Update on Conowingo Report Public Release & Review and Modeling WG Next Steps

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Regulatory Actions

- FERC Environmental Impact Statement:
  - Public Review Conducted July 30 – September 29, 2014
- 401 Water Quality Certification by Maryland:
  - MDE intends to deny WQC due to insufficient information.
  - Public Hearing: January 7, 2015 at MDE' Baltimore Office.
  - Public Comments Due: January 7, 2015
  - Final decision by MDE due January 2015.

Lower Susquehanna River Watershed Assessment (LSRWA):

- STAC Review – August 2014
- Media call November 12, 2014
- November 13, 2014: Available for Public Comment.
- December 9, 2014: Public Meeting/Webinar.
- Comment period open until Jan 9, 2015
- http://mddnr.chesapeakebay.net/LSRWA/report.cfm

The Assessment

- Found that the Dam's loss of ability to trap the sediment affects the health of the Bay.

- Found that the nutrients that enter the river upstream and attach to particles of sediment pose a greater threat than the sediment alone, and that a large majority of the pollution to the Bay from the Susquehanna River is generated from the upstream watershed, or drainage area, and not from the sediment collected at the Dam.

- Found that recovering storage volume though dredging or other methods is possible, but the ecosystem benefits appear to be minimal and short-lived and costs are high,

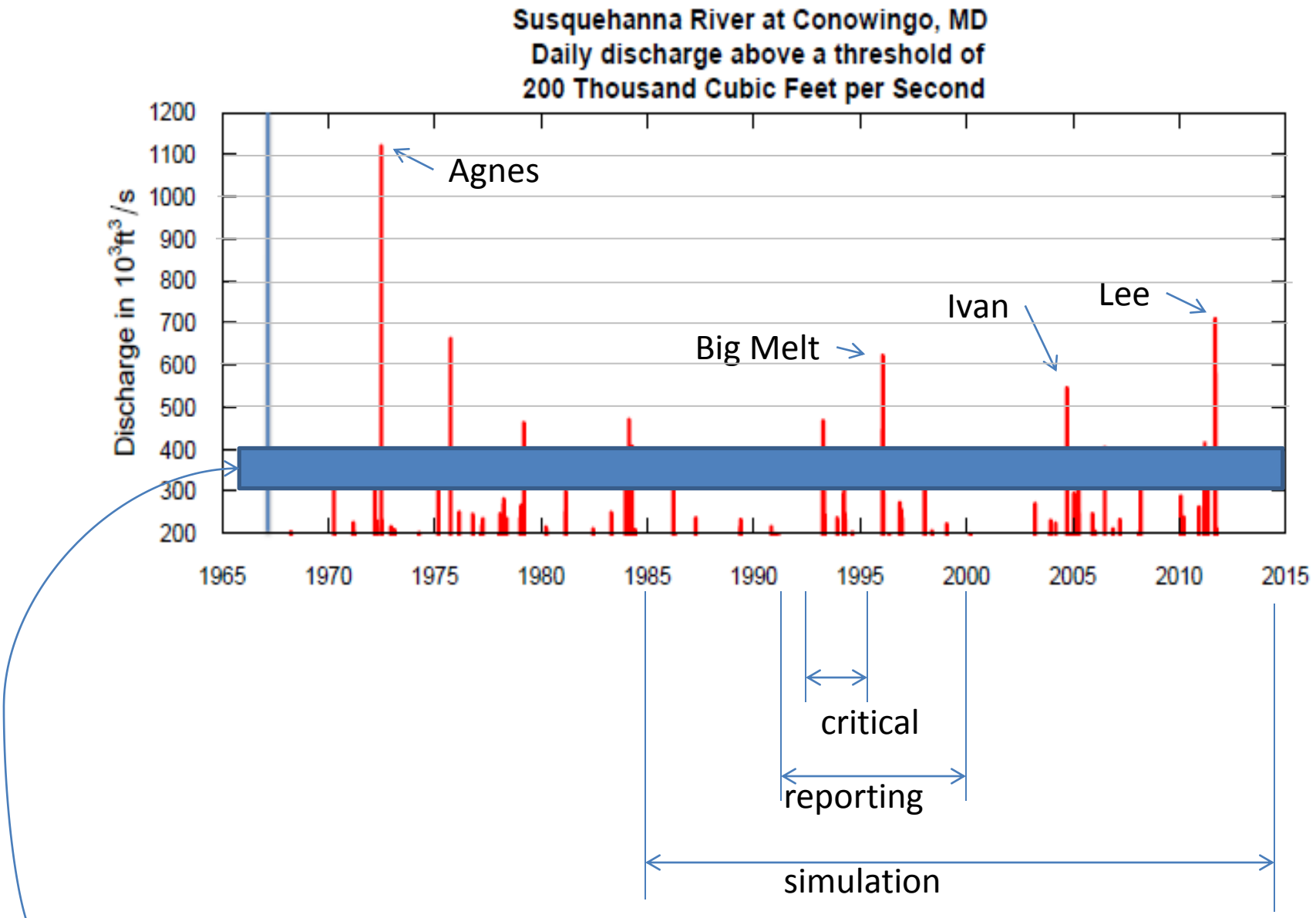
- Suggested that the findings, along with additional, enhanced monitoring, will provide key information in assessing progress in meeting the requirements of the federal pollution limits for the Chesapeake Bay.

Modeling WG Charge

- Better Representation of Reservoirs
- Conowingo - Develop, assess, and implement options for improving the simulation of the Lower Susquehanna Reservoirs based on the findings of the Lower Susquehanna River Watershed Assessment (LSRWA), led by the Corps of Engineers and MDE.

Building a Better Simulation

- Current uncertainty
  - The nutrient concentrations during scour events, which is dependent upon the nutrient content in bottom sediment.
  - The biological availability of scoured nutrients is a factor contributing to uncertainly.
- Watershed model
  - Simulate time variable infill
  - Looking to USGS for updated information
  - Additional monitoring/modeling for moderate flows
- Water Quality Sediment Transport Model
  - Additional monitoring to be inform bioreactivity of scoured sediment and associated nutrients



Scour threshold is between 300,000 to 400,000 cfs

Modeling WG Next Steps

- Need the monitoring information by the end of 2015 to update the models
- summer 2015 - Revisit watershed model calibration method with support from USGS
- Late 2015 - Identify scenarios to be used for simulating infill condition consistent with Bay TMDL assumptions (e.g. critical period)
- Early 2016 – Incorporate monitoring into WQSTM
- 2017 – Application of model