



Using Data Collection and Visualization for Advocacy Work and Public Engagement

Haw River Assembly

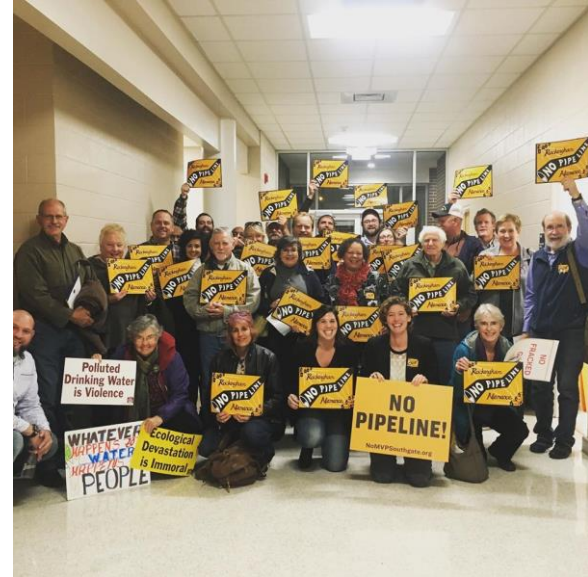
Emily Sutton

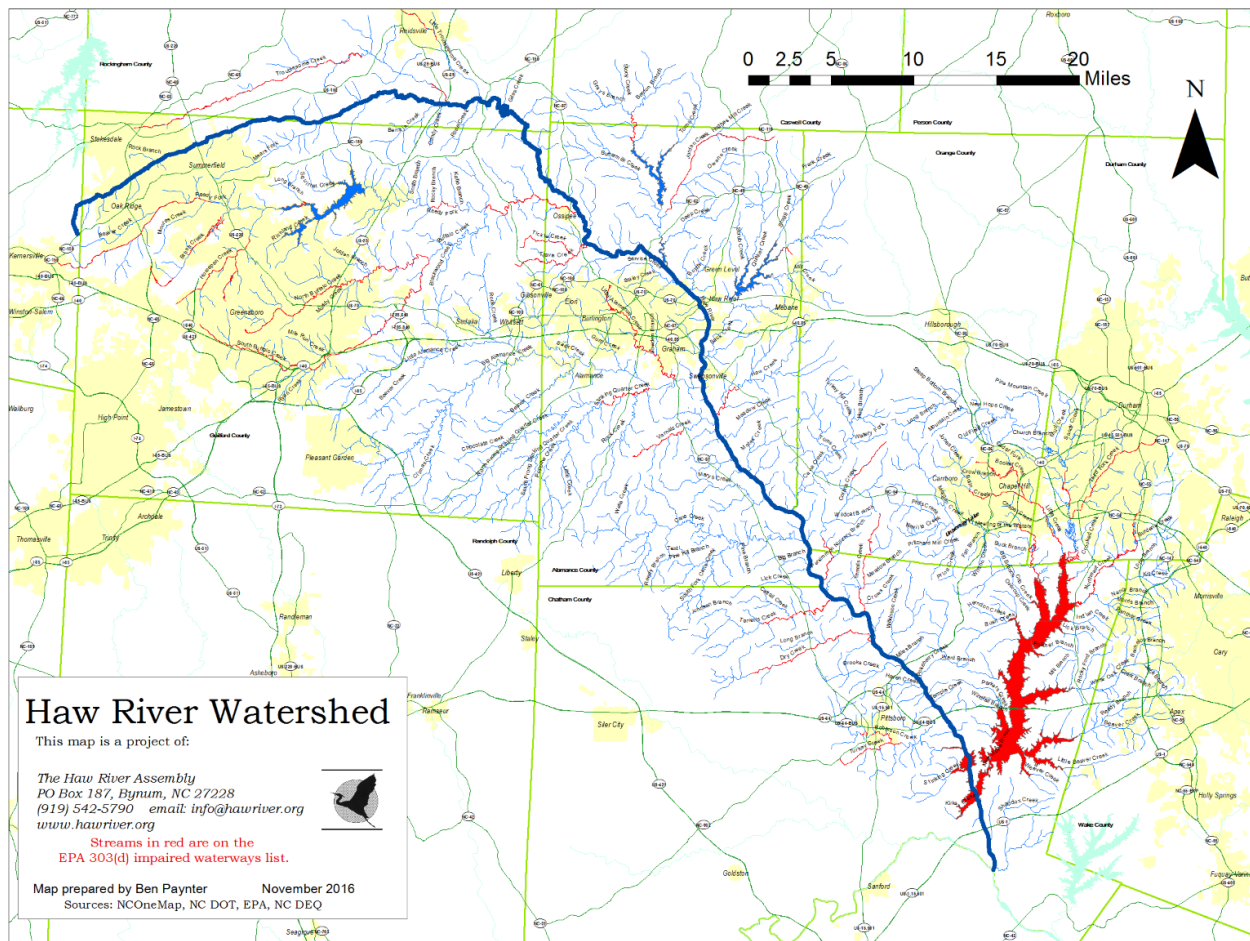
Haw Riverkeeper

Who Is Haw River Assembly?



- Waterkeeper non-profit organization
 - Advocacy
 - Community Engagement
 - Policy work
 - Education and Outreach
 - Water Quality monitoring
 - Litigation





Haw River Assembly


Haw River Watershed

This map is a project of:

The Haw River Assembly
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**Streams in red are on the
 EPA 303(d) impaired waterways list.**

Map prepared by Ben Paynter November 2016
 Sources: NConMap, NC DOT, EPA, NC DEQ



Opportunities for Collaboration and Partnerships

- Deep knowledge of the watershed and known sources of pollution
- Impacted Community members
- Grassroots organizing
- Advocacy
- Litigation
- Direct and Indirect lobbying
- Academic research and partnerships
- Emergency Management
- State agency departments
- Community groups

Issues in the Haw



- “Forever Chemicals”
 - PFAS and 1,4-dioxane
- Industrial Animal Agriculture
 - Poultry
- Urbanization
 - Sedimentation, buffer violations, litter, etc
- Sanitary sewer overflows

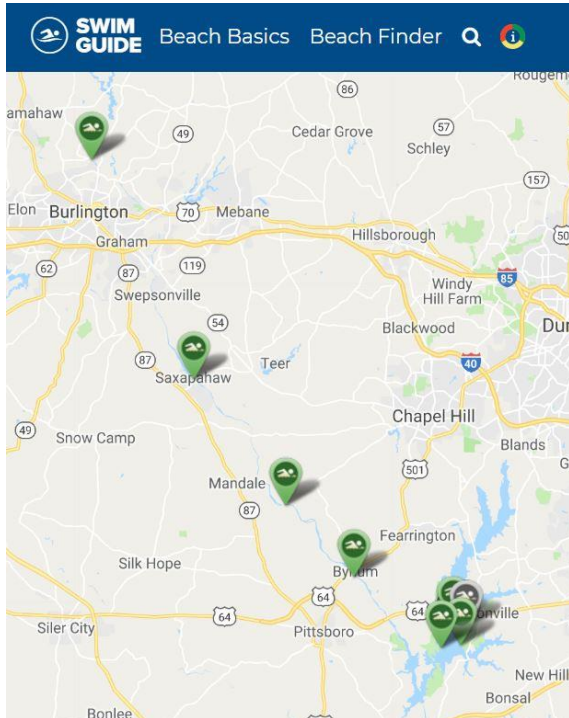


Data Collection - using numbers to spark action

- Volunteer/ citizen science efforts
 - River Watch
 - Muddy Water Watch
 - Litter Surveys
- Standardized sampling protocols
 - E.coli
 - PFAS
 - 1,4-dioxane
 - Microplastics
 - YSI measurements- Conductivity, pH, Dissolved Oxygen
 - Hach meter- turbidity
 - Nutrient samples



Swim Guide Program



- Monitoring 10+ popular swimming accesses throughout the Haw Watershed
- E.coli and YSI parameters
- Public engagement for advocacy
 - Transition state standard from fecal to E.coli
 - Apply state standard to all waters, not just Class B
- Encourages public to explore new -free- swimming accesses

Tracking Industrial Discharges and Sludge Application



- Isolated potential sources within the watershed
 - Burlington
 - Greensboro
 - Reidsville
- Prioritizing locations closest to public drinking water sources
 - Pittsboro
 - Concerns about private wells
- Began tracking sludge application from those municipalities to better understand risks



Visualizing data to find sources of pollution and inform our Advocacy work



- Where do we have repeat E.coli spikes? What is influencing that upstream?
 - Has there been recurring sanitary sewer overflows? Can we work to advocate for infrastructure upgrades and financial assistance? Notification systems?
- Where do we have spikes in nutrient levels? Influenced by agriculture or municipal stormwater?
- How can we prioritize polluters to hold accountable? Public health risks?
- What are the cumulative impacts on specific communities in our watershed?

Visualizing data to find sources of pollution and inform our Advocacy work



- River Watch- Where have we repeatedly had low macroinvertebrate scores? What is upstream?
- Sediment Violations- We do we have recurring issues? Is the local program running effectively? Is one company a bad actor?
- Litter Surveys- What is being collected? Can we use this to advocate for common sense policies to minimize single use plastics or styrofoam?



- <https://healthofthehaw.org/>

Questions and Comments



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