

THE Chesapeake Bay

NASA Langley is located along the Back River, which flows directly into the Chesapeake Bay. The Chesapeake Bay, the largest estuary in the United States, stretches approximately 200 miles from Maryland to Norfolk, Virginia. It is a vital ecological and economic resource but has suffered from significant environmental degradation due to excess nutrients and sediment from various sources such as agricultural operations, urban and suburban stormwater, wastewater, and airborne contaminants.

As a result, in 2010, the Environmental Protection Agency (EPA) established the Chesapeake Bay Total Maximum Daily Load (TMDL). The TMDL identifies the overall amount of nitrogen, phosphorus, and sediment that can be present in the Chesapeake Bay to maintain water quality standards.

The TMDL set the Chesapeake Bay watershed (New York, Pennsylvania, West Virginia, Maryland, Delaware, Virginia, and the District of Columbia) limits to:

185.9

**million pounds of
NITROGEN**



12.5

**million pounds of
PHOSPHORUS**



6.45

**million pounds of
SEDIMENT**



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To guide these pollution reductions, the Chesapeake Clean Water Blueprint was established, requiring all Bay jurisdictions to implement the practices necessary to achieve pollution limits by 2025. While the sediment goal was achieved ahead of schedule, and phosphorus reductions are more than 90% complete, strong and ongoing dedication remains essential to reaching the remaining goals and improving the overall health of the Bay.

NASA LANGLEY

At NASA Langley, we help Virginia reach the state's TMDL goals by implementing Best Management Practices (BMPs) and ensuring compliance with permit requirements to maintain high water quality standards. Examples of BMPs include reforestation, green infrastructure, sediment control, and spill response.

This means that when modifying operations or planning new projects, the Center thinks about how to minimize the discharge of pollutants into local waterways. These efforts are continuously monitored and guided by the Center's Municipal Separate Storm Sewer (MS4) Permit.



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AT HOME

You can help meet TMDL goals this planting season by:

- **Testing Your Soil**
 - Test your soil nitrogen levels before adding fertilizer. Tests can be found at your local garden center.
- **Planting Native Species**
 - Native grasses and plants do not require frequent water or fertilizing.
- **Reducing Use of Pesticides/Herbicides**
 - These toxic chemicals are eventually transported into our local waterways.
- **Collecting Rainwater**
 - Reduce runoff by collecting rainwater to use for your garden later.
- **Using Permeable Materials**
 - These materials allow for water to soak the ground instead of causing runoff.

The Environmental Management Office is here to support your projects. For any questions or assistance, please contact:

Ande Remington (757.864.8332) or
Kattie Iwanski (757.864.6091)

In an emergency or spill, always call 911 (from a Center phone) or 757.864.2222 (from a cell phone).

The information in this article is being shared in accordance with Langley's Municipal Separate Storm Sewer System (MS4) permit requirements.