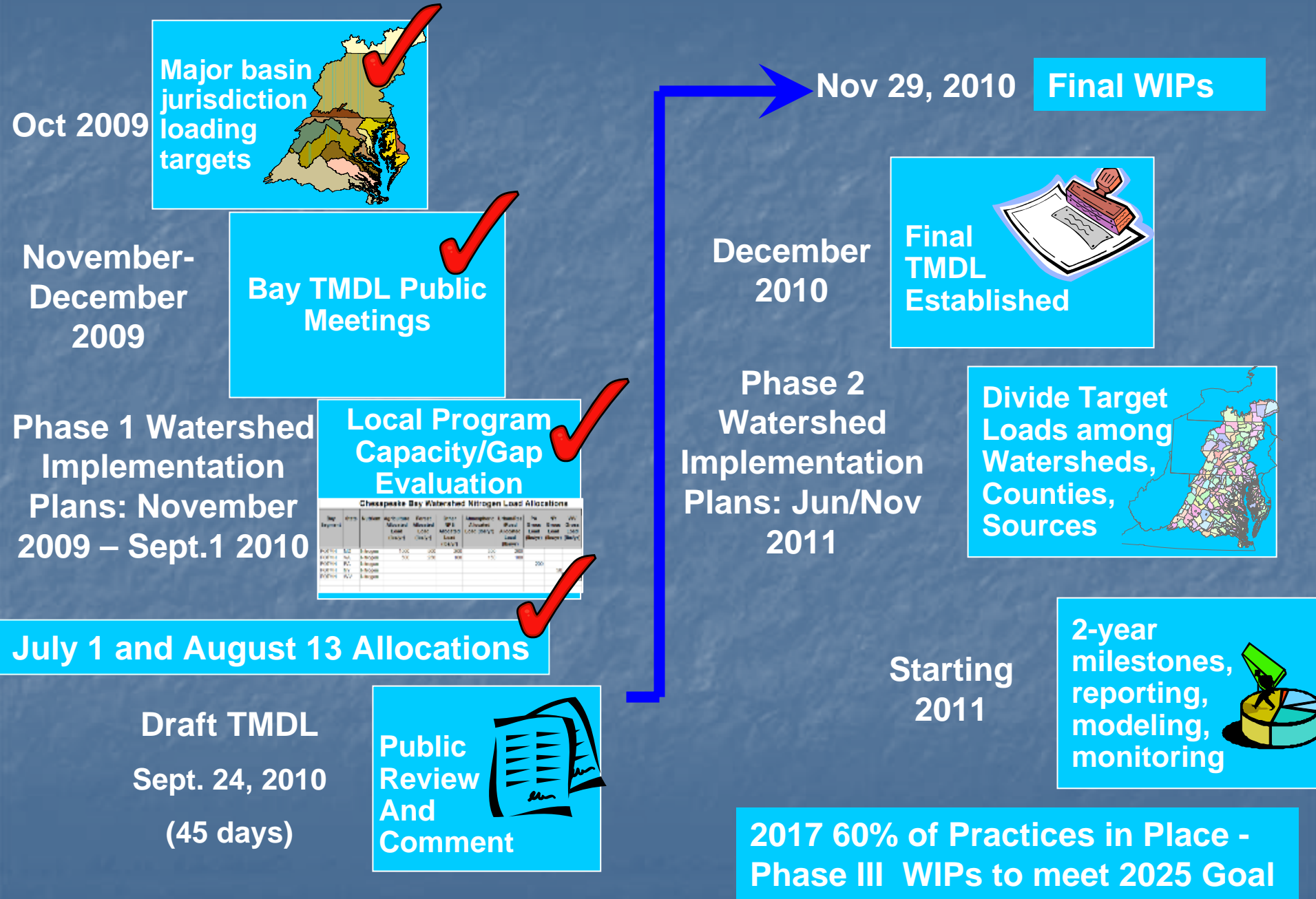


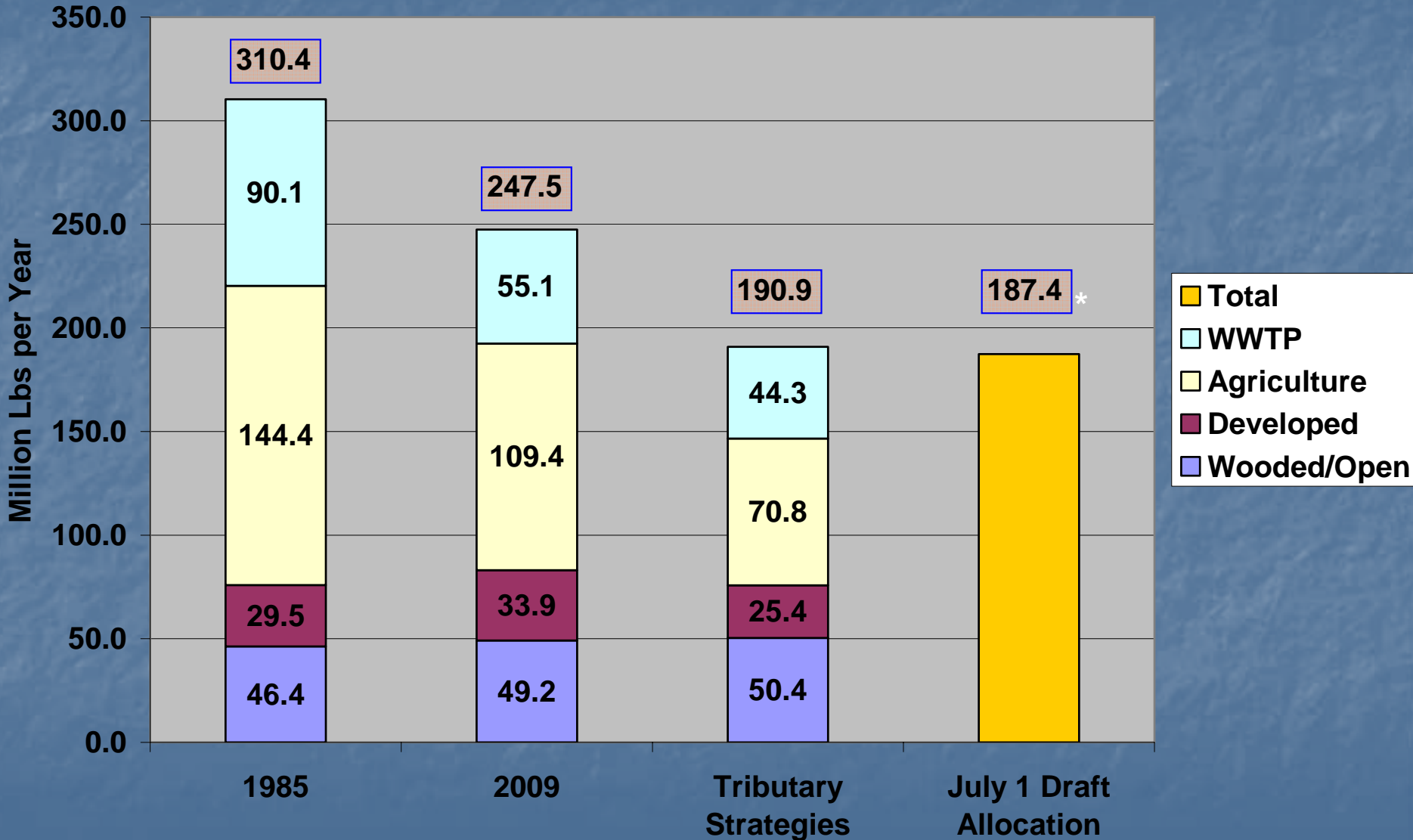
Chesapeake Bay Draft TMDL

Overview of the Draft TMDL and
WIP Evaluations
September 2010

Bay TMDL and WIP Schedule: 2009-2017

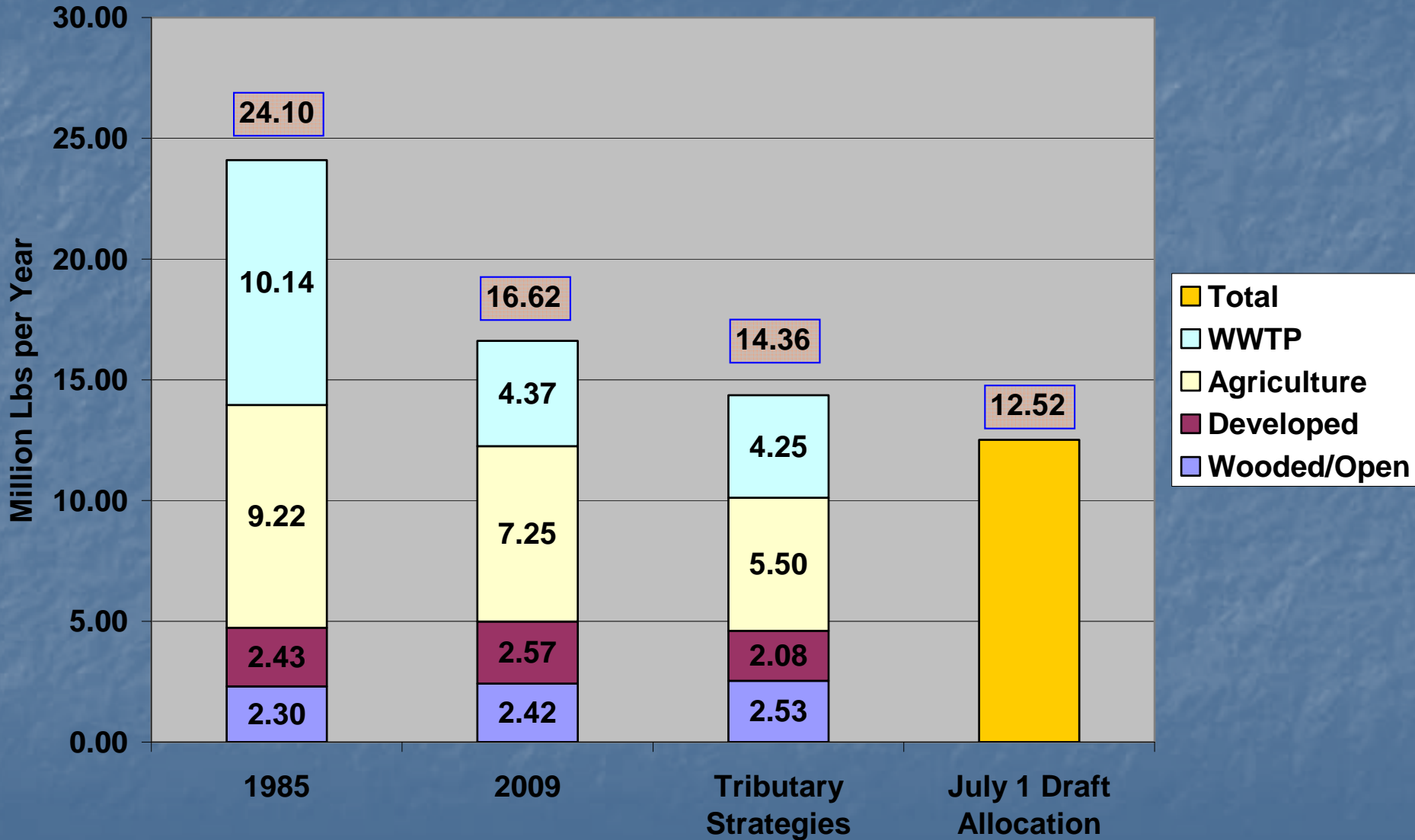


Nitrogen Loads by Sector and Scenario - CBP Watershed Model p5.3

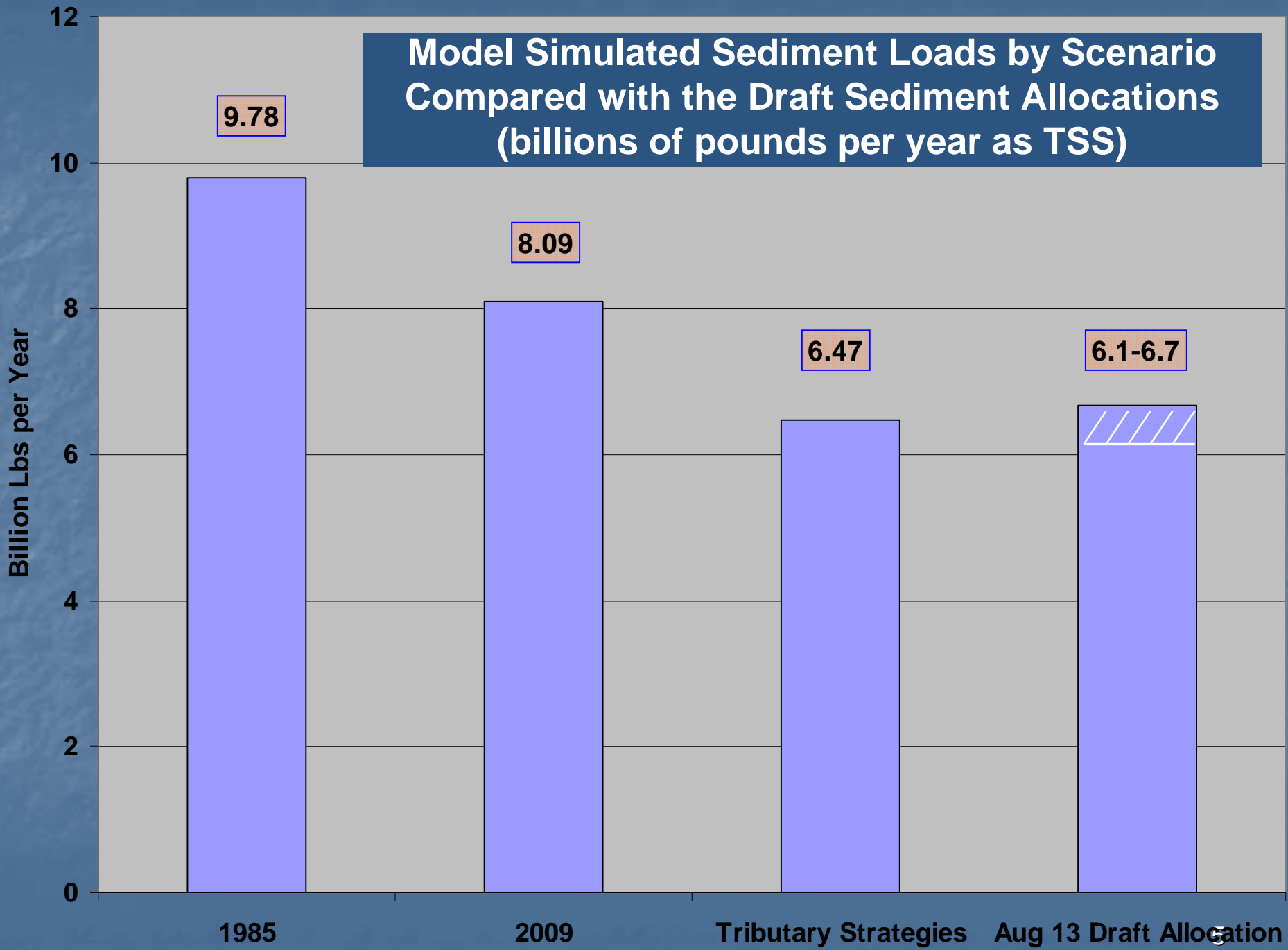


* Note: This is land based allocated load. Air allocation is an additional 15.7 mpy³ N

Phosphorus Loads by Sector and Scenario - CBP Watershed Model p5.3



Model Simulated Sediment Loads by Scenario Compared with the Draft Sediment Allocations (billions of pounds per year as TSS)



Executive Summary

– WIP Evaluation Findings

- 7 Jurisdictions Provided Draft WIPs and Sub-allocation Data Decks Sept 1-3 (distributing the load reductions to major sources and sectors)
-
- A Team of EPA Sector experts conducted a rigorous evaluation process
 - Common review criteria; Tiered the State submissions in 4 categories of quality and Reasonable Assurance;
 - Two goals were paramount:
 - achieving the load caps in all 19 basin-jurisdictions and 92 segments,
 - providing a high level of reasonable assurance that NPS controls will be achieved and permitting programs will result in point source reductions
- None of the WIPs provided full assurance that programs identified will achieve the nutrient and sediment reduction targets in all respects by 2017 or 2025; variable levels of assurance require variable levels of federal backstop actions
- Draft TMDL:
 - Employs Hybrid TMDL that merges Watershed Implementation Plan allocations with varying degree of Federal Backstop Allocation adjustments in **all 7** jurisdictions
 - Identifies additional Federal Backstop Actions that EPA is prepared to take in all 7 jurisdictions if not achieving milestones on schedule

Draft WIP Evaluation Findings

Only one jurisdiction (MD) achieved all its draft allocations at the statewide scale, but minor adjustments will be necessary among Maryland basins

None of the WIPs provided satisfactory reasonable assurance

- No strategy for filling recognized program or resources gaps
- Few enforceable or otherwise binding commitments
- Discrepancies between implementation programs and strategies described in a WIP
- Reliance on pollution trading programs--no commitment to adopt critical trading drivers such as new regulations
- Few dates for key actions and program-building milestones

Initial Findings: Stormwater

- A number of jurisdictions are lacking strong performance standards and specific, enforceable permit conditions
- Only one state included a strong retrofit program within their WIP; reductions from existing stormwater loads not possible without retrofits
- Number of proposed management practices' implementation rates are unreasonable to achieve by 2025

Initial Findings: Wastewater

- Some jurisdictions lacked detailed information for permit writer to derive permit conditions for nonsignificant dischargers
- Some jurisdictions did not identify all their wastewater dischargers
- One jurisdiction set all significant dischargers—with one exception—at 12 mg/L TN and 2 mg/L TP
- Tracking of nutrient loads and upgrade/compliance schedules needs improvement in most jurisdictions

Initial Findings: Agricultural

- Limited assurance that agricultural reductions will be met, given little to no detail on plan for building technical assistance, leveraging financial incentives and verifying implementation of practices
- Implementation rates of proposed conservation practices are unrealistic to achieve by 2025 unless incorporated into state technical standards or other regulatory programs
- No or limited commitment to improving phosphorus (P) management to address high P in soils and related excess manure
- Additional reductions may be possible through new technologies (e.g., manure incorporation)
- Compliance/enforcement strategies inadequate

How Do The WIPs Add Up?

- MD - Meets statewide allocations for nutrients and sediment, though individual basins are over for nitrogen, phosphorus or sediment
- DC - Meets for nutrients; not for sediment
- NY, DE and VA - Meets sediment, not for nutrients
- PA – Meets nitrogen statewide but not all basins; Over for phosphorus and sediment
- WV - Meets phosphorus, not for sediment or nitrogen
 - STATEWIDE TOTALS: 4 of 7 met for Sediment
2 of 7 met for Nutrients

Proposed Federal Backstop Allocations

- All jurisdictions require some level of Backstop allocation or adjustment to meet two priority requirements for the TMDL:
 - the allocations meet the July 1 and August 13 basin-jurisdiction allocations, which achieved standards in all 92 segments (the MATH adds)
 - the WIPs provide a high level of assurance of achieving the allocations, and in particular 60% target by 2017 through permitting and nonpoint source control programs

Federal Backstop Actions Include...

- Establish additional reductions from regulated point sources (e.g., wastewater treatment plants, CAFO, MS4s) (TMDL)
- Establish finer scale allocations for headwater states (TMDL)
- Expand NPDES permit coverage to unregulated sources
- Increase permit oversight/object to permits
- Require net improvement offsets
- Increased federal enforcement
- Condition or redirect federal grants
- Promulgation of local nutrient standards

Backstop Allocation Options

- Where gap-filling strategies have serious deficiencies or are fully inadequate, moderate and high level backstop allocations first focus on where EPA has the federal authority to control allocations through NPDES permits
 - Swapping out jurisdictions' proposed wasteload allocations and swapping in EPA "backstop allocations" for point sources
- Varying levels of regulatory controls were defined per category from Moderate to Full Backstop
- Minor backstop allocations do not result in changes to point source wasteload allocations that affect NPDES permit conditions

Three Levels of Action – Modifying the WIP Basis with backstop allocations

- Backstop allocation adjustments take 3 levels:
 - Minor (adjust load allocations to equal targets);
 - Moderate (uses Best State WIP practices; greater point source regulation)
 - High Backstop (Best State WIP practices for stormwater and AFO production areas; limit of technology concentration for WWTPs)
- A HYBRID TMDL that applies backstop allocations to point sources and nonpoint sources as necessary;
 - uses the WIP as the basis but modify with federal backstop actions with greater reasonable assurance under the Clean Water Act (apply the three levels of adjustment as noted above)
 - NOTE because of the dominance of Non Point Source loads, the end Hybrid TMDL will result in a higher level of enforceability but not achieve 100% reasonable assurance
- DC: EPA will adjust sediment allocations to meet the August 13 sediment range. Will ensure allocations are achieved through NPDES permits issued by EPA in the District
- MD: EPA will adjust nutrient and sediment load allocations among basins so that each basin meets the July 1 and August 13 allocations

Recommended Allocation Adjustments Per State – HYBRID TMDL

- MD – Minor Backstop
 - To ensure each basin meets July 1 and August 13 nutrient and sediment allocations
- DC – Minor Backstop
 - Adjust sediment to meet August 13 allocation range - strong DC MS4 permit is the main gap filler; no mention in DC's WIP
- VA – Moderate Backstop
 - James River requires close attention
- PA, NY, DE and WV – High Backstop for nutrients to fill significant math and reasonable assurance gaps
- Headwater States (PA, NY, WV) – EPA assigning finer scale wasteload and load allocations to same level of detail as tidal states. Ensures wasteload allocations can be translated into permit conditions

	WWTPs	Stormwater	AFO Production Areas
Moderate: (VA)	4 mg/L TN, .3 mg/L TP + Design Flow (MD ENR Strategy)	Construction: 100% Erosion & Sediment Control MS4: 50% of urban MS4 lands meet aggressive performance standard through retrofit/redevelopment 50% of unregulated land treated as regulated, so that 25% of unregulated land meets aggressive performance standard; designation as necessary	Waste management, barnyard runoff control, mortality composting Precision feed management for all animals Same standards apply to AFOs not subject to CAFO permits EXCEPT no feed management on dairies; designation as necessary
High Level Backstop (DE, PA, NY, WV)	Limit of Tech. concentration (3 mg/L N, .1 mg/L P) + Design Flow	Same as Moderate	Same as Moderate
Full Backstop	Limit of Tech. concentration (3 mg/L N, .1 mg/L P) + Current Flow	Same as Moderate	Same as Moderate

"Bottom Lines"

- The HYBRID TMDL as proposed is a blend of State and EPA adjusted allocations
 - this was necessary to fill gaps and to assure that the allocations will be achieved - more controls on regulated point sources were part of this equation;
 - EPA did not want to backstop; last resort based on deficient WIPs
- More work needs to be done by States and EPA to provide satisfactory assurance in all sectors
- Nonpoint source sectors, including agriculture, have considerable work to do to achieve load caps.
 - Point Sources are not alone in the enhanced effort. Significant funding through the Farm Bill needs to be targeted to accelerate work on the ground

Opportunities for Improvement

- EPA is providing the States with Opportunities to **enhance** their WIP submissions by the November 29 deadline when Final WIPs are due
 - EPA will again evaluate these to determine if the EPA Backstop allocations can be replaced with State commitments with equal or better reasonable assurance
 - 2011 provides another Opportunity in the Phase II WIPs to enhance the levels of commitment
- EPA will engage the jurisdictions in discussions during this time to share Best Practices from the WIPs across the States, share our own Guidance (such as the EO 502 guidance), and assist in any way that we can
- We need to move forward with the important job of restoring the Bay by our 2017 and 2025 deadlines

Draft TMDL outreach

- Draft TMDL Issued on Sept 24: 45 Day public comment period until November 8th
- 18 public meetings in six states, D.C.: Sept 29 – Nov 4, 2010
 - Webinars - one per state/D.C.
 - EPA presents draft TMDL, states also present WIPs
- Stakeholder outreach: in conjunction with public meetings, EPA will hold small meetings with leaders of environmental organizations, state legislators, local governments, agricultural community, homebuilders/developers, and wastewater groups