

Reducing Urban Wildlife Pollutants: Back River TMDL

The Back River Watershed:

The Back River is a key estuarine tributary within the Chesapeake Bay watershed, a 64,000-square-mile region critical to marine habitats, commercial fishing, and recreation. NASA Langley's untreated stormwater flows directly into the Back River, then into the Chesapeake Bay and Atlantic Ocean, making LaRC a crucial partner in preserving water quality.

The Back River is classified as "impaired" due to high levels of fecal coliform bacteria. It is vital to address local impacts to safeguard public health and ensure the long-term health of this river and its connected waterways and communities.

State and federal regulators protect public health and impaired waterways using Total Maximum Daily Loads (TMDLs), which set shared pollutant limits for all local contributors to reduce contaminants collectively. When the Back River TMDL was established in 2014 under EPA approval, NASA Langley developed an Action Plan to reduce bacteria and contaminants entering the river.

Where are these bacteria coming from?

The Back River is impacted by fecal coliform bacteria, which causes illness in humans and wildlife, makes local shellfish unsafe, and prevents swimming. Regular monitoring measures these contaminants to assess water safety. These bacteria originate in warm-blooded animals' intestines and spread through their waste.

Langley's bacterial contributions come exclusively from wildlife waste, not human sources or domestic animals. When it rains, stormwater carries wildlife waste into the Back River. LaRC's MS4 permit requires management of these pollutant sources through:

- Cleaning out the Center's stormwater drains and ditches
- Discouraging nesting of Canadian Geese and other birds through prohibiting storm water retention practices such as ponds
- Employee education and awareness



Reducing Urban Wildlife Pollutants: Back River TMDL

What can I do?

As personnel numbers onsite increase in 2025, the Environmental Management Office appreciates your efforts in protecting the Back River, public health, and local wildlife.

At LaRC:

Everyone at the Center plays a role in supporting the Back River TMDL through awareness and understanding of the Action Plan. Key actions include:

- Avoid feeding wildlife (deer, geese, feral cats) to protect their health, personnel safety, and the Back River TMDL.
- Do not encourage wildlife presence in any way.
- Report injured, stray, or feral animals to the LaRC Environmental or Security offices.
- Keep picnic areas free of litter and food.
- Clean up after outdoor events.
- Ensure dumpsters and food sources are properly closed.

At Home:

Whether you live in the Back River area or elsewhere, you can help protect Virginia's waterways and the Chesapeake Bay with these simple actions:

- Do not feed wildlife for their safety and yours.
- Clean up after your pets, whether on walks, in dog parks, or at home.
- Maintain your septic system to prevent leaks.
- Protect your sewer system by avoiding flushing non-flushable items (like wipes).
- Keep chemicals (pesticides, fertilizers, bleach, cleaners) out of septic and storm drains.

For more information, the TMDL Action Plan is on the environmental [website](#).

For Water Quality questions or concerns contact:

Ande Remington: 757.864.8332, ande.remington@nasa.gov

Kattie Iwanski: 757.864.6091, kattie.iwanski@nasa.gov

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

