN
- YORK RIVER BASIN
- RAPPAHANNOCK RIVER BASIN
- State Boundary
- Chesapeake Bay Watershed



Note: There is also an Atmospheric Deposition Allocation of 15.70 million pounds/year of N.

# Virginia Nitrogen Loads by Sector and Scenario - CBP Watershed Model p5.3



# Virginia Law

## *CHESAPEAKE BAY AND VIRGINIA WATERS CLEAN-UP AND OVERSIGHT ACT*

*62.1-44.117*

Approved March 24, 2006

# VA Law Requirements

- ***Develop a plan for the cleanup of the Chesapeake Bay and Virginia's waters designated as impaired by the U.S. Environmental Protection Agency***
- ***The plan shall be revised and amended as needed to reflect changes in strategies, timetables, and milestones***

**Continued...**

***The plan shall address both point and nonpoint sources of pollution and shall include, but not be limited to the following:***

- 1. Measurable and attainable objectives;***
- 2. A description of the strategies to be implemented;***
- 3. Time frames or phasing to accomplish plan objectives and the expected dates of completion;***
- 4. A clearly defined, prioritized, and sufficiently funded program of work within the plan both for point and nonpoint source clean-up projects;***
- 5. A disbursement projection plan;***
- 6. Potential problem areas where delays in the implementation of the plan may occur;***
- 7. A risk mitigation strategy;***
- 8. A description of the extent of coordination between state and local governments;***
- 9. Assessments of alternative funding mechanisms***

# Watershed Implementation Plans

~Expectations~

## Similar to VA Law Requirements

1. **Interim and Final Nutrient and Sediment Target Loads**
2. **Current Loading Baseline and Program Capacity**
3. **Gap Analysis**
4. **Account for growth**
5. **Commitment and Strategy to Fill Gaps**
6. **Tracking and Reporting Protocols**
7. **Contingencies for Slow/Incomplete Implementation**
8. **Appendix with Detailed Targets and Schedule**

**60% by 2017!!**

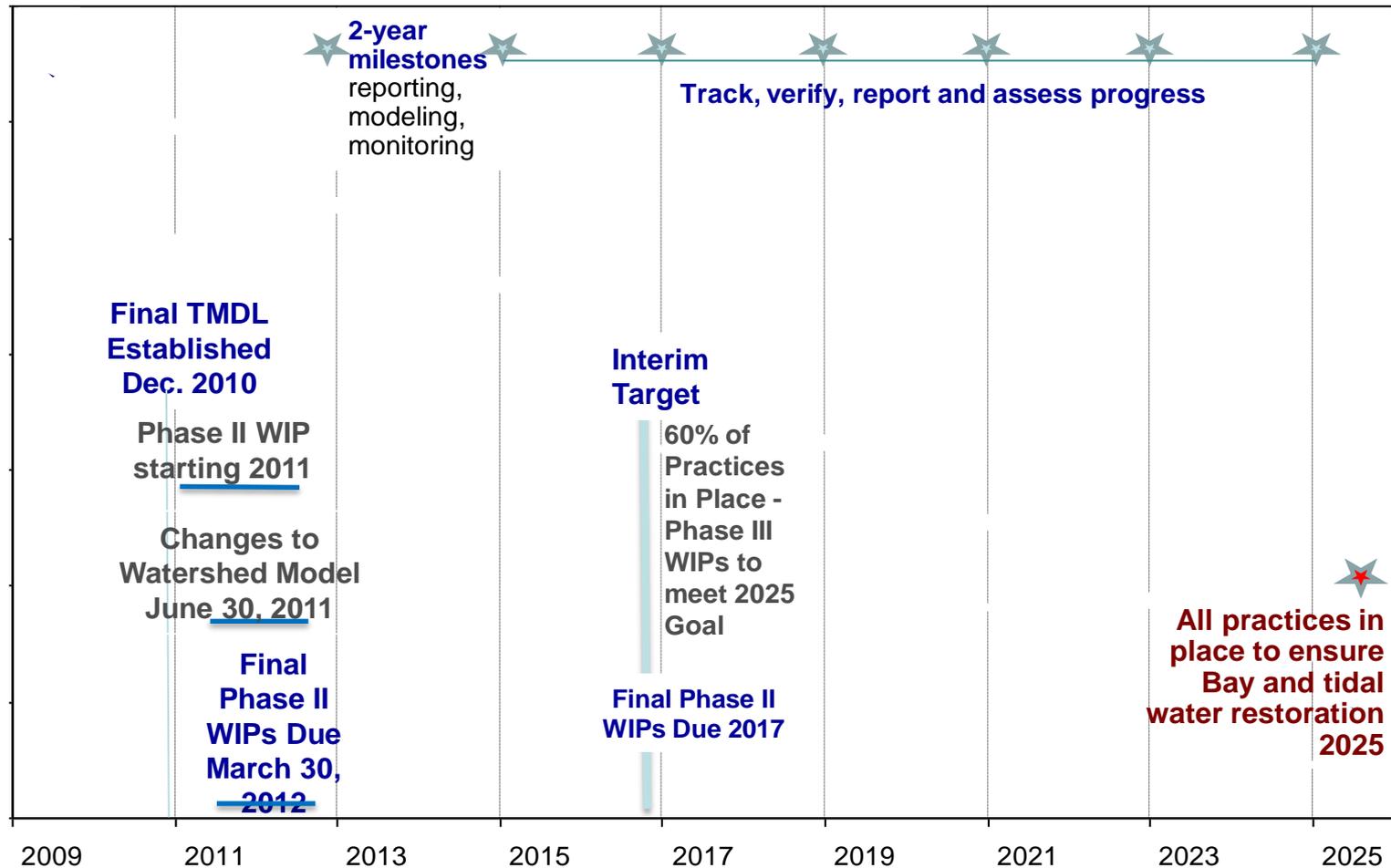
# None of This is All That New

- We've been at this a while
- We've had a pretty good idea of what needs to be done – “Trib Strat Effort”
- We've developed clean-up plans before
- We've developed many TMDLs
- Many of the partners have been at the table awhile

# So How is the TMDL Different?

- Accountability
- Assurance
- Step-wise progress ...milestones, 2017
- New Clean-Up Date
  - No Later Than 2025
- Transparency
- **Backstop Actions**

# TMDL and WIP Development Schedule: 2009-2025



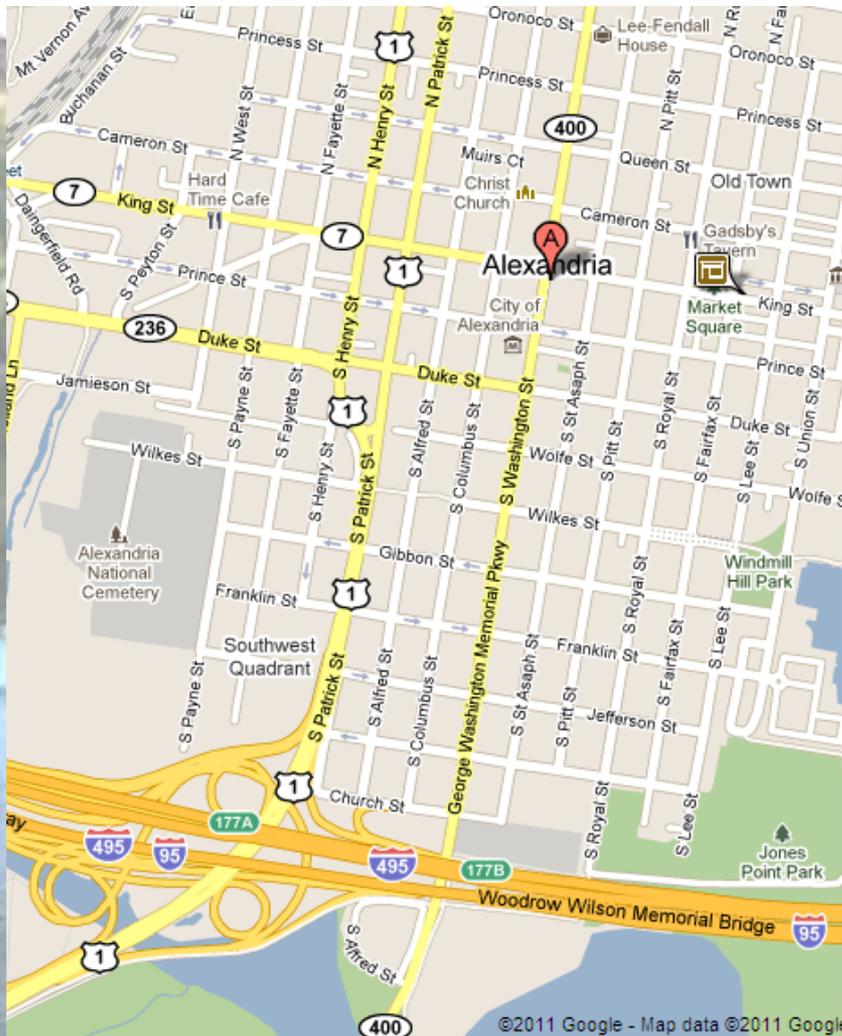
# Flexibility

- Focus on Milestone Achievement
- Staged Implementation Approach for Wastewater Treatment Facilities in the Virginia James River Basin
  - (TMDL App X)
- Better accounting of practices – CBP Established Process
- 15 year Implementation Timeline
- Innovation Encouraged
- Expanded Trading

# Stormwater – MS4 Permits

- Draft WIP included very aggressive stormwater reductions
- Final WIP proposed baseline + % reductions over 3 permit cycles
- TMDL included *individual* Waste Load Allocations
- VA prefers *aggregate* allocations
- EPA & VA Close to Resolution

# Primary Purpose of Phase II WIPs: Taking It Local!



- Provide roadmap at scale that helps partners reach their goals
- Respond to concern that Tributary Strategies not understood at local level
- Engage local decision-makers
- Primary EPA expectations for Phase II (November 2009):
  - Divide TMDL allocations to finer scale. Targets are not finer scale allocations
  - Provide specific controls that will be implemented by 2017
- Extra time so 7 Bay jurisdictions could work with local decision-makers in Phase II strategies

# Phase II WIP

- “Guide” issued today
- Extension to schedule issued today
- Contractor Support

# Costs

**True – It will take a significant \$ investment**

**We have known this for a long time**

- Nov '10 WIP - Upwards of \$7 Billion
- 2005 Statewide Tributary Strategy - ~\$10B
- 2005 James Tributary Strategy - \$4.5B

# EPA Support to States

## Financial and Contractual Support

- \$11.2 million for Chesapeake Bay Regulatory and Accountability Program grants
- \$400,000 in WIP contractual support to states
- \$300,000 for local WIP pilots
- Additional \$200,000 for state WIPs support, especially offset program development

## Technical Support

- Identified extensive WIP expectations and guidelines
- Facilitating “information sharing” among states
- “What if” scenarios
- Subject area experts
- Outreach

# TMDL and WIP Development Schedule: 2009-2017

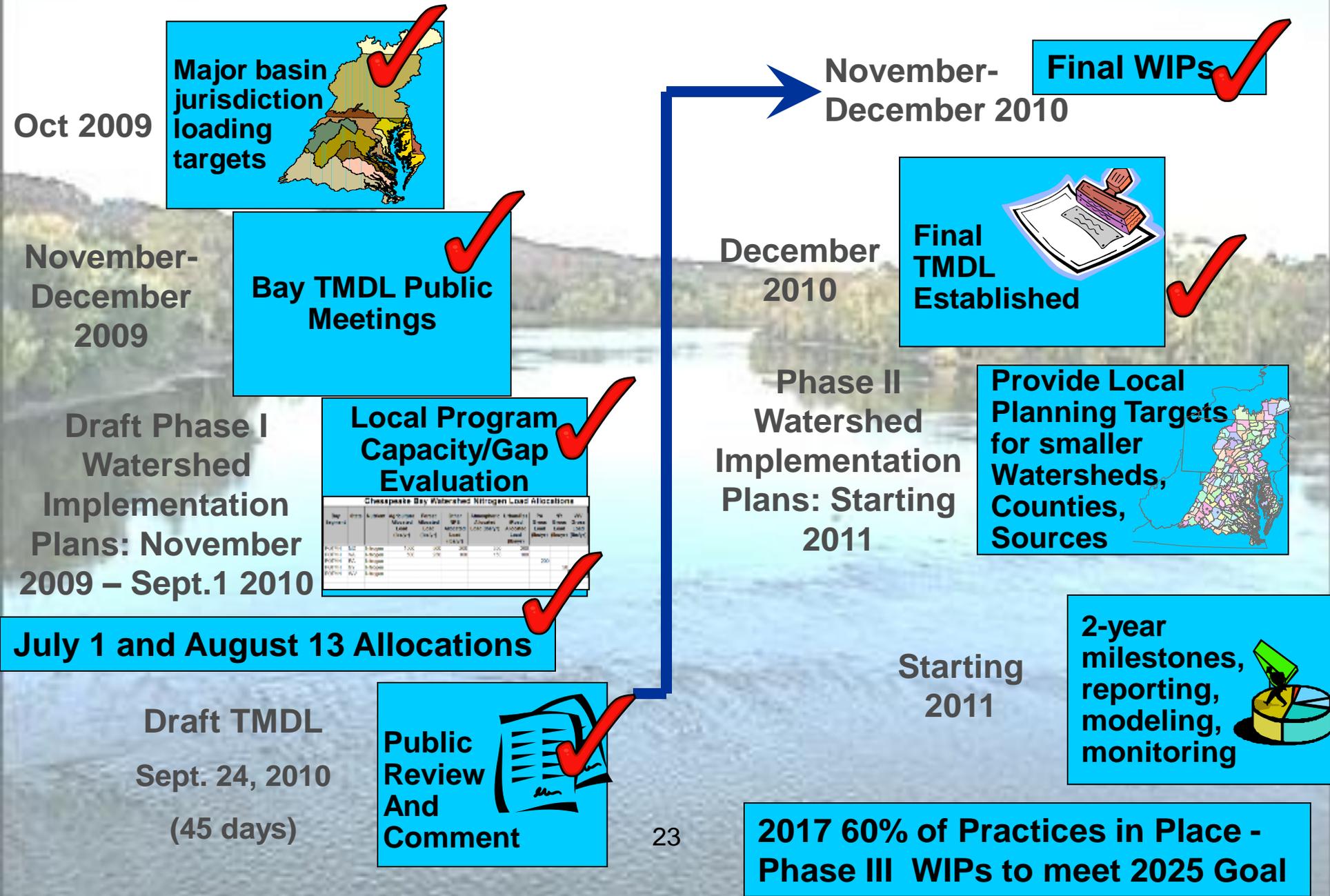




Image courtesy Guy Stephens