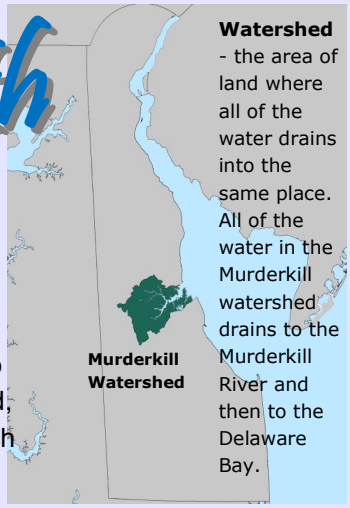
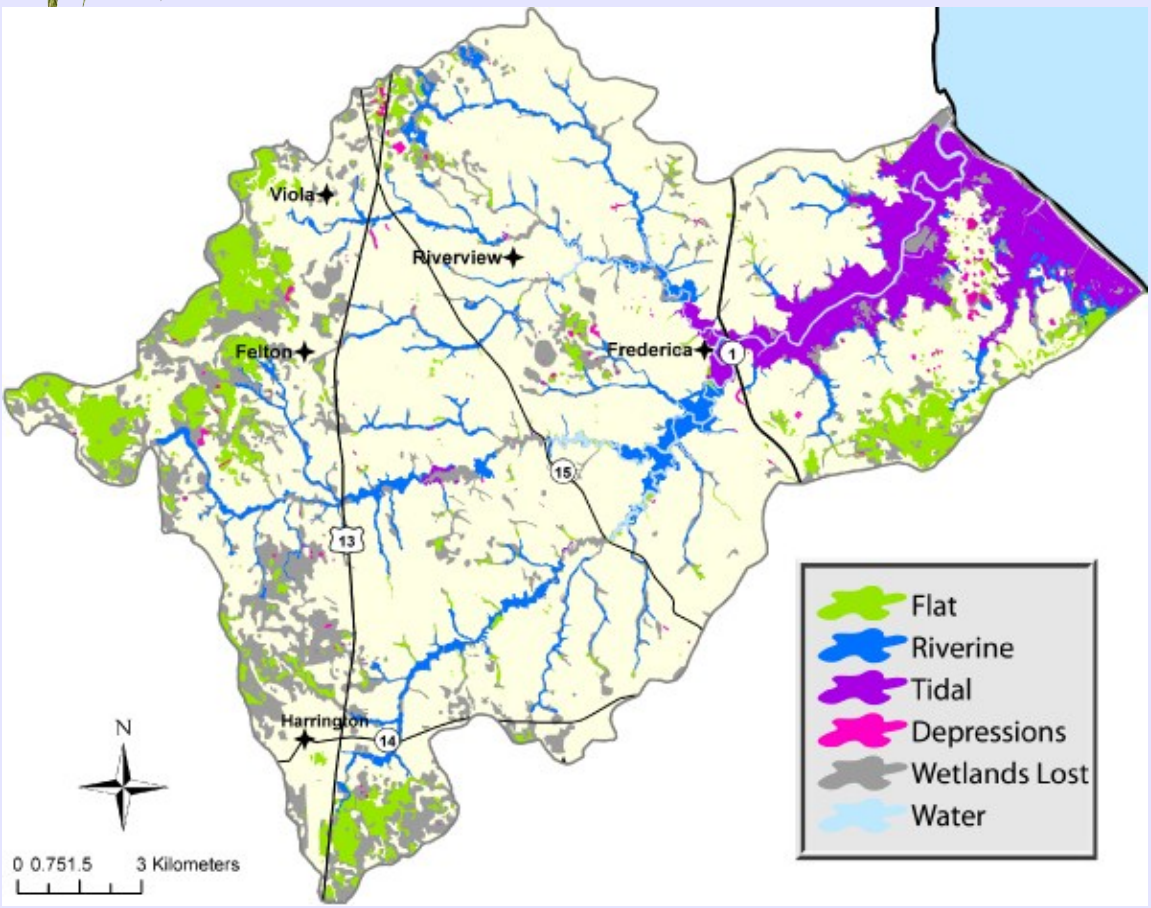
Murderkill Wetland Health Report Card

Wetlands in the Murderkill River watershed provide many benefits to people including flood protection, improving water quality through filtration, and providing recreational opportunities including boating, fishing, and hunting. The watershed also provides key habitats for wildlife and plant communities. Due to human activities that have altered the wetlands within the Murderkill Watershed, these valuable services have been reduced. In this report card, current research on the condition of the wetlands across the Murderkill watershed is used to present a summary of wetland health.



Watershed - the area of land where all of the water drains into the same place. All of the water in the Murderkill watershed drains to the Murderkill River and then to the Delaware Bay.

Continue to page 2 for details on where we go from here to protect our wetlands from degradation and loss…..



Wetland types and their value to the landscape.

All wetlands provide critical services that contribute to our well being. Below are highlights of the major types of wetlands found in the Murderkill Watershed and some of the services they provide.

Flat Wetlands - Currently, flats make up 39% of the Murderkill watershed's wetlands and serve to collect surface and groundwater feeding coastal plain streams that are valued as key wildlife habitats. Much of the wetlands changed to another landuse by humans in the western portion of the watershed were flats.

Depressions - occur in low lying areas that form depressions such as coastal plain ponds. These wetlands are seasonally wet and dry, providing critical habitat for amphibians. Depression wetlands represent approximately 1% of this watershed's wetlands.

Tidal Wetlands - are some of the most productive ecosystems on earth. They are regularly flooded by the tide and supply habitat for important fisheries. Coastal residents rely on these wetlands to reduce flooding and storm damage. They represent approximately 34% of the Murderkill watershed's wetlands.

Riverine Wetlands - occur along streams and rivers and provide storage for flood waters and groundwater. Riverine wetlands, or riparian wetlands, make up 26% of the watershed wetland population and serve an important role in water quality and storage and forming habitat corridors.

Delaware Wetlands

Purify Provide Protect

For more information:

The full Murderkill Wetland Condition Report is available at:

http://de.gov/delawarewetlands

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DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

Wetland health

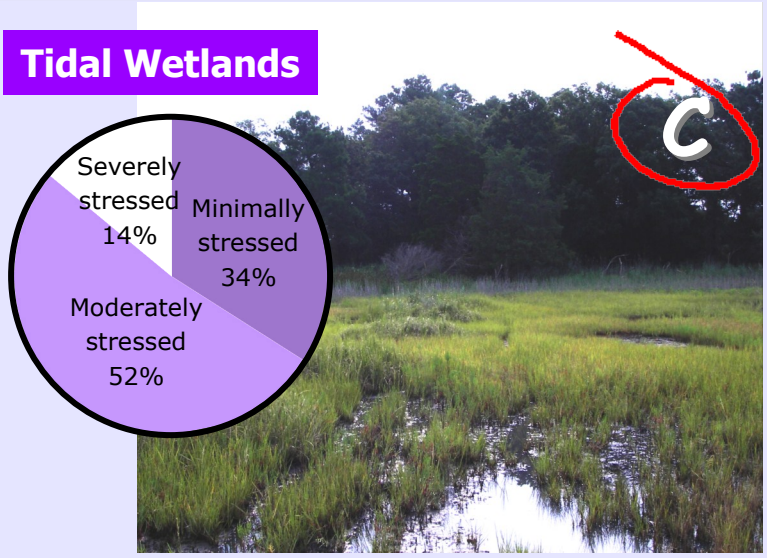
How stressors impact wetland health and how we can all work together for the Murderkill!

How are wetlands monitored?

Staff from the Department of Natural Resources and Environmental Control (DNREC) completed wetland health assessments at 30 flats, 31 riverine, 5 depressions and 50 tidal sites in 2008-2009.

Below are the predominate stressors found for each wetland type and recommendations to better manage or protect them. A watershed level restoration plan will be developed by DNREC and conservation partners based on the results of this study.

Tidal Wetlands

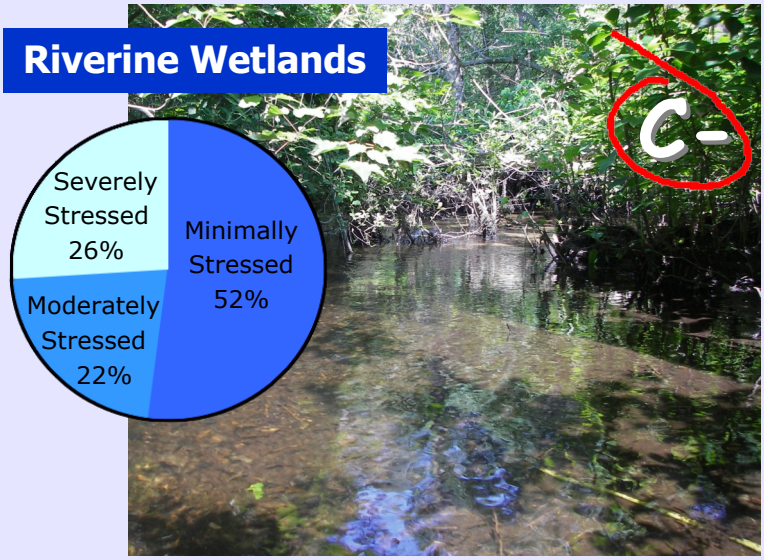


Stressors: Ditching, invasive plants, barriers to moving landward, and soil disturbance

Recommendations:

- Minimize hardened shorelines (e.g., rip rap, bulkhead, roads) adjacent to wetlands.
- Strengthen buffer regulations to allow room for wetlands to move landward with sea level rise.
- Control the spread of non-native invasive plants (e.g. Phragmites)

Riverine Wetlands

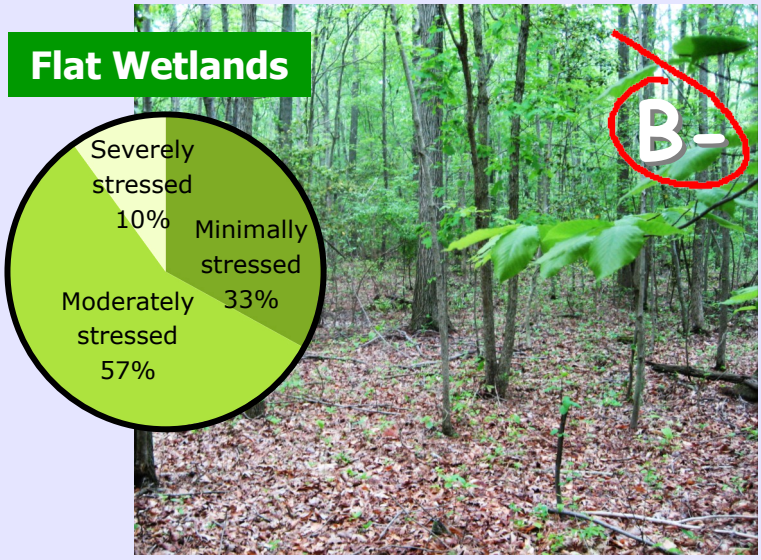


Stressors: Invasive plants, filling, stormwater inputs, channelized streams, and adjacent development and agricultural fields

Recommendations:

- Strengthen buffer regulations to protect wetlands from the stressors above associated with development.
- Ensure enforcement of existing County buffer regulations.
- Restore channelized streams to allow overbank flooding

Flat Wetlands



Stressors: Forestry, ditching, disturbances, excavation, filling, and adjacent development

Recommendations:

- Improve regulatory protection is needed at the State and/or County level because flats are the most vulnerable for loss in the Murderkill watershed.
- Increase landowner enrollment in voluntary conservation programs.
- Promote/endorse forestry best management practices.

What you can do:

If you live near a wetland, enjoy and protect it!

-Don't mow wetland vegetation on your property
-Let vegetated buffers grow along rivers and streams
-Get involved with local land use decisions to improve buffers and reduce building in and too close to wetlands.
-Consider adding a rain barrel and/or rain garden to your property to reduce runoff.

For details look to the **Wetlands Public Participation Guidebook** on the Delaware Wetlands website on the "How You Can Help" page.
http://de.gov/delawarewetlands