



Water in the Lumbee World

Challenges & opportunities to protecting a culturally significant river & its wetlands in an era of rapid environmental change

Ryan E. Emanuel, PhD (@WaterPotential)
Department of Forestry & Environmental Resources
NC State University

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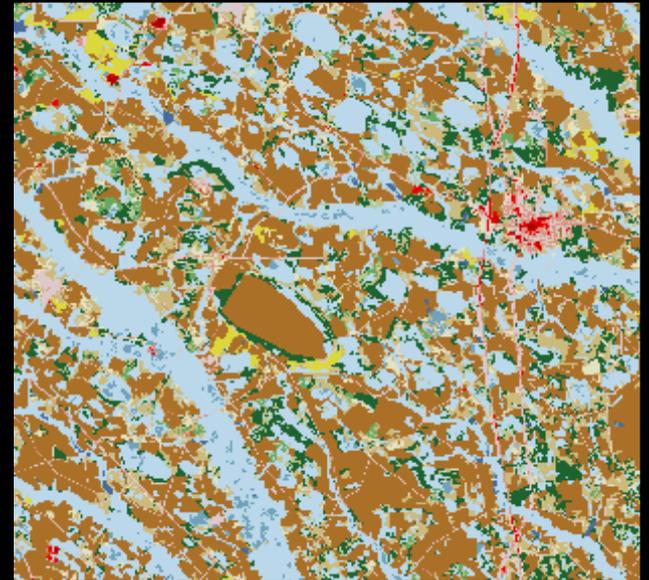
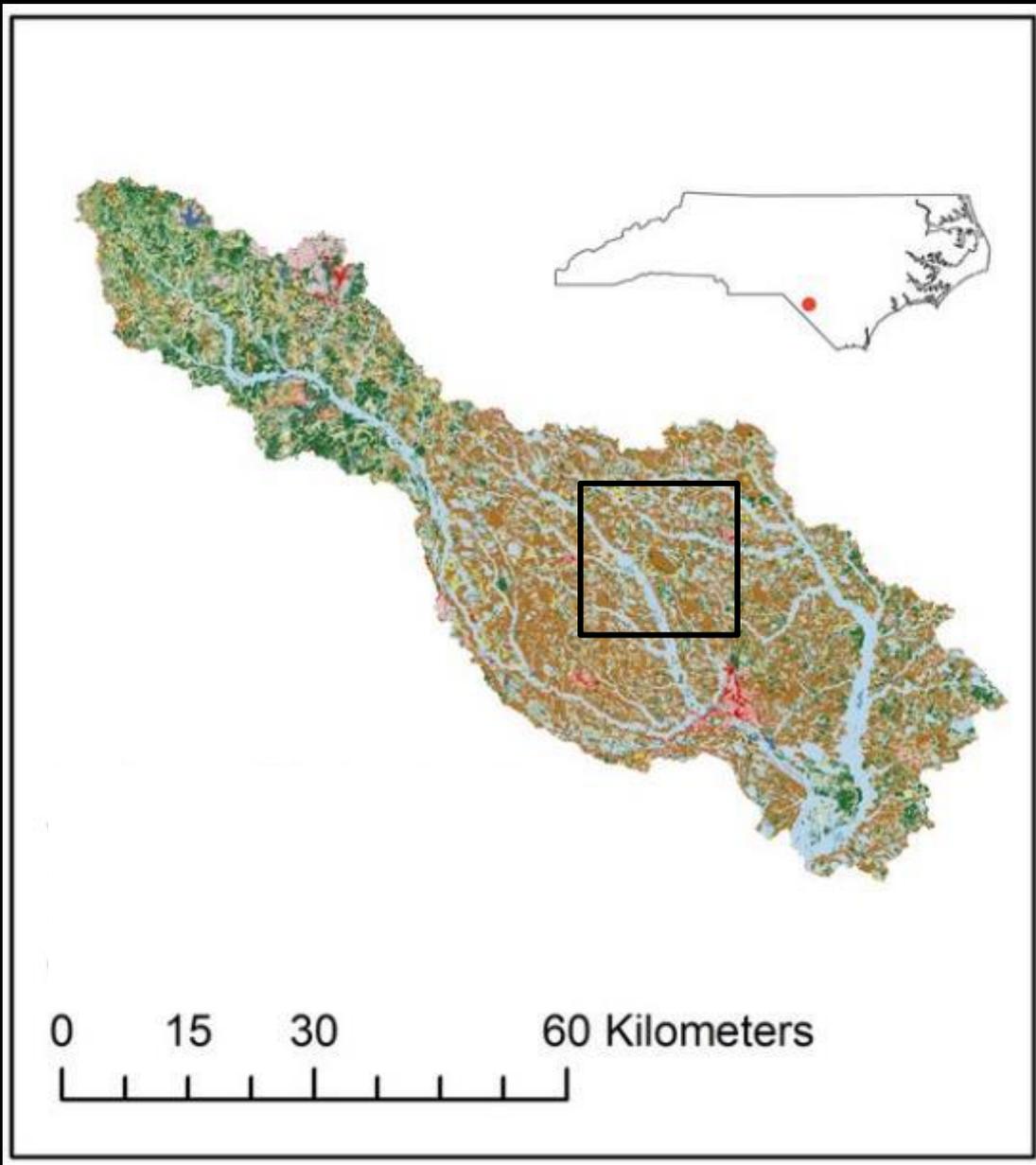




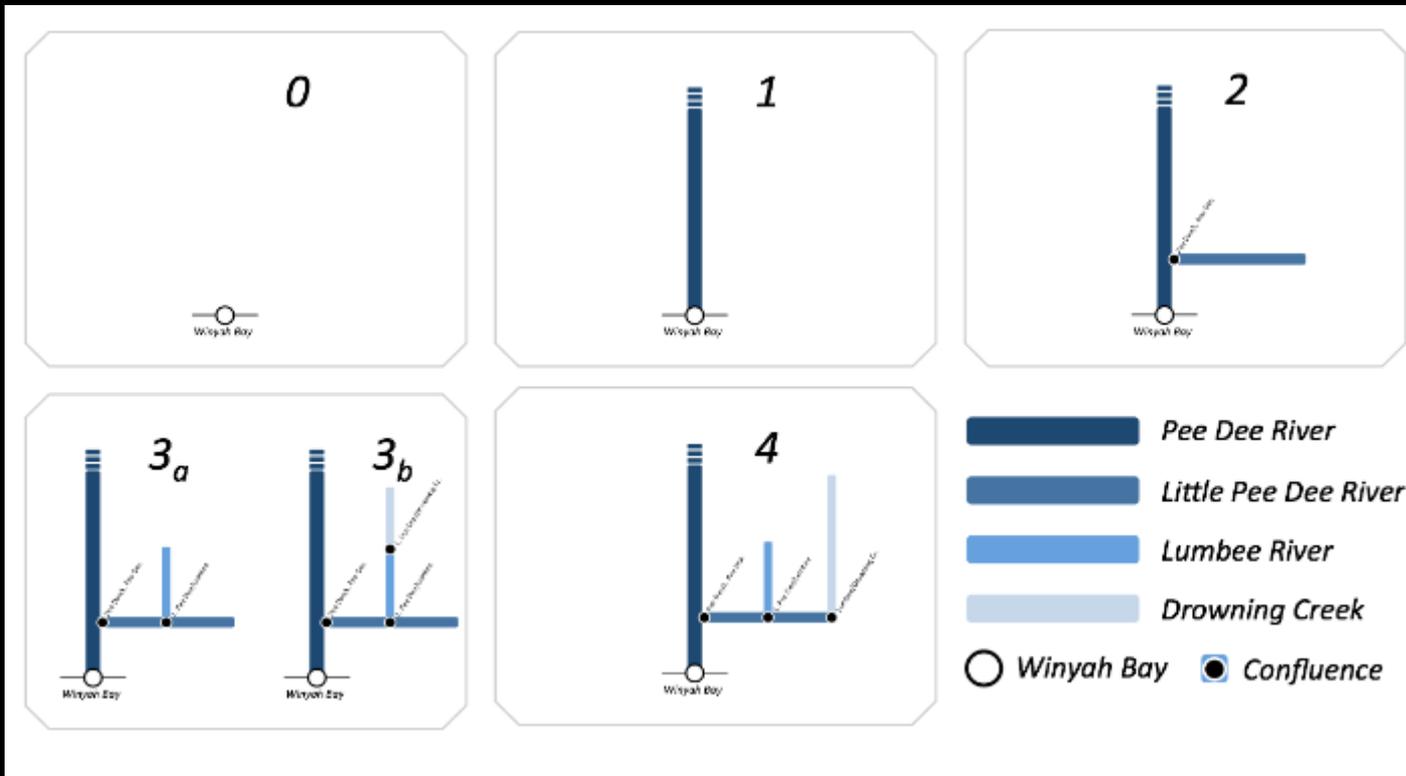
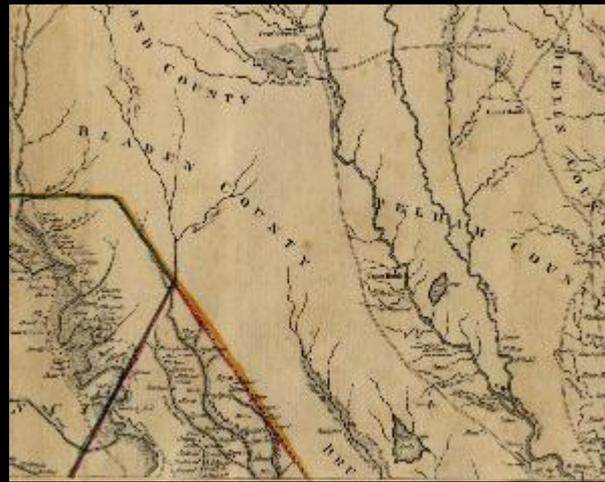
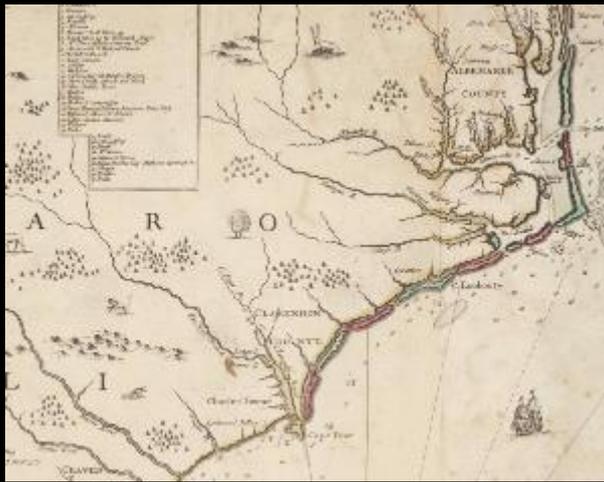
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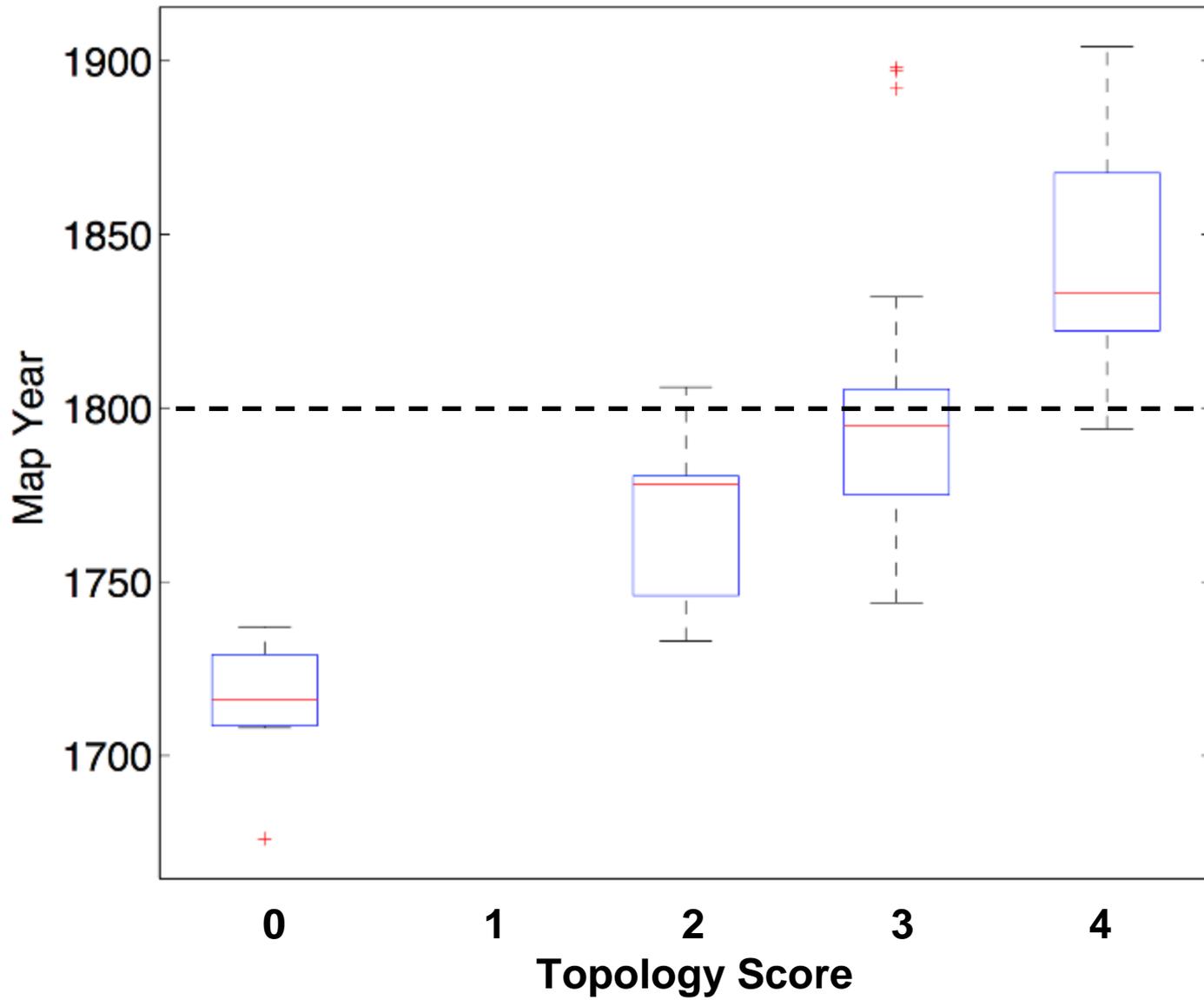


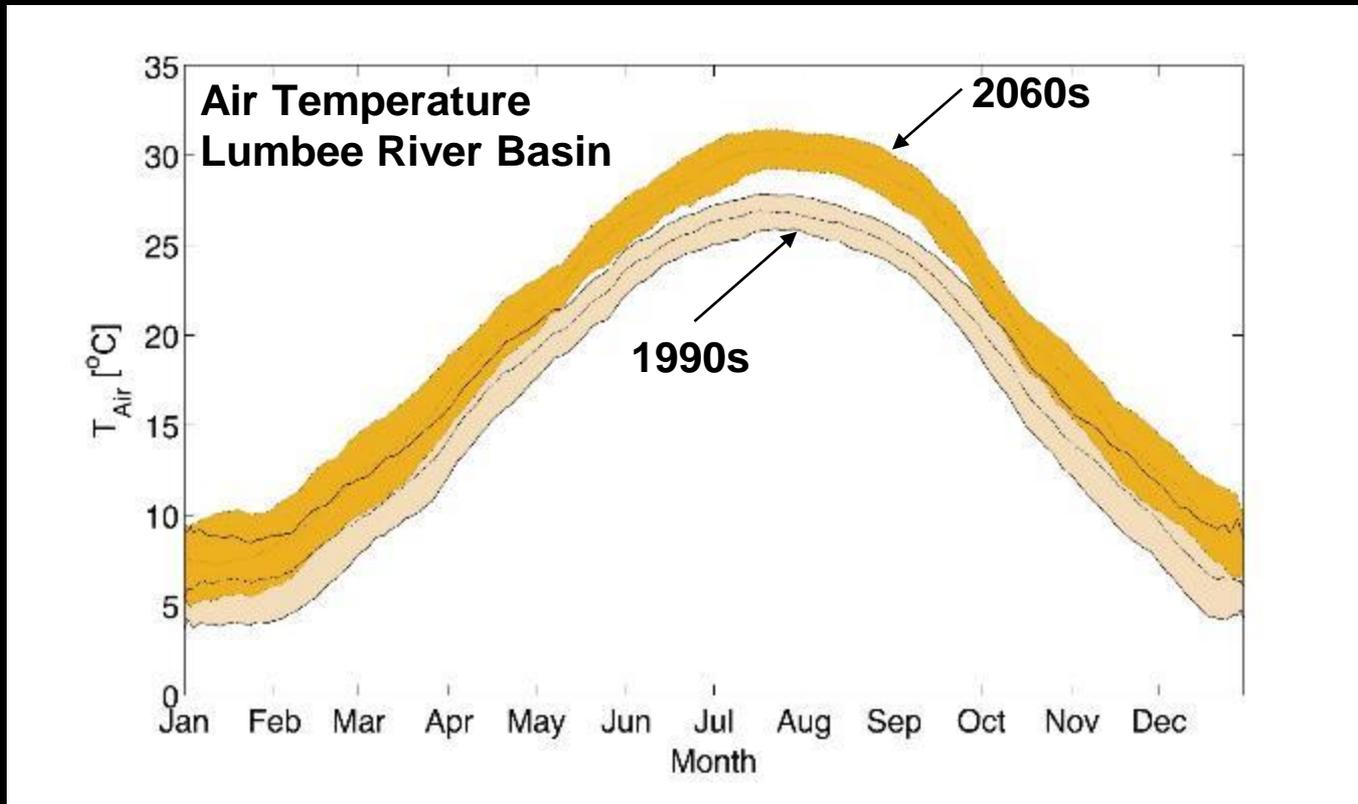
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Under “business as usual” radiative forcing (RCP8.5):
Average **July** temperatures will be about **6 degrees F warmer** in 2060s than 1990s.



Natural Disasters and Climate Change

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U.S.

Hurricane Matthew Hits a North Carolina Tribe Particularly Hard

Estimated 61,000 Lumbee, already very poor, bear much of the mess'

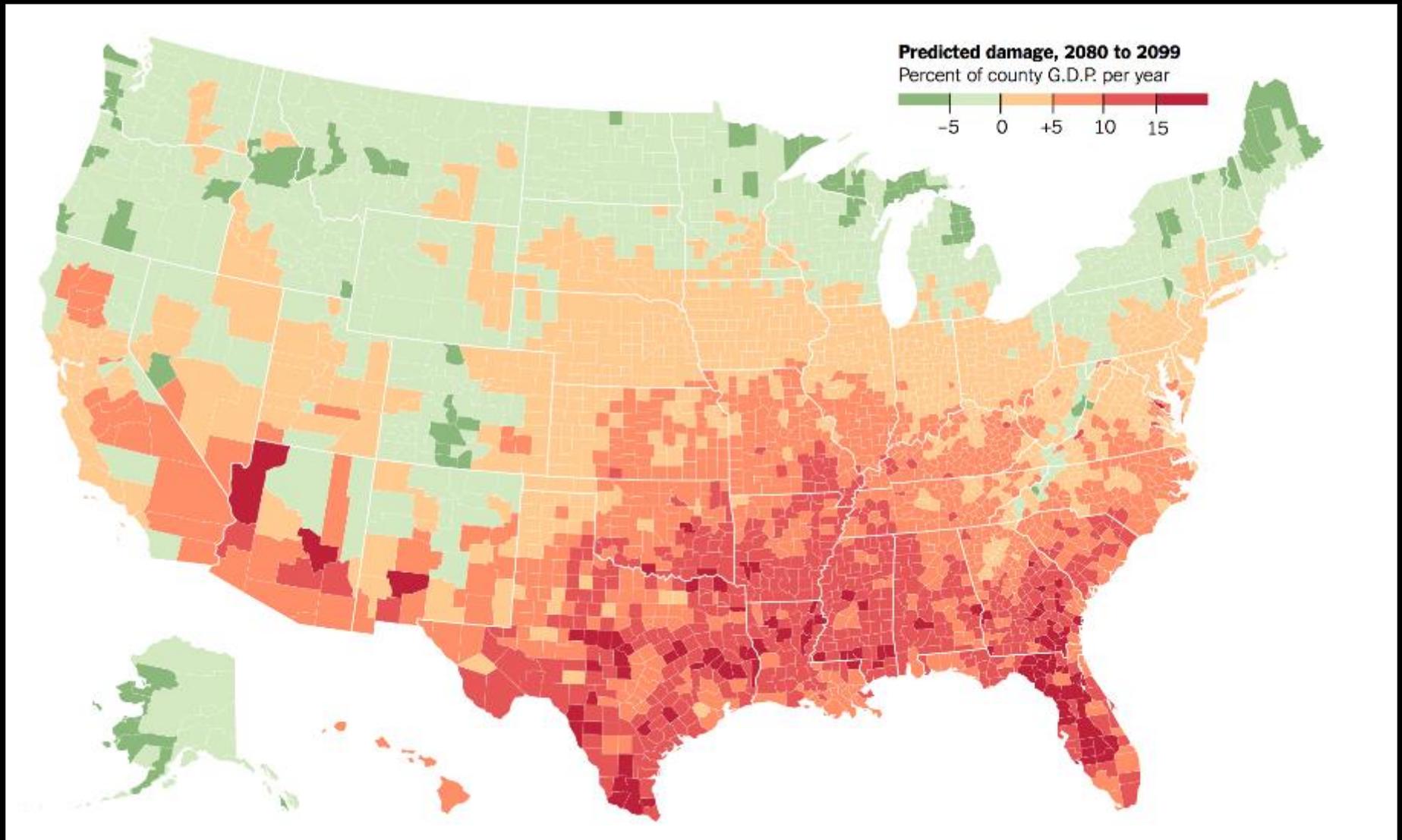


Floodwaters from Hurricane Matthew covered homes and businesses in Lumberton, N.C., on Wednesday. PHOTO: CHUCK BURTON/ASSOCIATED PRESS



Emanuel, J Contemporary Water Research & Education, 2018

Economic Challenges of Climate Change



Water and Cultural Renewal: Lumbee and Coharie Peoples



People | Place

The homeland of Lumbee people is a formidable landscape of swamp and river that dominates the terrain. A place that most would not dare tread, let alone occupy. What others see as a hostile natural environment, we see as haven and home. A place

UNCP Museum of the Southeast
American Indian (2019)



Environmental Justice Policy

Executive Order 12898 (1994)

Federal Actions to Address **Environmental Justice** in Minority Populations and Low-Income Populations

EPA Definition of Environmental Justice

“Environmental justice is the **fair treatment** and **meaningful involvement** of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies.”

Directives of Executive Order 12898

“**identify** and **address** the disproportionately high and adverse human health or environmental effects of (federal agency) actions on minority and low-income populations, to the greatest extent practicable and permitted by law.”

Environmental Justice Analyses

EJSCREEN: EPA's Recommended **first step** for decision-makers.



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EJSCREEN: Environmental Justice Screening and Mapping Tool

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Challenges of Federal Environmental Justice Analyses

N.C. TRIBAL AND URBAN COMMUNITIES

N.C. COMMISSION OF INDIAN AFFAIRS

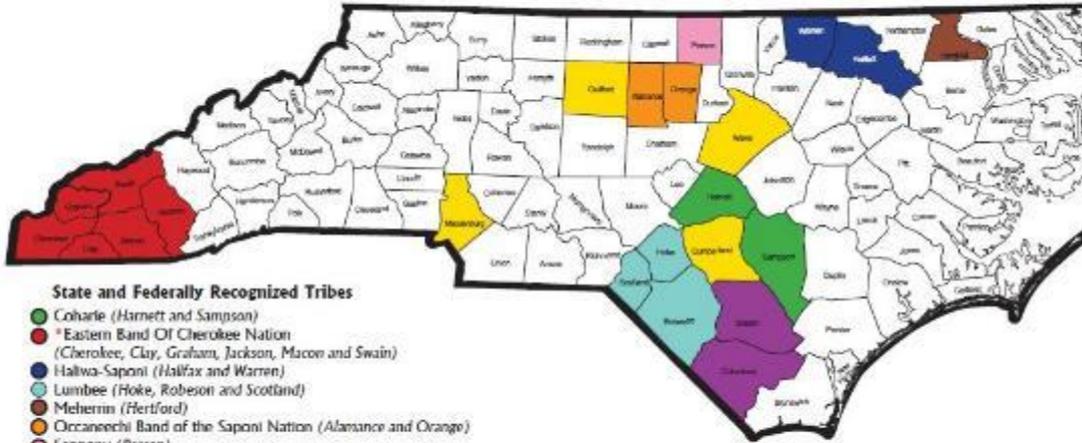


Figure 1: Statewide American Indian population of North Carolina compared to populations of counties and census blocks impacted by the proposed Atlantic Coast Pipeline



Project study area includes present-day territories of several American Indian tribes.

Census data show large American Indian populations, but agency test obscures demographics.

United Nations
DECLARATION
on the **RIGHTS**
of **INDIGENOUS**
PEOPLES

Rights of Indigenous Peoples

Article 32

1. Indigenous peoples have the right to determine and develop priorities and strategies for the development or use of their lands or territories and other resources.
2. States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.
3. States shall provide effective mechanisms for just and fair redress for any such activities, and appropriate measures shall be taken to mitigate adverse environmental, economic, social, cultural or spiritual impact.



Members of North Carolina's Lumbee tribe prepare to perform a traditional dance in 2004. Their lands lie in the path of the planned Atlantic Coast Pipeline.

more thorough analysis might have alerted regulators to large Native American populations along the proposed route and the need to consult with tribal governments.

The Dakota Access Pipeline controversy (7) demonstrates that all parties suffer when environmental justice analyses and tribal consultation are treated as meaningless rote exercises. Tribes suffer erosion of sovereignty and damage to cultural landscapes, federal-tribal relations deteriorate, and developers incur setbacks.

Developers and regulators of the Atlantic Coast Pipeline still have a window of opportunity to take these lessons to heart. Regulators can consult with tribes before making a final decision on the project later this year, and they can acknowledge the project's true impacts on vulnerable populations by addressing the flawed environmental justice analysis. Scientists can help by sharing rigorous methods, providing oversight, and partnering with vulnerable communities. It is not too late to work toward environmental justice for all.

Ryan E. Emanuel
Department of Faculty and Environmental Resources, North

Edited by Jennifer Sills

Flawed environmental justice analyses

In December 2018, the Federal Energy Regulatory Commission (FERC) issued a draft environmental impact statement

features integrate to form cultural landscapes that are unique to each tribe.

The Atlantic Coast Pipeline developer's preferred route disproportionately affects indigenous peoples in North Carolina. The nearly 30,000 Native Americans who live within 1.6 km of the proposed pipeline make up 13.2% of the impacted population in North Carolina, where only 1.7% of the

Emanuel, *Science* July 21, 2017

“(A)ll parties suffer when environmental justice analyses and tribal consultation are treated as meaningless rote exercises. Tribes suffer erosion of sovereignty and damage to cultural landscapes, federal-tribal relations deteriorate, and developers incur setbacks.”

Takeaway Messages

American Indian tribes in present-day NC have deep **cultural connections** to specific streams and wetlands; climate change, disturbance, etc. threaten those connections.

Demographic tests & screening tools are first steps in thorough environmental justice analyses; **dig deep and prepare for groundwork.**

Early, meaningful **tribal consultation** is a federal policy recommendation that applies to all Indigenous peoples



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