



The Chesapeake Bay TMDL
A Brief History

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The Chesapeake Bay Watershed

The Chesapeake Bay is North America's largest estuary
world's third largest

The watershed covers 64,000 square miles


Home to about 17 million people

The Bay has more than 11,600 miles of shoreline




Bay Timeline

| | |
|------|---|
| 1972 | The Clean Water Act sets a goal of making the nation's waterways, including the Chesapeake Bay, "fishable and swimmable" by 1983. |
| 1979 | The deadline for states to create regulated pollution caps for waterways that appear on a federal list of "impaired waters" is unmet. |
| 1983 | EPA signs first Chesapeake Bay agreement with Maryland, Virginia, Pennsylvania, District of Columbia. |
| 1987 | Signatories strengthen the 1983 agreement with a commitment to reduce nitrogen pollution by 40 percent by 2000. The goal is not met. |
| 1999 | Lawsuit filed by the American Littoral Society, and American Canoe Association in VA. Results in a Consent Decree requiring the establishment of TMDLs. |
| 2000 | EPA and the Bay states sign the Chesapeake 2000 agreement. It re-affirms the 40 percent reduction goal of 1987 and promises that the Bay will be restored and off EPA's "impaired waters" list by 2010. |
| 2007 | A report from the EPA's Office of the Inspector General says that not only will the EPA's Bay restoration efforts miss goal set for 2010, but that pollution trends from new construction are increasing. |
| 2010 | State Watershed Implementation Plans (WIPs) are finalized and TMDL is established. |



Federal Clean Water Act 101




Required Water Quality Standards "set the bar" for water quality.

Adding more people, livestock, development, etc. all add to the pollution load and make it more difficult to reach the Standards.

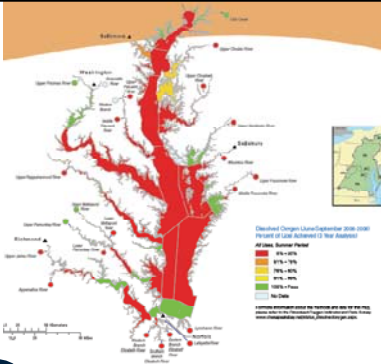
Failure to meet the Standards results in an "Impaired designation and triggers a Total Maximum Daily Load (TMDL).


The TMDL is a "pollution diet" for a watershed.



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Dissolved Oxygen Impairment in the Chesapeake Bay

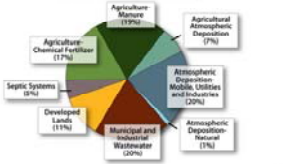




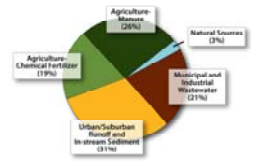
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The Bay Impairment is Caused By:

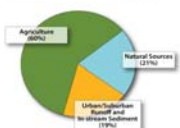
Sources of Nitrogen to the Bay




Sources of Phosphorus to the Bay

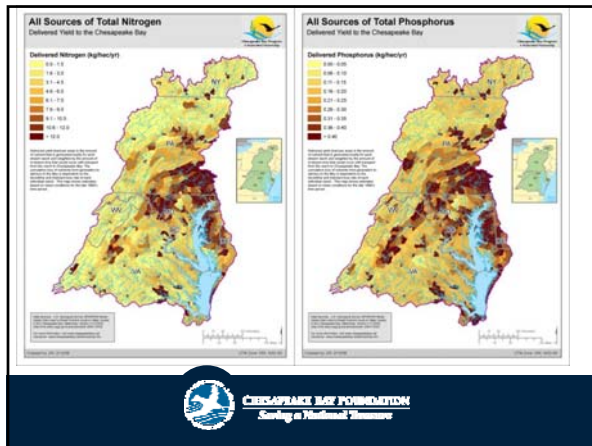


Sources of Sediment to the Bay





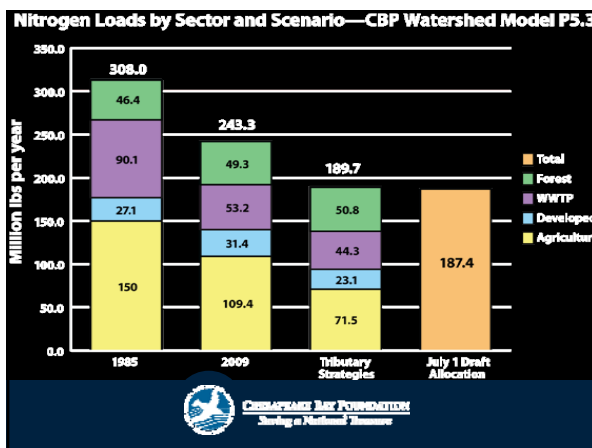
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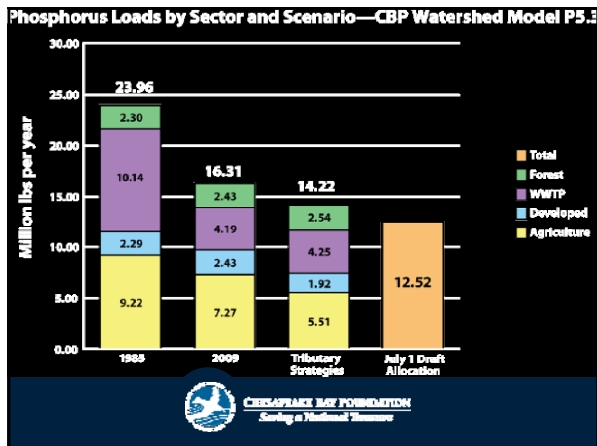


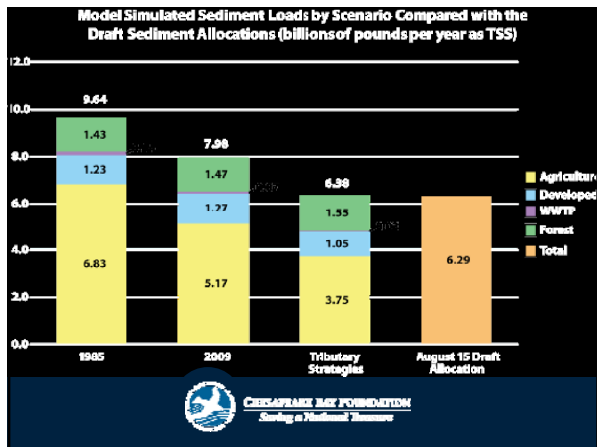
The Chesapeake 2000 Agreement

- Based on the 1999 Court case, a TMDL should have been established for the Chesapeake Bay
- Pennsylvania, Maryland, Virginia, Washington DC, and the EPA agreed to a 10 year voluntary strategy in an attempt to address the impairment without the federal regulatory changes associated with a TMDL.
- The Chesapeake Bay Model was utilized to develop agreed upon pollution load reduction goals for each jurisdiction.
- While significant progress was made, the political will did not exist to require or fund the necessary pollution reductions.
- In 2010 EPA began to move forward with the TMDL process.

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Solving a National Problem







Addresses State and Local Issues

- PA has over 19,200 miles of impaired waters**
- Over half of our farms don't have required conservation plans and manure plans**
- 56% of the population relies on surface water for daily drinking**
- Every \$1 invested in clean water saves \$27 in treatment costs**