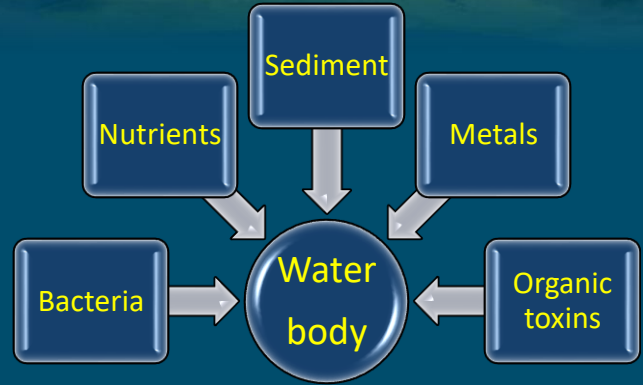


The Chesapeake Bay "Pollution Diet"

Total Maximum Daily Load (TMDL), also known as a "pollution diet", is the maximum amount of pollutants a waterbody can receive while still meeting water quality standards.

TMDLs are important because it creates a link between the 1) waterbody use impairment, 2) causes of impairment (what are the pollutants) and 3) load reductions needed to meet water quality standards.



Chesapeake Bay TMDL

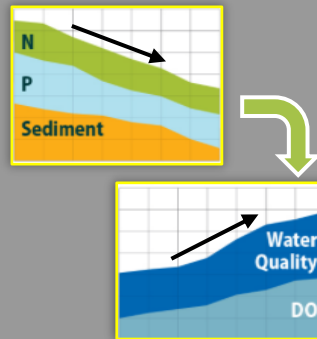
- ✓ Established in 2010, covers 64,000 square miles of watershed area.
- ✓ Prompted by continued poor water quality despite years of restoration efforts.



- ✓ Requires extensive collaboration of 7 Bay watershed jurisdictions: NY, PA, MD, DE, DC, WV and VA.



- ✓ "Pollution diet" sets limits on nitrogen, phosphorus and sediment, which are the leading causes of the Bay's poor health.



- ✓ Designed to ensure that all pollution control measures are in place by 2025.
- ✓ Achieve 60% of reductions by 2017.



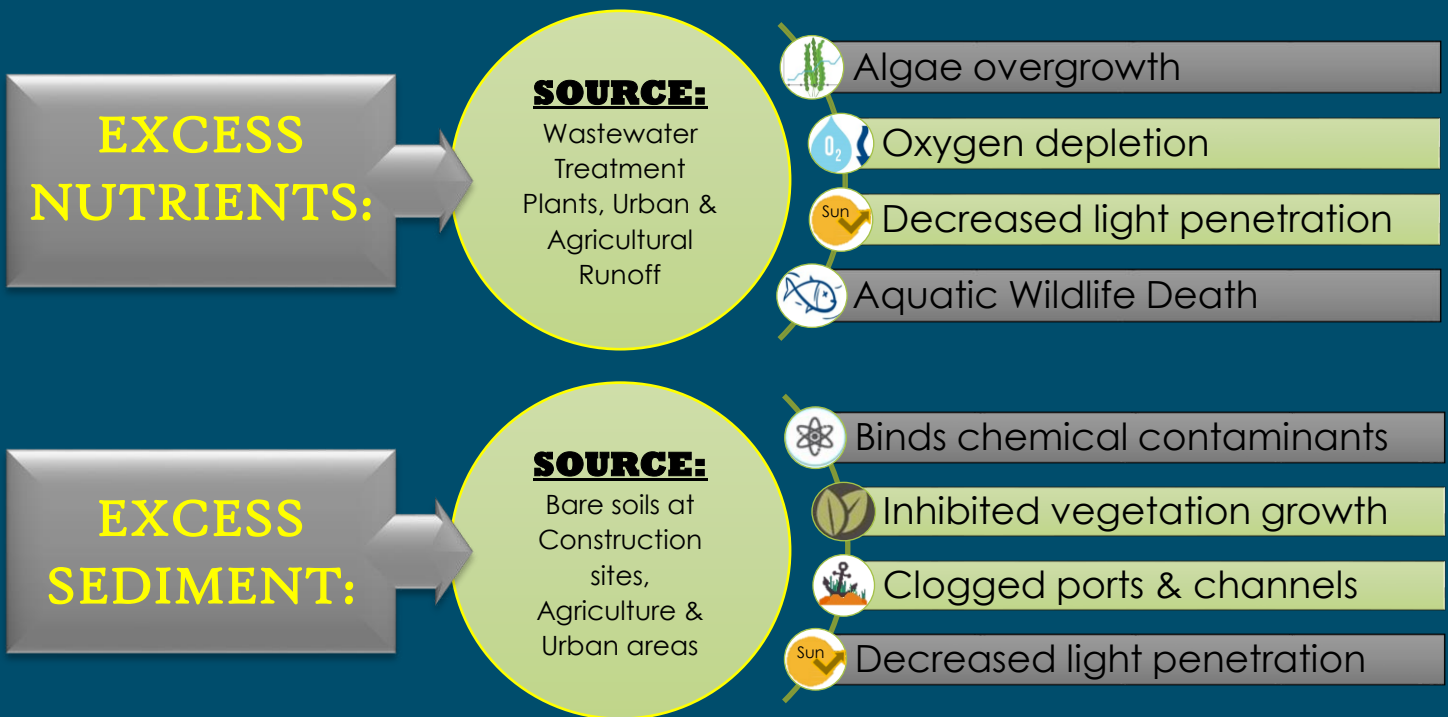
Even though TMDLs are required for every state, the Chesapeake Bay TMDL is the **LARGEST AND MOST COMPLEX CLEANUP PLAN** ever developed by the U.S. Environmental Protection Agency!

WHAT ARE THE IMPACTS?

The Bay's TMDL is based largely upon **Watershed Implementation Plans** (WIPs) that detail how the pollution reductions will be achieved.

According to the **2017 Midpoint Analysis** (assessed the progress of reduction plans), Virginia achieved its 2017 statewide 60% reduction goal targets for nitrogen and phosphorus. However, **sediment** is still finding its way into the Bay in excessive amounts.

Additional work is needed to achieve our goals for reducing sediment!



“Working together with our partners at the state and local levels has led to considerable progress toward restoring water quality in the Chesapeake Bay... As we move into the next phase, we’re confident we will optimize strategies that will ultimately achieve the TMDL goals.”

– Cosmo Servidio, EPA Regional Administrator

NASA LaRC is located on the small coastal basin of the **Back River**, a tidal estuary of the Chesapeake Bay.

This means that LaRC is required to participate in the TMDL process. The Center is committed to improving the water quality of local waterbodies. This is achieved by employing **POLLUTION CONTROL MEASURES** all around the Center.

MAKING THE DIFFERENCE AT LaRC

CONSTRUCTION SITES at LaRC reduce their impact by implementing **Erosion and Sediment Control** measures. It's important that these controls are set in place correctly to keep disturbed soil on-site and out of our local waters. Below are some examples:

Erosion Control:

- ✓ 1st Line of Defense
- ✓ Inexpensive
- ✓ Easy to install

Soil is stabilized by covering with:

- Grass
- Mulch
- Gravel



Sediment Control:

- ✓ 2nd Line of Defense
- ✓ Higher cost
- ✓ Requires maintenance

Sediment is kept on-site by:

- Silt fences
- Inlet protection
- Straw bales



Many pollutants find their way into the water through **RUNOFF** which occurs when water (from rain or snow melt) can't soak into the ground and moves across impermeable surfaces, collecting chemicals, soil and trash. At LaRC, **Best Management Practices (BMPs)** are implemented to treat and infiltrate runoff before it affects local bodies of water.

BMPs implemented at LaRC:

- Transitioning unused impervious surfaces back to green spaces
- Using tree box filters to reduce pollutants in stormwater
- Pervious surfaces that allow water to percolate through
- Riparian buffers and rain gardens that retain runoff and filter out pollutants



Clean water is the foundation for healthy communities and aquatic habitats across the region. Being able to reduce these pollutants and meet water quality standards is critical to the Center, and ultimately, the Chesapeake Bay. **IF YOU ARE EVER ON CENTER AND SEE SEDIMENT TRACKING ON ROADS OR MUDDY WATER FLOWING TO A DITCH, STORM INLET, OR CONVEYANCE CHANNEL, PLEASE CONTACT SPEEB IMMEDIATELY AT 4-7517 OR 4-7243.**