Sound Rivers Update:

Organizational Overview and Perspective on NC Environmental Laws and Policies: Current Trends and Impact

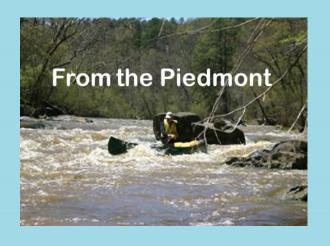
July 2016 Harrison Marks Executive Director







Organizational Overview



- The Neuse & Pamlico-Tar River Foundations merged April 1, 2015 to form Sound Rivers
- Three RIVERKEEPERS® serve as part-time advocates, scientists, educators and community organizers
 - Upper Neuse Matthew Starr
 - Lower Neuse Travis Graves
 - Pamlico-Tar Heather Deck
- RIVERKEEPERS® provide the organizing principle and embody Sound Rivers mission
- Sound Rivers mission is to protect, enhance and restore the Neuse and Tar-Pamlico River basins while promoting environmental justice





Voice for the Rivers for 35+ years

- Seek Enforcement of Clean Water Act
- Protection of high valued aquatic habitat
- Create awareness about Value of Clean Water
- Participate in Nutrient Management Efforts
- Push for Regional Wastewater Solutions





Riverkeeper Program Role

- Part-time investigator, scientist, educator, lobbyist, advocate and public media spokesperson.
- Provides scientific expertise to community
- Notifies agencies that enforce water quality rules
- Monitors the responses to pollution events.
- Cooperates with partners to monitor and restore waterways
- Educates public on how they can help protect water



North Carolina River Basins





River Facts

Neuse River

- 248 miles Falls Lake to Sound
- Longest river in NC
- 3rd Largest basin in NC
- 2,000,000+ residents, 11 counties
- 6,000+ square miles
- 3,400 linear stream miles
- 264,552 Estuarine acres
- Six miles across at the mouth, widest in US

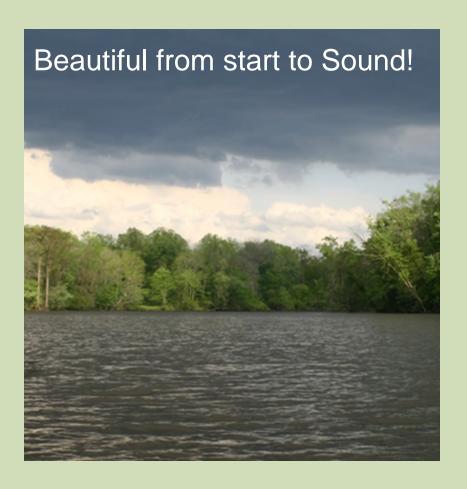
Pamlico-Tar

- 180 miles long
- 17 Miles of Atlantic coast
- 4th Largest basin in NC
- 500,000+ residents, 16 counties
- 5,500+ square miles
- 2,500+ linear stream miles
- 663,000 Estuarine acres
- 3,997 acres freshwater lakes and reservoirs



Combined basins

- 12,000 sq miles
- 6,000 linear miles of streams and rivers
- 920,000 estuarine acres
- 2.5 million people





What does Sound Rivers do?

Sound Rivers "A PRIME" non-profit

- Advocates
- Protects
- Restores
- Investigates
- Monitors
- <u>E</u>ducates



<u>A</u>dvocates – Sound Rivers Core Purpose

- Argues for science based legislation and regulations
- Organizes and encourages the public to speak out for conservation and protection
- Lobbies the legislature and regulators
 (Upper Neuse RIVERKEEPER® is a registered lobbyist)



Protects

- Reports identified violations of rules and regulations
- Seeks enforcement of existing rules
- Negotiates with violators to seek correction
- Takes legal action as last resort



Restores

- Build raingardens, wetlands and bio-retention cells to reduce storm water runoff effects
- Lead clean-ups



Investigates

- Respond to member and public reports and inquiries
- Observe and measure reported problems
- Analyze scientific and regulatory reports



Monitor

- Take samples from suspected pollution sources
- Assess on-going trends for water quality

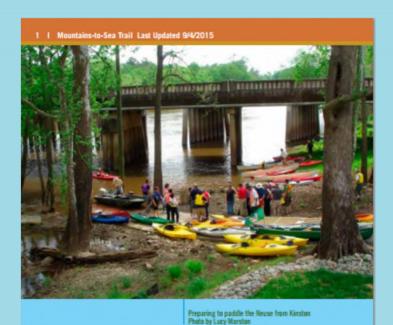


Educate and build awareness

- Focus on youth education and awareness
 - School programs
 - Youth kayaking
 - Kids RiverFest
- Increase awareness and engagement with adults
- Expand access and use of rivers
 - Water Trails/Camping platforms
 - Launch sites
- Explain economic value of recreation



Neuse River – Mountain to Sea Trail



The Neuse River - MST Segment 11A-16A

FALLS OF NEUSE DAM TO PINE CLIFF RECREATION AREA — NEUSE RIVER PADDLE ROUTE By Sound Rivers

The Neuse River runs 227 miles from Falls of Neuse to the Pamlico Sound. This guide provides directions for paddling 216 of those miles as a way to complete the MST from the Falls Lake dam in Wake Forest to



- 16 x 32 Camping Platforms
- 8 currently on Tar-Pam
- Applying for first 2 on Neuse



State of the Rivers

- Declared Nutrient Sensitive Waterways (NSW) in late 1980's
- Nutrients, sediment, bacteria and metals key problems
- Urban areas show increases in bacteria and metals
- Lower rivers continue to see deleterious effects caused by excess nutrients
- Atmospheric deposition of nitrogen key issue
- Signs of water quality decline in the Tar and Upper Neuse continue



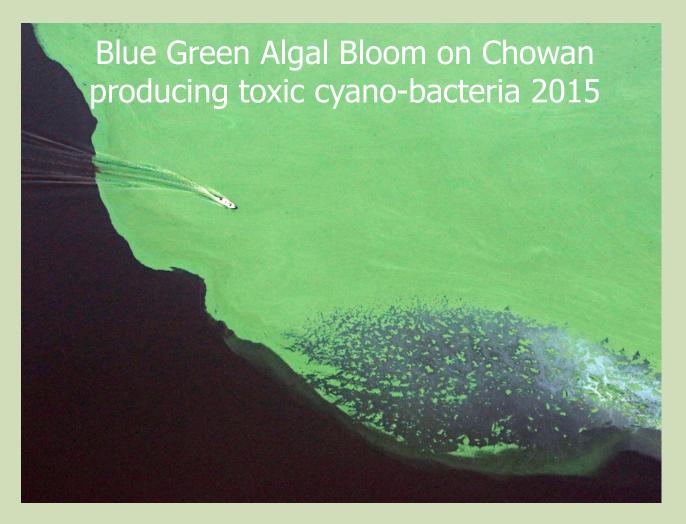
Current Status (N & P)

- Estuarine nutrient impairment continues
- Have not met loading goals
- Rollbacks to NSW strategy and rules
- Increases in Org. N in upper watershed (no trend in Total N)





Algal Blooms





Challenges, Issues, Opportunities

- Concentrated Animal Feeding Operations (CAFOs)
- Urban Development
 - Increased point source
 - Stormwater runoff
- Loss of riparian buffers
- De-regulation, loss of regulatory expertise, planning/data
- Water supplies & ecological flows
- Regional wastewater solutions
- Protection of high quality aquatic habitat and recreational resource



North Carolina Legislative and Regulatory Environment

- Environmental Regulatory Staff reduced by more than 50% since 2010
- Regulatory agency mission shifted to customer service for permit seekers, not protect environment
- No rapid response teams on Tar-Pamlico or Neuse basins
- Cape Fear River at Wilmington redesignated as "swamp waters" rather than addressing deteriorating low DO



Overworked: The DEMLR Example

- Substantial staff reduction since 2010
- 25,000 conducted 2010
- 15,000 inspections in 2014
- Each site reached an once every ten months on average
- Average city or county inspector monitors about 37 construction sites
- Average state inspector is responsible for about 870 sites
- In 2012, program staff wrote lawmakers that cuts had created "a tremendous strain on the program's ability to carry out its responsibilities."
- More cuts since 2012



NC Sediment & Erosion Control Enforcement

Fiscal Year	Employees	New Projects	Inspections	Citations	% Citation	Referred to Enforcement	% Referred
2010	61	2,106	24,745	560	2.26%	69	12.32%
2011	52	2,118	20,152	363	1.80%	29	7.99%
2012	44	1,959	15,659	247	1.58%	18	7.29%
2013	40	2,037	15,289	195	1.28%	6	3.08%
2014	40	1,974	14,883	168	1.13%	7	4.17%

- In June 2009, the program had 65 employees; now it has 40, and expects to lose another four. (Source: WFAE)
- 2009 & 2010 Violations recorded in 11 of 12 months
- 2013 Violations in 3 months, 2014 Violations in 5 months
- 2015 Violation months not recorded after March

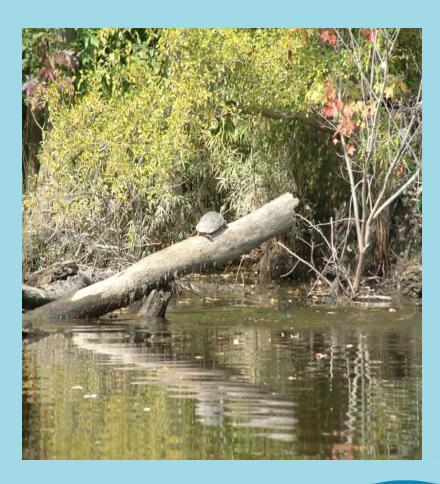


Why Care About The Environment?

- Major North Carolina asset
- Quality of life draws people to NC
- Public Health
- Moral and ethical imperative



For today and future generations!



Ancient Proverb

"We do not inherit the earth from our ancestors, we borrow it from our children"



The work you do matters!

Thank you for minimizing the human impact on the great and mighty Neuse River!





