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Dear Legislator,

March 30th, 2021

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, these climate change impacts are:

Impacts of Climate Change in the Piedmont of NC

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. Three 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 NC, 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: Structural racism has resulted in many African American, Hispanic and Indigenous communities in NC 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.

Taking Action

Understanding impacts can help us reduce greenhouse gases such as carbon and methane, and better prepare us for mitigating the impacts as climate change worsens. 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 focus on efforts to decrease greenhouse gases and mitigate the impacts of climate change. This will ensure more protection for communities most at risk for climate impacts.**

Recommendations for the North Carolina State Legislature

1. **Establish a Statewide Clean Energy Goal:** Require the State Energy Office, in consultation with the North Carolina Utilities Commission and the Public Staff, to develop a plan that establishes a statewide goal that results in 100% of North Carolina's electricity be generated by renewable energy sources by 2050 and that also communicates measurable reductions in energy used in North Carolina from non-sustainable sources in preceding decades.
2. **Address flooding and increased stormwater that is occurring with climate change:** Stormwater design requirements must be revised to meet new rainfall intensity statistics--not historic data. Infrastructure like dams, drinking water systems and wastewater systems must be improved to withstand greater rates of rainfall and flooding. We must continue to flood-proof and rehabilitate sewer infrastructure. These measures will counteract the risks associated with inflow, infiltration and sanitary sewer overflow. This work must be prioritized before the next big storms inundate these systems and pollute our waters.
3. **Support planning and infrastructure needed to ensure adequate and safe drinking water supplies:** As the water table drops due to greater usage or during drought, private

and public drinking water is under threat from climate change. The recharge process of water in the ground as well as water stored in reservoirs will be impacted by warming as heavy rainfall runs off of land and as forests are increasingly replaced by pavement and buildings.

4. **Protect populations who are most vulnerable to extreme weather due to poverty and the legacy of structural racism in our state:** Communities historically located in low-lying lands are in constant danger of flooding. Mobile homes are in the most danger from high winds and tornadoes. Lack of air conditioning can be fatal to the elderly and others in high heat events, especially as nights become warmer when global temperatures rise.
5. **Promote job creation through the implementation of plans and policies for renewable energy, energy efficiency, infrastructure upgrades and green technologies.** Support carbon neutral industry, expertise, products, and services to make NC a leader in the country.
6. **Support programs to reduce fossil fuel use in transportation, industry, and electrical generation:** Support programs that include rebates for battery electric vehicles, home and work chargers, home and industrial solar and wind generation, battery storage, and passive solarization of buildings. Support walkable, bike-able communities, and prohibit homeowner association restrictions on residential solar installations.
7. **Ban Fracking, Oil Drilling and new pipelines in NC** Prohibit any agency of the State from issuing a permit for oil or gas exploration or development activities using horizontal drilling and hydraulic fracturing treatments. Oppose any federal permits for off-shore oil drilling and seismic testing. Deny permits for trans-state natural gas (fracked gas) pipelines.
8. **Reform state management of forest lands so that their value for climate mitigation, habitat for biodiversity and wildlife is given a high priority:** Expand the present use value program to recognize conservation land by taxing it at the lowest rate, while taxing lands used for extractive timbering at a higher rate. Reinstate the *Conservation Tax Credit*.
9. **Fund agricultural research on adaptive crop and livestock species that can withstand greater heat, and regenerative farming practices that sequester carbon:** Provide more investment in small scale agriculture.
10. **Increase land conservation to counter human impacts that reduce nature's resiliency and biodiversity:** Create and expand state parks and state natural areas, with habitat connectivity. Preserve and restore wetlands and riparian buffers as counters to aquatic species extinction.

We hope this information will provide a framework for addressing climate action. Please reach out to us if you have questions, would like additional information, or have ideas to share with us. We invite you to [sign up for updates](#) from our committee to help keep you informed of developments in North Carolina. Thank you for your service to the people of North Carolina. We believe that solutions can be found to the climate change crisis if we all work together.

Sincerely,

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