

Delaware Biological Stressor Identification

Stream Health Workgroup Meeting

8/15/2025

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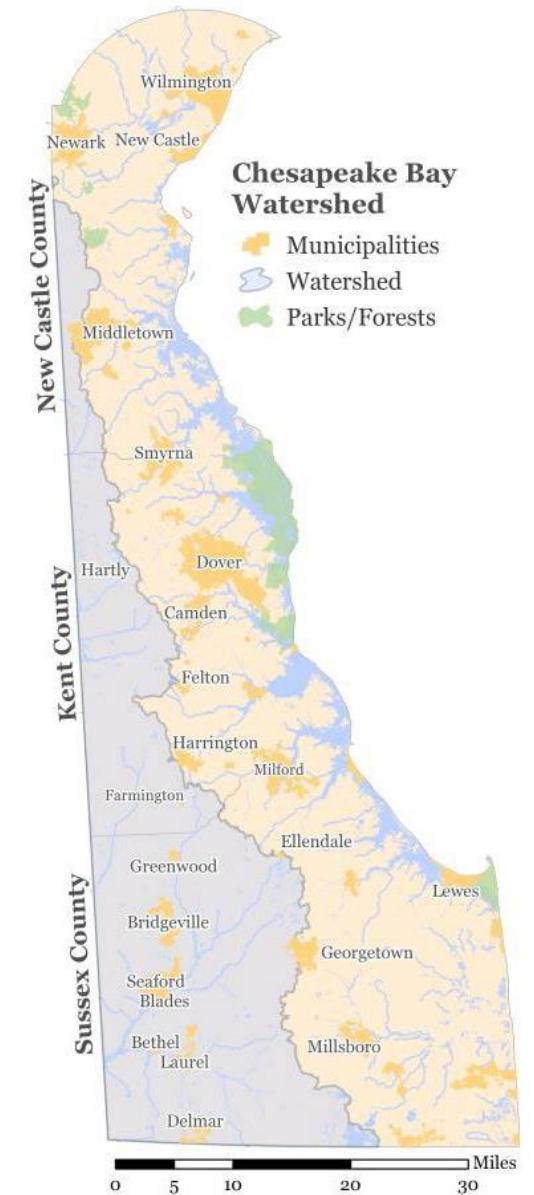
64,000 square miles

Chesapeake Bay = 64,000 sq. miles

Delaware portion = ~700 sq. miles

~1% of total watershed

Delaware has ~450,000 acres
within watershed



~700 square miles



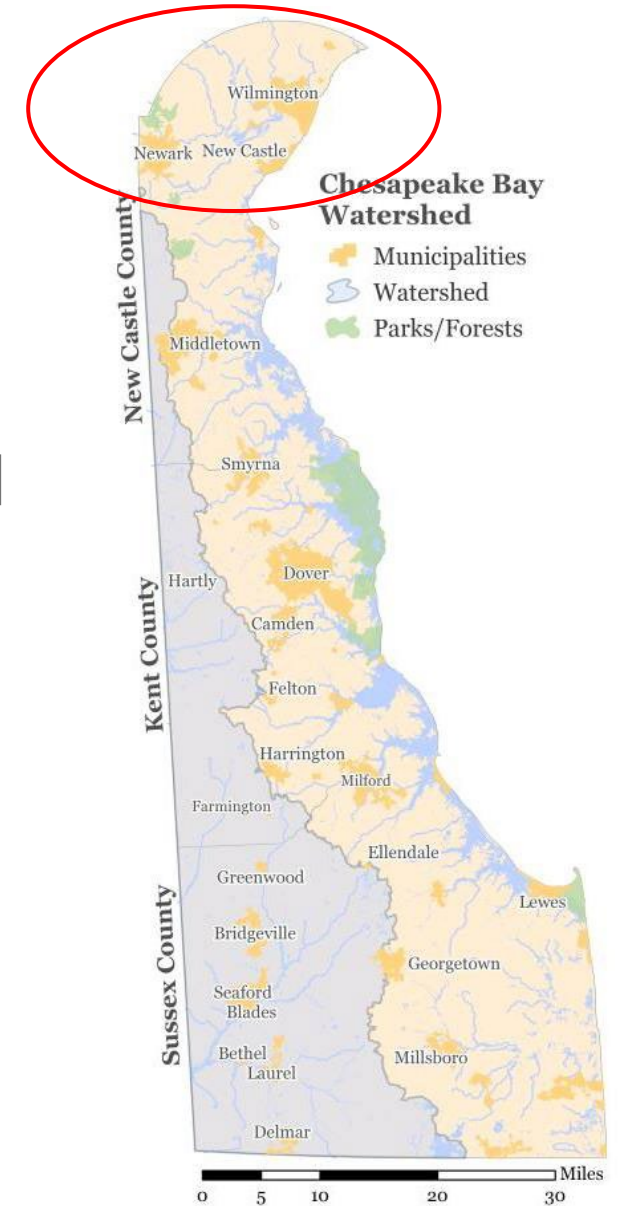
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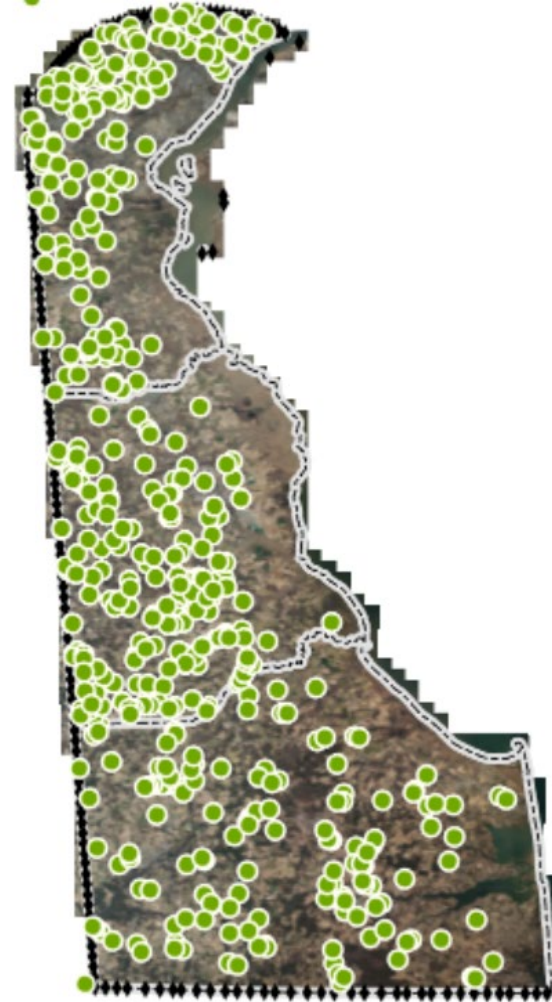
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DE Hab & Biology Program History

- Split state into Coastal Plain and Piedmont bioregions
 - 1990s-2000s for habitat and biology surveys
 - Different methods and parameters used for each



DE Hab & Biology Program History

- Habitat **and** macroinvertebrate data generated from these surveys were used to score streams on a scale of

excellent, good, moderately degraded, or severely degraded condition

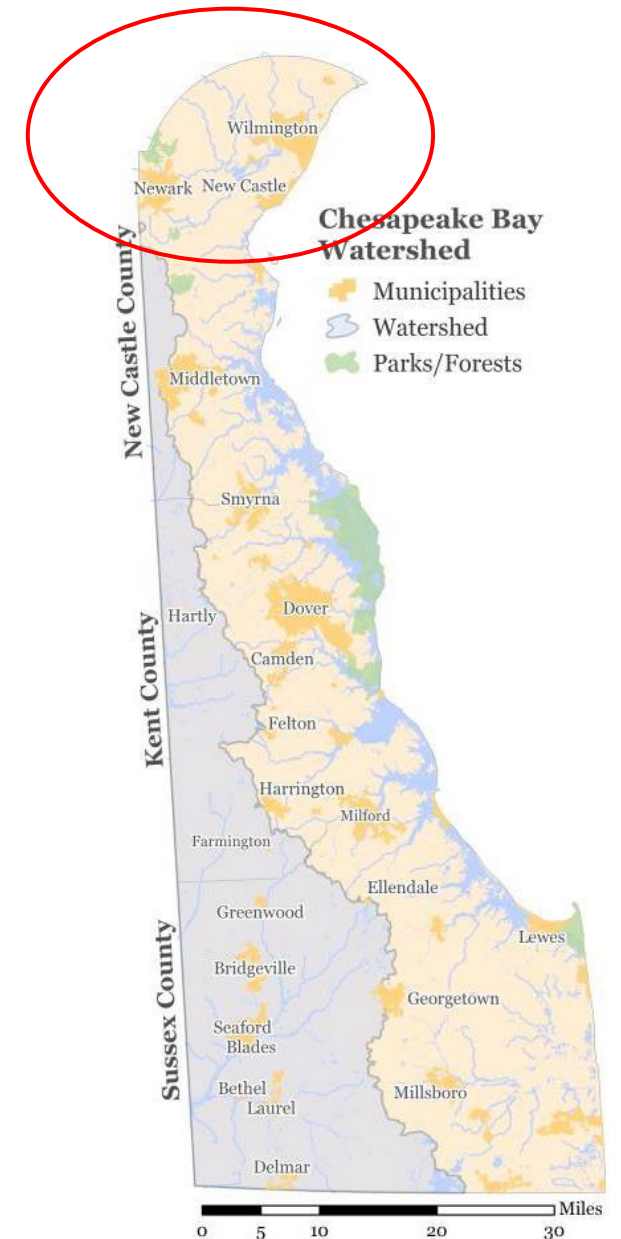


303(d) listed for habitat and/or biology

- LOTS of 303(d) listings!!
- After many sites in Delaware were listed, further action to address habitat and biology impairments stalled. Retirements and personnel turnover led to a loss in institutional knowledge and the program was discontinued in the late 2010s.
- Around 2019, there was a push to revisit bioassessment and address TMDL needs. This is a process requiring several steps, including not only revisiting bioassessment, but also the stressor identification process.

Past 3 years...

- Recalibrating macroinvertebrate IBI to establish reference conditions in Piedmont
- EPA assistance
- Dataset large enough, now digging into data to define reference vs. stressed sites



Next steps

- Stressor Analysis – EPA ROAR project (put on hold?)
- Analyzing Piedmont data
- Shifting gears to Coastal Plain region
 - Survey methods still valid?
 - Existing data still usable?
 - Etc.