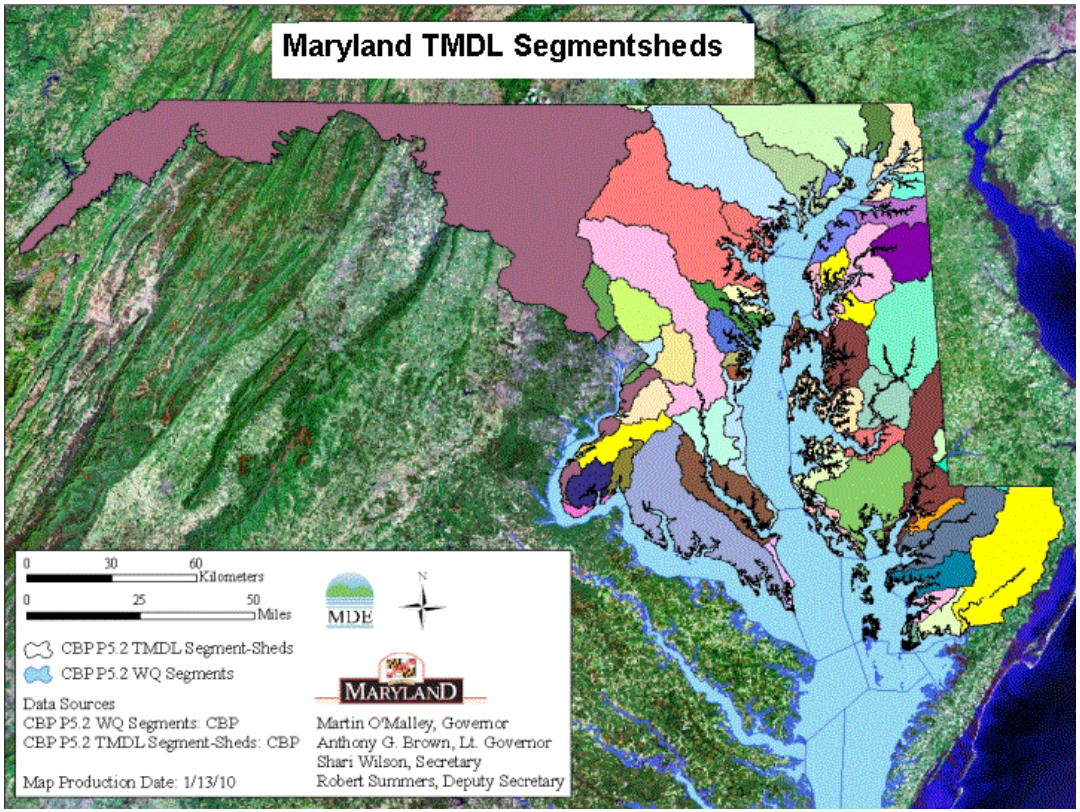
Phase II WIP Development



Potomac River Basin Drinking Water Source Protection Partnership Meeting

April 26th, 2011

Phase II: Bottom Line

To avoid getting lost in the details…

… lets boil it down to the basics:

- **Allocations:** For the major source sectors
- **2-Year Milestone Commitments for 2012 & 2013:**
  - Implementation Actions
  - Program Development Actions
- **2017 Interim Strategy:** Plausible actions for achieving 70% of the Final Target by 2017.
  - Implementation Actions
  - Program Development Actions

Break it Down by Sector

- **Agriculture:** Expanding & Adding Programs
- **Municipal Wastewater:**
  - Major ENR upgrades
  - Minor Upgrades? Some have been proposed.
- **Stormwater:**
  - Phase I & II MS4s: Target has been set in Phase I WIP
  - Opportunities for alternative reductions in near term
- **Septic Systems:**
  - An approach has been proposed in Phase I WIP
  - Consider alternative reductions
- **Other:** Industrial sources, Atmospheric…

Basic Expectations of WIP

- **Interim & Final Target Loads**
- **Strategies to Meet Targets**
  - Strategy Narrative
  - Load Reduction Analysis (& Gap Analysis)
  - Cost Estimate & Strategy to Address Funding Gap
  - Schedule for “Program Development” (Including Funding)
- **Contingency Strategies**
- **Tracking, Reporting and Verification**
- **Accounting for Growth in Loads**
- **Capacity Analysis & 2-Year Milestones**

Overview of Phase II Process

- Set up Local Teams
- Spring Activities before Numbers are Available*
- Orientation to Load Analysis Tools
- Assess Revised Phase I Allocations & Strategies
- Discuss & Refine Strategies and Target Loads
  - Reach Consensus, Use State Default or Hybrid
- Validate Revised Strategies via EPA Models
- Finish Writing Phase II Document
- Finalize 2-yr Milestones by end of 2011
- Public Review & Revise WIP (Fall of 2012)

* Described in Next Slide

Let's Get Tangible

New Numbers are not Ready until Late Spring…

… but there is Plenty to be Done.

Winter/Spring WIP Development Activities:

- Get Oriented (Study the Background Materials)
- Form Local Teams (Identify Local Primary Contacts)
- Local Governments: Setup Internal Coordination
- Determine "Current Capacity" for Implementation
- Begin Developing 2-Year Milestones
- Describe Tracking & Reporting (Current & Aspirations)
- Start WIP Report Documentation
- Prepare for Analyzing "the Numbers"
- Prepare for Trading and Offsetting Future Loads

Phase I Interim Targets

Nitrogen Reductions by 2017

Source	Reduction (lbs)	Primary Strategy
Agriculture	1,100,000	Many Practices
Wastewater	5,651,000	ENR Upgrades
Stormwater	448,000	Retrofit 20% - 30% of Developed land w/o Stormwater Controls
Septic Systems	290,000	Upgrade about 60% of systems in the Critical Area

Current Capacity Assessment

- Predict the pace of implementation in the future
- Based on “current resources” (capacity)
- Worksheets to Standardize Information Request:

Section I: Point Source Implementation Plan

WWTP	Water Shed		Permitted Flow	Current Avg Daily Flow	Existing Limits Nitrogen	Existing Limits Phosphorus	Strategies/Plans	Barriers/Solutions	Tech Assistances Needed	New Initiatives	Tracking & Monitoring	Stakeholder Roles In Implementations
Town - T County - C			MGD	MGD								
Millington	T C	Upper Chester	0.105									
Worton	C	Middle Chester (Morgan Creek)	0.15									
Kennedyville	C	Middle Chester (Morgan Creek)	0.06									
Tolchester	C	Still Pond-Fairlee	0.265									
Chestertown	T	Middle Chester	0.9									
Betterton	T	Sassafras River	0.2									

Section II D:
Watershed Restoration and Education Programs

Current Programs Implementing the Strategy:
The following table is adapted from “A Users Guide to Watershed Planning in Maryland” which provides a framework for how programs and policies could be aligned to protect and restore watersheds. In addition, this format also mirrors an approach outlined in Maryland Department of the Environment’s recently released TMDL Implementation Guidance. For more information
http://www.mde.state.md.us/Programs/WaterPrograms/TMDL/TMDL_implementation_2006_guidance_document.asp

Watershed Protection Tool
Stormwater Management for new development
Maintenance of existing stormwater infrastructure

Maryland's Stormwater Management Program
2009 Urban Acres Restored and Planned
as reported in
National Pollutant Discharge Elimination System (NPDES)
Municipal Separate Storm Sewer System Annual Reports

Permitted Jurisdictions			County and Municipal Baseline Impervious Acres					Chesapeake Bay Program Urban Acres (Impervious and Pervious)			Budget (Thousands)	
County Municipality	Permit Issuance	Total Land Area (Acres)	Untreated Impervious Area (Acres)*	Restored	Percent Restored	Restoration Required Thru Current Permit Term (Acres)	Restoration Required Thru Current Permit Term %	Total Urban Land in County*	Equivalent Urban Watershed Acres Restored**	Equivalent Urban Watershed Acres Restoration Permit Requirement	Operating	Capital
	11/8/2004	265,477	45,172	1,094	2.4%	4,517	10%	130,081	5,414	22,356	$9,894	$7,217
	1/3/2005	51,418	23,373	1,659	7.1%	4,675	20%	48,407	8,210	23,135	$9,442	$3,491
	6/15/2005	280,060	31,090	6,616	21.3%	3,109	10%	158,831	32,743	15,387	$7,646	$8,879
	7/5/2001	324,552	25,800	1,007	3.9%	0	0%	155,518	4,983	0	$7,933	$6,021
	10/13/2004	311,680	35,712	661	1.9%	3,571	10%	153,107	3,271	17,674	$24,415	$17,816
	7/14/2005	289,280	11,344	669	5.9%	1,134	10%	71,451	3,308	5,614	$344	$2,776
	7/31/2002	289,011	2,607	45	1.7%	0	0%	47,225	223	0	$355	$472
	3/11/2002	424,141	6,725	729	10.8%	0	0%	87,435	3,608	0	$643	$247
	11/1/2004	286,490	8,308	256	3.1%	831	10%	74,393	1,267	4,112	$1,300	$1,600
	6/20/2005	160,640	11,704	255	2.2%	1,170	10%	72,459	1,262	5,792	$3,049	$2,682
	10/21/2005	incorporated	20,720	302	1.5%	414	2%	incorporated	1,494	2,051	$2,865	$2,865
Total:		2,682,748	201,835	13,292	6.6%	19,422	9.6%	998,907	65,784	96,122	$67,886	$54,065

Example: Stormwater

- Phase I MS4 Jurisdiction Retrofit Goals

Maryland's Stormwater Management Program
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[illegible]	11/8/2004	265,477	45,17[illegible]	1,094	2.4%	4,517	10%	130,081	5,414	22,356	$9,894	$7,217
[illegible]	1/3/2005	51,418	23,37[illegible]	1,659	7.1%	4,675	20%	48,407	8,210	23,135	$9,442	$3,491
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Current Capacity: Stormwater

Example Estimate:
Average Annual Pace of Implementation

2007 622 acres
2008 930 acres
2009 + 712 acres
Total 2,274 acres / 3 yrs =

~ 758 ac/year

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Total:										96,122	$67,886	$54,065

Other Considerations:

Current Capital Budget
Status of Projects in the Pipeline
Local Knowledge

2-Year Milestone: Stormwater

Example Estimate:
Average Annual Pace of Implementation

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2008 930 acres
2009 + 712 acres
Total 2,274 acres / 3 yrs =

~ 758 ac/year

Initial Estimate of 2-Year Milestone

Permitted Jurisdict									rban Acres ious)	Budget (Thousands)	
County Municipality	Permit Issuance								Equivalent Urban Watershed Acres Restoration Permit Requirement	Operating	Capital
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	1/3/2005								23,135	$9,442	$3,491
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Total:										96,122	$67,886	$54,065

Other Considerations:

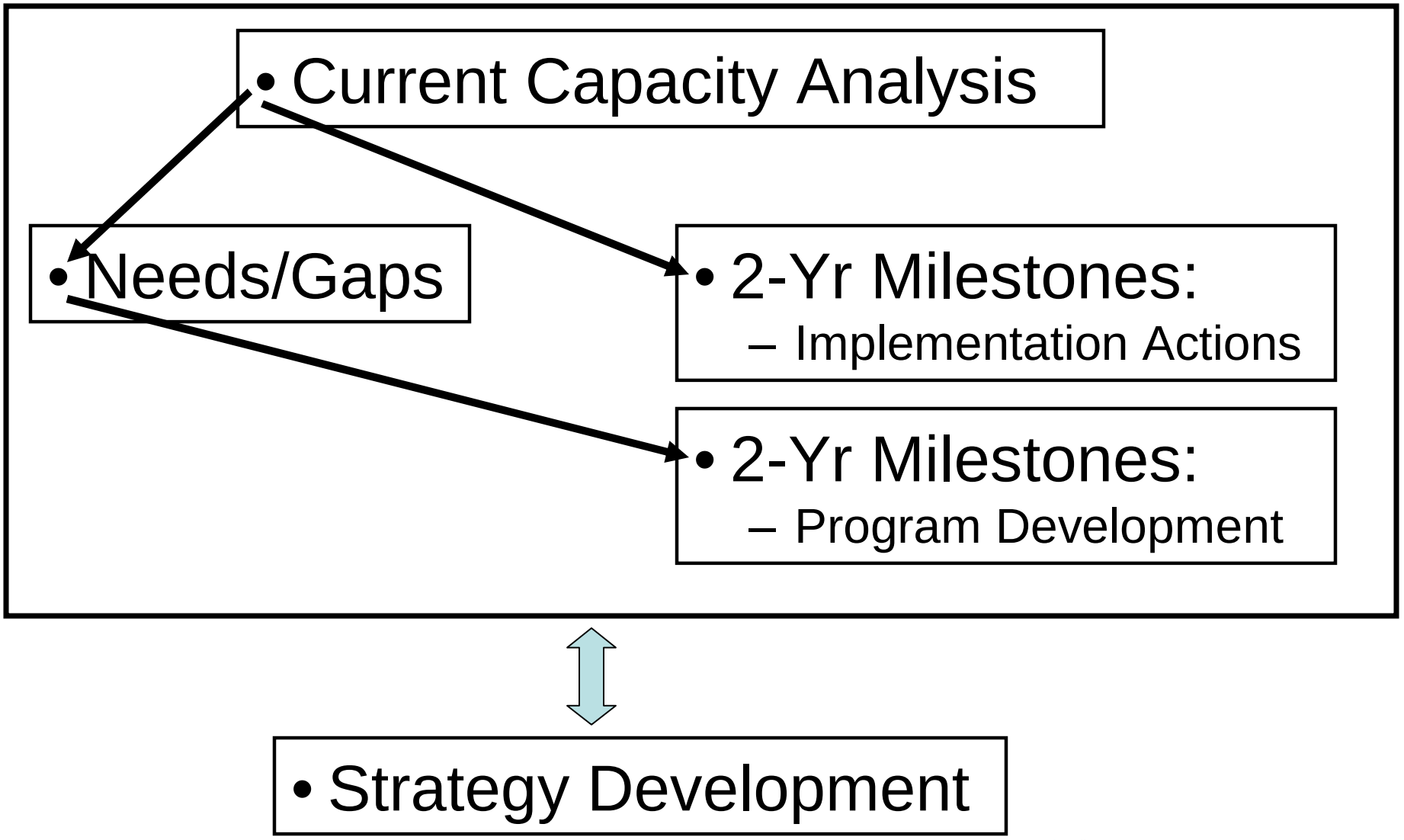
Current Capital Budget
Status of Projects in the Pipeline
Local Knowledge

Current Capacity: Other Aspects

- **Legal & Regulatory**
- **Financial**
- **Staffing**
- **Technical**
- **Programmatic**

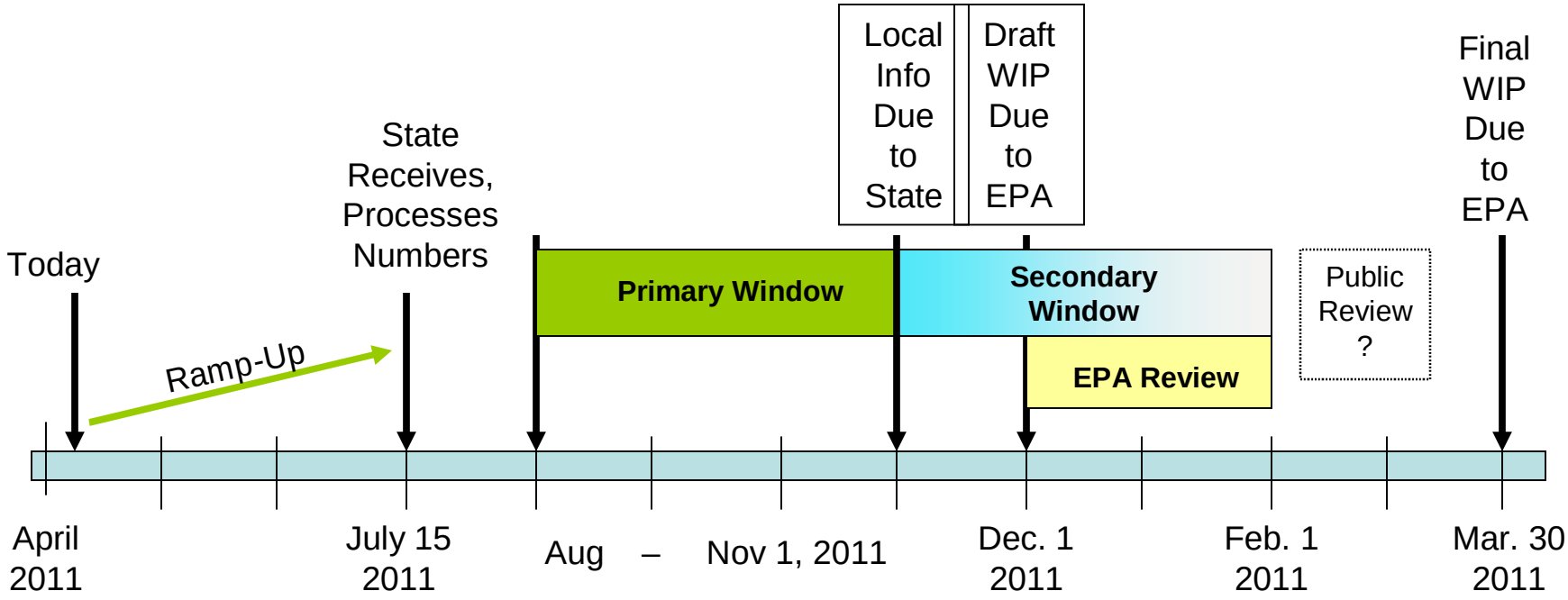
- Narratives:
  - Current Programs
  - Identify Barriers, Needs, Gaps

Connecting the Dots



The Phase II Schedule

- The schedule is Tighter than Desired
- We will Need to Simplify where Possible



What is a "Phase II WIP" ?

- EPA requests One Phase II WIP from Maryland
- Basic Composition of Phase II WIP Document:
  - Statewide Summary
  - County-scale Chapters
- Jurisdictions May Develop More In-depth Plans:
  - Included with WIP as an Appendix, or
  - Referenced outside of the WIP:
    - Locally maintained document
    - Web link to on-going local watershed planning

2-Year Milestones

- 2013 Milestones are a Key Focus:
  - Near-Term Tangible Commitments
  - Basis of the First EPA Evaluation (Not Counting Delivery of WIP)
  - Many Local Team members can develop these now
- Two Categories of Milestone Commitments:
  - Accelerated Implementation Actions
  - Program Enhancement Actions (these Support WIP Strategies)
- Give Advanced Notice to Senior Local Officials:
  - Begin Developing and Elevating Milestone Options
  - Schedule Future Briefings of Elected Officials if Necessary

MD Assessment Scenario Tool

- Modeling
  - Use reduced form model to produce preliminary results
  - Consistent with EPA Bay TMDL models
  - Stakeholder involvement in scenario development
  - Iterative process
- Information Management System to
  - Facilitate consistent and transparent approach
  - Combine WIP Team scenarios for direct input into EPA Bay Model

Next Steps

Month	Activities
March	•Next Local Team Meetings: – Affirm Local Team Composition – Follow-up Introductory Materials – Initial Responses to Info. Request – Start Documenting Tracking Systems
April	•Next Local Team Meetings: – Start Working on the Current Capacity Request Due in May – Start Documenting Tracking Systems

A Word on Agriculture

Agriculture's Role in WIPII

- Development & Implementation of Agricultural Component of WIPII
- Assist County Government in Development & Implementation of the Urban Component
  - E & S and Environmental Site Design
- Work with planning office on Smart Growth policy
  - Trading & Offsets

Development & Implementation of Agricultural Component of WIPII

- SCD assigned county load allocation for agriculture
- Develop 2 year implementation goals
- Utilize Ag workgroups
- Report plan back to county WIP Teams
- Already developed in MOUs for 2009 & 2012
- Tracked & reported through Conservation Tracker

- Participants
  - SCD
  - Natural Resources Conservation Service
  - UMD Extension
  - Agribusiness
  - Farm Service Agency
  - Farm Bureau
  - Farmers
  - County Agricultural/Environmental Planner
  - NGOs

Assist County in the Development & Implementation of Urban Component (SCD Role)

- Districts delegated E & S review
- Expanded role to provide pre-construction conferences
- New stormwater regulation require Environmental Site Design

Work with Planning Office on Smart Growth Policy

- Districts provide counties, municipalities and the developers the access to farmers and landowners willing to trade and have offsets
- Districts provide verification and inspection of offsets
- Developers will need permanent offsets that require easements
- District funding to develop and implement program

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