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The Haw River Assembly is a non-profit organization in the Piedmont of North Carolina, working to protect our waters for nearly 40 years. More than ever, urgent action on climate change issues is needed to protect our people, lands and waters.

We have looked at North Carolina research and studies on probable impacts that are (or will be) occurring due to climate change in the Haw River watershed in the Piedmont region of NC.

Our primary sources for this information are two major North Carolina reports that were published in 2020.

- The "[North Carolina Climate Risk Assessment and Resilience Plan](#)" from Governor Cooper's administration
- The "[North Carolina Climate Science Report](#)" by the North Carolina Institute for Climate Studies-- an inter-university project.

We have summarized the findings of these reports specific to the Piedmont region and have made them available on our [website](#). We urge you to read the full published summaries, and to refer to the sourced reports. Briefly, the climate change impacts we summarize are:

Impacts of Climate Change in the Piedmont of NC

Local Climate Change Impacts on Precipitation, Storms and Flooding: It is believed that annual precipitation will likely increase in NC with climate change. Extreme rainfall during storm events has already begun. 3 of the 5 biggest floods on the Haw River in the past 25 years have happened since 2018.

Limits on Drinking Water Supply: Drinking water resources stressed by climate change will further be impacted by a growing population in the Haw River watershed. Many municipal and industrial water supplies use surface waters impounded in reservoirs as their primary source. Low stream flows and lake levels resulting from drought can result in poor water quality.

Climate Change Impacts Wastewater Systems: Wastewater treatment is affected by population growth, flooding, and aging infrastructure. Climate change will bring new challenges as more frequent extreme storms overwhelm wastewater treatment systems.

Local Climate Change Impacts on Drought: Severe drought impacts are expected to become more frequent in the future as temperatures rise in North Carolina, including the Piedmont.

Extreme Weather Changes in the Piedmont: Hurricanes, winter weather, tornadoes and thunderstorms are all anticipated to become more extreme with climate change.

Climate Justice: In North Carolina, structural racism has resulted in many African American, Hispanic and Indigenous communities being pushed to less desirable lands near floodplains, industrial sites and highways where air pollution is high. The impacts of climate change add to centuries of environmental, social, economic, and health burdens placed on these affected communities.

Increased Temperatures: Temperatures have been increasing in the Piedmont since the 1970s; remaining consistently above average since the 1990s.

Impacts of Increased Population and Population Density in the Piedmont of North Carolina: Increases in population exacerbate many impacts of climate change, putting more stress on natural resources, including water supplies. Increased urban density can lead to hotter cities. Population is expected to increase in many counties in the Haw River watershed.

Biodiversity Collapse in the Haw River Watershed: Changes are already being seen in the decline of natural ecosystems and species in the Piedmont. We must act quickly to protect and increase natural areas and habitat.

Climate Change and Agriculture and Forestry: Agriculture and climate change are deeply intertwined. As populations increase, concerns surrounding the effects of global warming on food supply and forests do as well.

Moving Forward

This knowledge can help us reduce greenhouse gases, such as carbon and methane, and be better prepared for mitigating the impacts on our communities as climate change becomes worse. Even with our best efforts going forward, problems exist that are already too late to alter—we are seeing the effects already. As we move forward in 2021, we ask that you turn your focus on efforts to decrease greenhouse gases and to mitigate the impacts of climate change. This especially will help to protect communities most at risk for climate impacts. We hope that you, as a local representative in the Piedmont, will push to replicate initiatives led by other sustainability and climate action boards throughout the watershed in your home county.

Summary of Actionable Items

- 1. Create a municipal wide strategic energy plan that includes:**
 - Reduce energy consumption per square foot in city and county government owned buildings by at least 40% from estimated 2020 levels by 2035
 - Reach 100% renewable energy in city and county government operation by 2040
 - Address cost burdens to ensure a just transition to renewable energy for all prioritized at-risk populations.
- 2. Green transportation:**
 - Reduce greenhouse gas emission from city and county government operations by at least 40% from estimated 2020 levels by 2035
- 3. Ensure that protecting wildlife biodiversity are integral to city and county planning and development:**
 - Enforce the stricter [Jordan Lake Riparian Buffer Rules](#) through the Haw River watershed
 - Develop a [landscape plan for wildlife habitat connectivity](#)
 - Establish or strengthen tax incentives for conservation easements
- 4. Create incentives for local farmers to participate in regenerative farming practices:**
 - Work in collaboration with existing Soil & Water and Extension agencies
 - Emphasize fairness by including small farms in incentives
- 5. Protect mature tree canopy, open spaces, and natural areas:**

- Create or strengthen tree protection ordinances and natural area protection using best practices and lessons learned from other municipalities and counties
- 6. Improve solid waste reduction, diversion and composting:**
 - Focus on methods to reduce waste at the household level, improved citizen access to composting, and exploration of strategies for commercial waste reduction and diversion.
 - Find ways to reduce the use and production of single use plastics
- 7. Raise community awareness of county and municipal goals on climate change initiatives:**
 - Hold community meetings to raise awareness and gather ideas for climate change reduction and mitigation at local level
 - Establish specific goals and report progress regarding climate change initiatives to city and county residents

9. Strengthen stormwater and floodplain protections

- **Update stormwater ordinances to reflect new storm data for more intense rainfalls happening more frequently.** Update floodplain information, and restrict development in newly impacted areas
- incorporate green and low-impact development stormwater control methods into ordinances and design guidelines.

We hope that this information will provide a framework for tackling the climate related work ahead. We encourage you to share with our organization any existing initiatives within your county and municipalities. Please reach out to us if you have questions or would like additional information. We also invite you to sign up [online](#) for our updates from this committee on Climate Action to keep informed of new ideas and developments that impact the Haw River Watershed and beyond.

Thank you for your service to our community. We believe that solutions can be found to the climate change crisis by working together.

Sincerely,
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