Pennsylvania’s Phase III Watershed Implementation Plan

Kick-Off & Listening Session
June 5, 2017
Agenda -- Background to Promote Discussion Today

• Why Are We Doing This?
• Pennsylvania Allocations and Progress Numbers
• Monitoring Trends
• Bay Program Midpoint Assessment
• Game Plan for the Phase 3 WIP Development
• Federal Clean Water Act, Federal court orders and regulations
  • 2010 Chesapeake Bay Total Maximum Daily Load (TMDL) requires annual loading reductions of nitrogen, phosphorus and sediment
  • Requires the return of Chesapeake Bay waters to Maryland state water quality standards by 2025

• Pennsylvania’s Clean Stream Law

• Article 1, Section 27, Pennsylvania Constitution
  • The people have the right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment.
  • As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.
PA encompasses 35.2% of the Bay watershed -- that’s 14,358,159 acres.

Four PA watersheds
- Susquehanna River (13,298,520 acres, 32.6%)
- Potomac River (1,012,222 acres, 2.5%)
- Eastern Shore (40,262 acres, 0.1%)
- Western Shore (7,155 acres, 0.02%)
• What is a Sector?

• In the TMDL, pollutant sources were divided to efficiently reach facilities with similar operations, processes or practices
  • Point Sources = *Wastewater* (Treatment Plants, Combined Sewer Overflows)
  • Nonpoint Sources = Pollution from rainfall and stormwater runoff
    • *Agriculture* – farms or ranches that grow and harvest crops and animals for production
    • *Urban Runoff* – land area that has been developed, or is planned for development (ex. streets and parking lots)
  • *Forest* – areas covered in trees

Agriculture: 45%
Urban Runoff: 11%
Wastewater+CSO: 28%
Septic: 1%
Forest+: 15%

113 M lbs.
(11 M lbs. reduced 1985-2015)

Where will the remaining Nitrogen reductions* come from?
*Based on jurisdictions’ Phase II WIPs

2015

78% Agriculture
20% Urban
2% Septic

79 M lbs.
(34 M lbs. to reduce 2015-2025)

2025
Pennsylvania Phosphorus Loads: 2015-2025

- Agriculture
- Urban Runoff
- Wastewater+CSO
- Forest+

**2015**

- **4.3 M lbs.**
  - (1.7 M lbs. reduced 1985-2015)

**2025**

- **3.6 M lbs.**
  - (0.7 M lbs. to reduce 2015-2025)

Where will the remaining Phosphorus reductions* come from?
*Based on jurisdictions’ Phase II WIPs

- **76% Agriculture**
- **24% Urban**
Pennsylvania Sediment Loads: 2015-2025

2,477 M lbs.
(540 M lbs. reduced 1985-2015)

Where will the remaining Sediment reductions* come from?
*Based on jurisdictions’ Phase II WIPs

2015

Agriculture Urban Runoff Wastewater+CSO Forest+
45% 11% 28% 1% 15%

1,946 M lbs.
(531 M lbs. to reduce 2015-2025)

70% Agriculture 30% Urban

2025
• Needs to reduce 19 million lbs. nitrogen by 2017 and a total of 34 million lbs. by 2025

• Responsible for 69 percent of remaining basinwide nitrogen load reductions by 2025

• Agriculture will likely be responsible for more than 80 percent of these nitrogen reductions by 2025

• How do we put the technical assistance/compliance infrastructure and cost share funding in place to deliver on these needed reductions
Total Nitrogen per Acre Loads and Trends: 2005-2014

Chesapeake Watershed
- Improving Trends: 54%
- Degrading Trends: 27%
- No Trend: 19%

PA: Majority improving
- Improving: 14
- Degrading: 3
- No change: 1
Total Phosphorus per Acre Loads and Trends: 2005-2014

Loads per acre
- Above average in PA
- Eastern part of basin

Bay Watershed trends:
- Improving Trends: 68%
- Degrading Trends: 20%
- No Trend: 12%

PA trends: Majority improving
- Improving: 14
- Degrading: 3
- No change: 1
Total Suspended Sediment per Acre Loads and Trends: 2005-2014

Bay Watershed trends:
• Improving Trends: 47%
• Degrading Trends: 30%
• No Trend: 23%

PA trends: Majority improving
• Improving: 9
• Degrading: 3
• No change: 6
EPA Baywide Expectations—Top 4

• Programmatic and numeric implementation commitments for 2018-2025

• Strategies for engagement of local, regional and federal partners in implementation

• Account for changed conditions: climate change, Conowingo Dam infill, growth

• Develop, implement local planning goals below the state-major basin scales
EPA Pennsylvania Expectations

- Programmatic, policy, legislative and regulatory changes needed
- Demonstration of the staff, partnerships and financial resources needed
- A dedicated and targeted annual state cost-share program
- Next steps as we move forward:
  - Evaluate the expectations and define how the Commonwealth can meet these expectations or
  - Define a viable alternative to their expectations that achieves the same end result.
- EPA Actions
  - Continue to target federal compliance and enforcement actions
  - Direct or withhold federal funding
  - Establish finer scale load allocations through a Pennsylvania-specific amendment to the TMDL
  - Require additional reductions from point sources
  - Promulgate nitrogen and phosphorus numeric water quality standards for Pennsylvania streams and rivers
Midpoint Assessment

- Data Collection & Analysis
  - Water Quality Monitoring and Trend Analysis
  - Conowingo Dam
  - Climate Change
  - Sector Growth

- Policy and Methodology Decisions – Planning Targets
  - By state, basin
  - Equity vs Cost-effectiveness

- Model Calibration
  - Expert Panel Reports – BMP Efficiencies
  - Historical Data Cleanup
Midpoint Assessment Schedule

- **June-July: 2017**: Partnership’s review of models
- **October 2017**: Draft Phase III WIP planning targets
  - Resolution of Issues around Conowingo, Climate Change, Sector Growth
- **October - Feb 2018**: Partnership review of targets
- **Feb 2018**: Final Phase III WIP planning targets
- **Dec 2018**: Draft Phase III WIPs shared for partner, stakeholder review
- **Mar 2019**: Final Phase III WIPs due
Phase 3 Watershed Implementation Plan

• Stakeholder Input and Outreach
  • Steering Committee/Workgroups
  • Website
  • Communications Strategy Being Developed:
    • One-Day Kick-Off Conference, Listening Sessions, Public Comment

• Planning Targets & Implementation
  • Sector Specific
  • Local Area Goals
  • Priority Areas/Watersheds

• Measurable Outputs, Milestones

• Emphasis on Local Water Quality, Local Goals, Local Benefits
Local Planning Goals

• Jurisdictional Boundaries (County, Township, Borough, Conservation District)
• Federal or State Facilities
• Regional Entity Boundaries (River Basin Commission, Planning Commission)
• Watershed or sub-watershed
• “Segment-shed” as defined in the TMDL
• Area with a defined need for pollutant reduction (ex. MS4s)
• Targeted area with high pollutant loadings
Phase 3 WIP Schedule

- April, May, 2017 – Form Steering Committee and Workgroups
  - June 5, 2017 – Phase 3 WIP Kick-Off Conference, Radisson Harrisburg
  - June 3 – July 7, 2017 – Follow-up Written Comment Response to Conference
- July 2017 through October 2017
  - Bay Program Partnership Works Through Issues
  - Workgroups Formed, Convened
  - Comments Compiled, Additional Information and Data Compiled
- October 2017 through May 2018
  - Workgroups and Steering Committee develop the WIP
  - Additional Outreach Around Development of Local Planning Goals/Sector Specific Plans
- August/September 2018 – Public Comment Period of Draft Phase 3 WIP
- December 2018 – Submit to EPA for Partnership Review
- January 2019 – Revise in Response to Partnership Review
- March 2019 – Submit Final Phase 3 WIP
• Chesapeake Bay Program Website
  • [http://www.chesapeakebay.net](http://www.chesapeakebay.net)
• Chesapeake Bay Assessment Scenario Tool - CAST
  • [http://www.casttool.org](http://www.casttool.org) – County level scenario calculator
• Chesapeake Bay Facility Assessment Scenario Tool - BayFAST
  • [http://www.bayfast.org](http://www.bayfast.org) – Facility level scenario calculator
• Phase 6 Model Data Visualization Tool – New Beta 4 Run
  • [https://mpa.chesapeakebay.net/Phase6DataVisualization.html](https://mpa.chesapeakebay.net/Phase6DataVisualization.html)
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DEP Chesapeake Bay Website:
http://www.dep.pa.gov/ChesapeakeBay
What initiatives and collaborations in these sectors would help us achieve the goals of the Phase 3 WIP for Pennsylvania?

➢ What key elements need to be included for this effort to be a success? What priority issues MUST be addressed in the Phase 3 WIP for me to agree the plan would be implementable?

➢ Is there a particular initiative, action, partnership, training that would aid this effort?

➢ When 2025 arrives, what measurable outcome do I want to see us achieve that would make me agree that this effort was a success?

➢ Are there possibilities for continuing and enhancing current projects or initiatives?

➢ Aside from today, what other ways can the Phase 3 WIP Steering Committee ensure that when asked you can say, “Yes, I have been heard.”