

SMART

Stony-brook **Millstone: Advocate, Repair, Transform**



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Mission Statement

The Stony Brook Millstone Watershed is an important watershed in central New Jersey. The goal of SMART is to improve the overall health of the watershed and increase intersystem communication for all stakeholders. SMART will do this by improving stormwater management, reduce orthophosphate levels, and increase the partnerships with the Stony Brook Millstone Watershed Association.



Goals

1. Improve Stormwater Management throughout the watershed to improve water quality, aquatic life, and stormwater erosion.
2. Reduce orthophosphate levels so that at least 16 out of 31 of the streamwatch sites comply with the state standard by 2026.
3. Achieve partnerships between all municipalities in the Stony-Brook Millstone watershed and the Stony-Brook Millstone Watershed Association by 2021.

About the Watershed

- Located in central New Jersey
- Roughly 39 mile tributary of the Raritan River
- Running through five different counties
- Supplying drinking water



- In 1930, the land use was 95.5% agriculture, forest and wetlands
- By 2002, these land uses were down to 60.4%, and urban land change was up to 36.6%.

Environmental Concerns

- Water Quality

- Bacteria
- Total suspended solids
- Nitrates
- Orthophosphate
- Aquatic life
- Dissolved oxygen levels

- Environmental Policy

- Project for Municipal Excellence
- Stream Protection Ordinances
- Septic Ordinances
- Forest Ordinance Protection

Existing Organizations/Programs

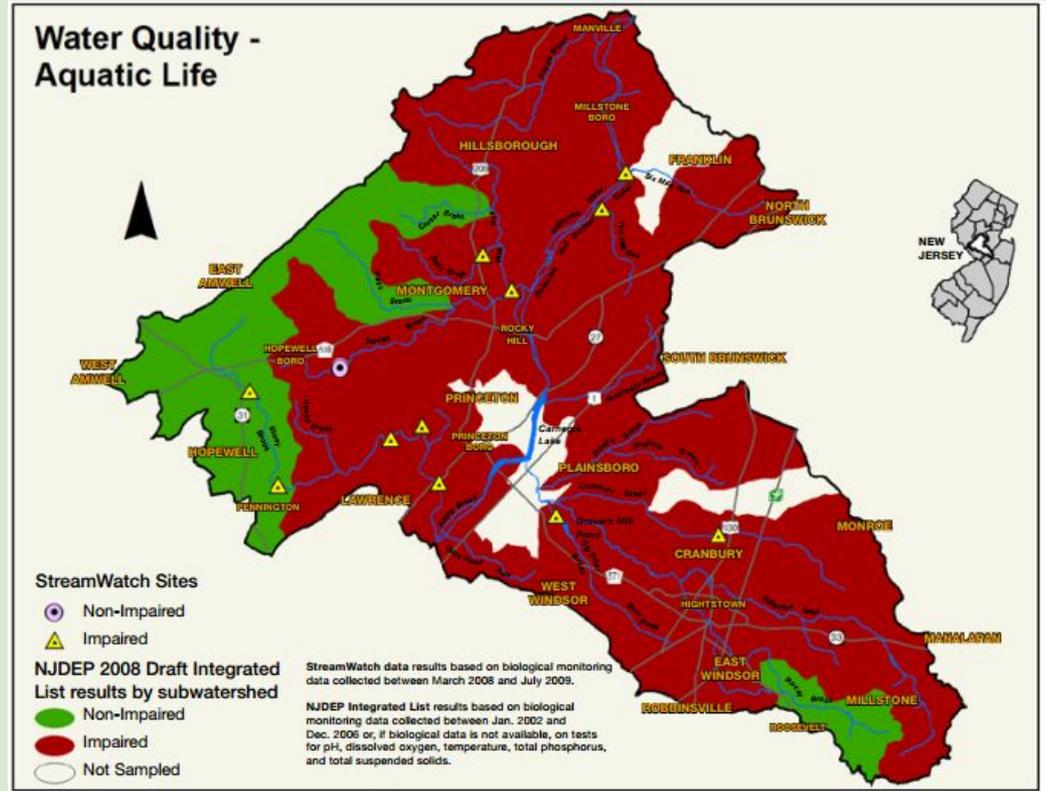
- Stony Brook-Millstone Watershed Association
 - Adult Education
 - School Programs
 - Teacher workshops
 - StreamWatch
- Watershed Reserve (Pennington, NJ)
 - Pennington Environmental Commission
 - Protected riparian buffer zones



Problem	Result	Solution
P.1 Poor Stormwater Management	Impaired aquatic life, poor water quality, and sediment erosion	Improve stormwater management practices
P.2 Orthophosphate Pollution	Reducing water quality and aquatic life	Reduce fertilizer use through policy and education
P.3 Poor Partnership between Municipalities and watershed association	Important water quality and watershed policies are not implemented	Build a strong relationship with each municipality and develop partnerships with all areas by 2021.

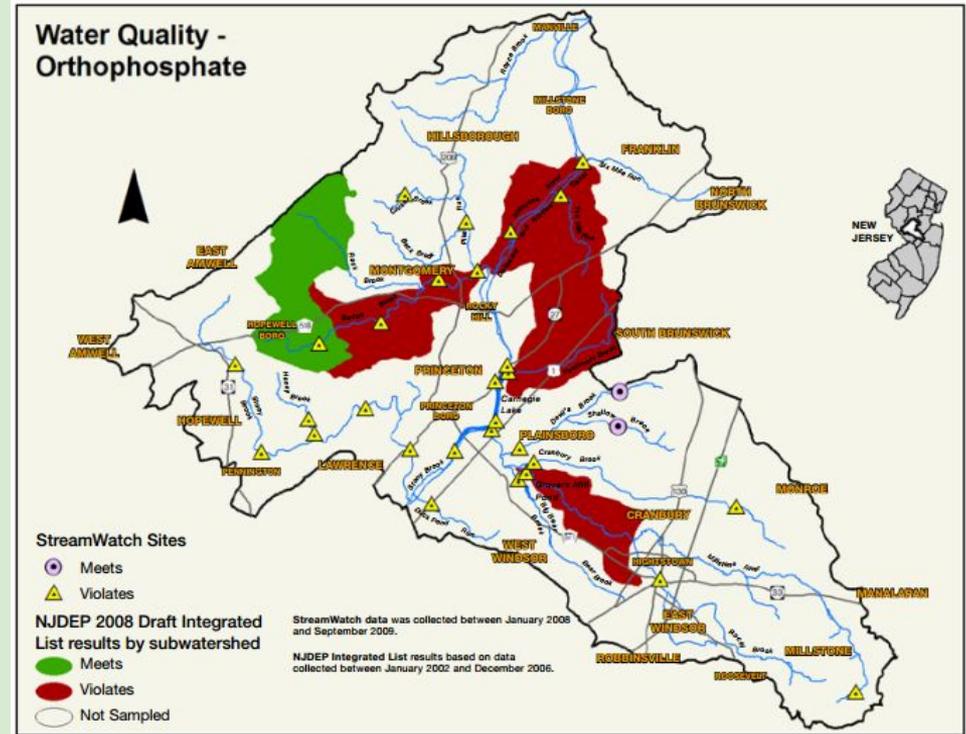
1. Improve Stormwater Management

- Most of watershed's aquatic life is impaired
- 60% of water pollution is caused by stormwater runoff
- Causes
 - TSS
 - Macroinvertebrates
- Solution
 - Better Stormwater Practices
 - Rain Gardens
 - Native Plants
- Goals
 - Reduce TSS
 - Increase macroinvertebrates



2. Reduce Orthophosphate Pollution

- 2 out of 31 StreamWatch sites meet the state standard
- Causes
 - Over-fertilization
 - Cleaning products
- Solutions
 - Regulations
 - Educational Programs
- Goals
 - Achieve compliance with state standards in 16 out of 31 sites by the year 2026.



3. Improve Partnership with Watershed Association



- Only 16 out of 26 municipalities are partnered with the watershed association.
- The Project for Municipal Excellence
- Solution
 - Work closely with local governments
- Goals
 - Achieve partnerships with all 26 municipalities by 2021

Conclusion

- Stony Brook Millstone is essential to central NJ's population/environment
- Stormwater management, orthophosphate reduction, municipality participation
 - Raingardens and native species
 - Educational programs
 - Regulatory improvements for fertilizers
 - Watershed association joining local officials

Sources

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