Developing Volunteer Monitoring Programs to Support State Agency Restoration Efforts

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History of DNS and DNREC Partnership

- Delaware Stream Watch
- Founded in 1985
- Original Program - Stream Adoption
- Citizen Science Program – Technical Monitoring
- New Pilot Program – Riparian Habitat Assessment

DELAWARE NATURE SOCIETY

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Stream Adoption

Technical Monitoring

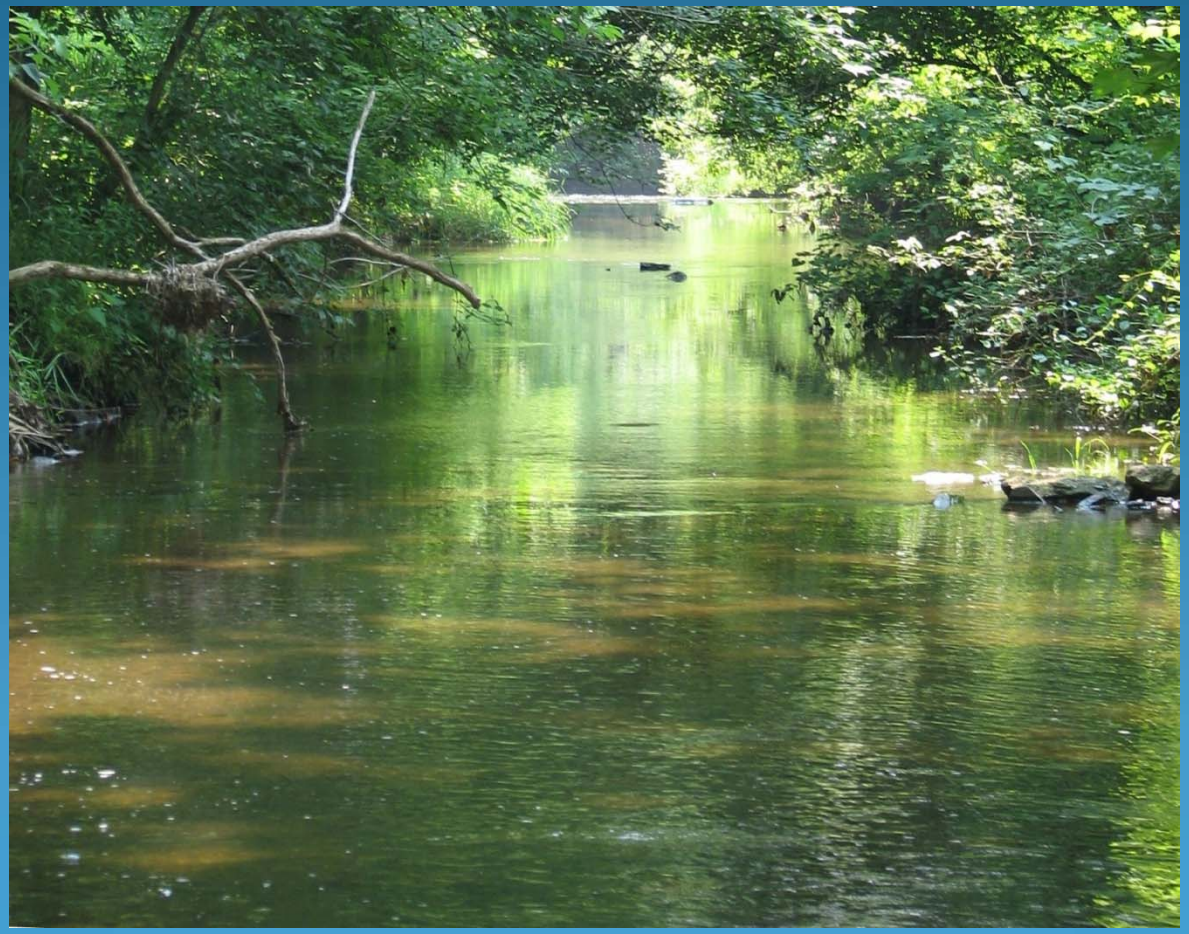
What's Different?

- Supported by local industry
- Rigorous - Quality Assurance Project Plan
- Assigned Sites – monthly schedule
  - Christina River Basin
  - Appoquinimink River Basin
  - Mispillion River Basin
- Total Maximum Daily Load (TMDL)

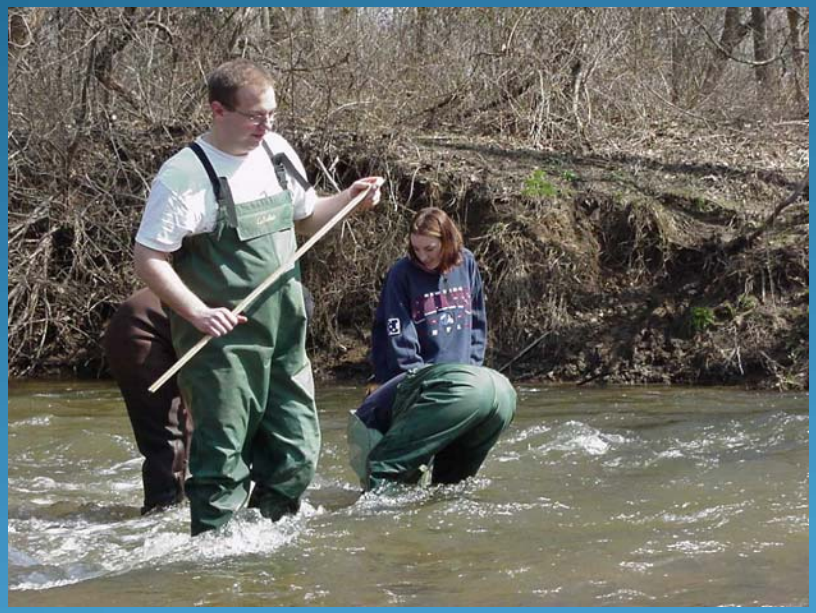
Citizen Science

- Volunteers Perform All Tests
- Tests
  - Dissolved Oxygen
    - Meter
  - Conductivity
    - Meter
  - pH, Alkalinity, Nitrates, & Orthophosphate
    - Field Kits
  - Other Measurements
    - Temperature
    - Depth
    - Turbidity
    - Salinity
  - Flow
    - 2 times per year

Riparian Habitat Assessment Pilot Project



What is Riparian Habitat Assessment ?



- Definition of “habitat” is narrowed to the quality of the in-stream and riparian habitat that influences the structure and function of the aquatic community in a stream
- Habitat assessment is performed to determine if a site is capable of sustaining a biological community comparable to a reference

Why Riparian Habitat Assessment?

- Presence of an altered habitat structure is considered one of the major stressors of aquatic systems
- Offers a quick screening to prioritize areas for more detailed analysis
- Helps prioritize areas for stream restoration

Stream Restoration

Before restoration

After restoration

Riparian Habitat Assessment Pilot

- Training Volunteers to Collect Data for DNREC to Use for Screening Stream Restoration Sites
- Public Education on Riparian Restoration

Summary

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Thank You!

Questions?