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.

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.

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

For more information:
The full Murderkill Wetland Condition Report is available at:
http://de.gov/delawarewetlands

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.

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.

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.

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Delaware Wetlands

Purify
Provide
Protect

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Wetlands Outreach Specialist:
302-739-9939
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.

**Wetland health**

**Riverine Wetlands**

- Severely Stressed: 26%
- Minimally Stressed: 22%
- Moderately Stressed: 52%

**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)

**Flat Wetlands**

- Severely Stressed: 10%
- Minimally Stressed: 57%
- Moderately Stressed: 33%

**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

**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.


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**Tidal Wetlands**

- Severely Stressed: 14%
- Minimally Stressed: 34%
- Moderately Stressed: 52%

**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.