

## Tribal Coastal Resilience Report

October 2023 (Covers Phase I Activities from January 2020 - May 2022)

### Authors:

Beth Roach (Nottoway Indian Tribe of Virginia), Tribal Coastal Resilience Connections  
Program Director

Dr. Ryan E. Emanuel (Lumbee), Duke University

Jocelyn Painter (Winnebago Tribe of Nebraska), Duke University

### TABLE OF CONTENTS

1. <a href="#">Executive Summary</a>	2
2. <a href="#">Background and Overview</a>	3
3. <a href="#">Outreach and Engagement Activities</a>	4
4. <a href="#">Tribal Climate Adaptation Plans</a>	8
5. <a href="#">Opportunities and Challenges</a>	10
6. <a href="#">Products and Accomplishments</a>	16
7. <a href="#">Timeline and Next Steps</a>	17
8. <a href="#">COVID-19 Impacts</a>	22
9. <a href="#">#WaterStory Examples</a>	22

*This report was produced under a contract from the Albemarle Pamlico National Estuary Partnership (APNEP) in partnership with the NC Commission of Indian Affairs, NC State University (principal investigators now at Duke University), and the Virginia Coastal Policy Center at William and Mary Law School. The information herein does not reflect the opinions, positions, or policies of the NC Commission on Indian Affairs, APNEP and its Leadership Council, nor the NC Department of Environmental Quality, its host agency.*

*Presented to the Albemarle-Pamlico National Estuary Partnership Leadership Council  
October 2023*

# Tribal Coastal Resilience Report (October 2023)

## 1. Executive Summary

The Tribal Coastal Resilience Team formed in 2020 in response to an invitation from the Albemarle-Pamlico National Estuary Partnership (APNEP) to examine ways in which agencies involved in coastal climate resilience planning might better engage and coordinate with tribal nations in the region. The team's overarching goal is to increase awareness among tribal communities around the risks and threats of climate change, and to foster discussions about adapting to these changes. Project activities have raised awareness about coastal resilience planning among tribal communities in North Carolina and Virginia, and they have strengthened networks and relationships between state agencies, tribal governments and non-tribal entities such as the North Carolina Commission of Indian Affairs. These networks and relationships will be important conduits for information-sharing, decision-making, and other activities related to climate resilience planning. To date, the team's work has been supported by funding from APNEP, which partly covered efforts by team members at North Carolina State University and the North Carolina Commission of Indian Affairs.

Team members have participated in a wide range of public engagement activities - including conferences, cultural events, and social media - that together reinforce the idea that the APNEP region (Figure 1) is a shared homeland for many tribal nations and Indigenous peoples. Even though only a few of these groups live within the APNEP region today, large numbers of Indigenous peoples in North Carolina, Virginia, and elsewhere consider the region to be their ancestral home. These groups include federally recognized and state recognized Tribes, as well as Indigenous communities who are not formally recognized as tribal nations by outside entities. Together, these groups are all part of the complex social and political strata that exist within the APNEP region today. It is important to recognize that Indigenous peoples' connections to the APNEP region extend back hundreds or thousands of years, but more than 400 years of colonialism has altered Indigenous peoples' ability to engage with their ancestral home.



Figure 1: Watersheds of the Albemarle-Pamlico Estuary. The APNEP region is bounded in black.

Climate resilience planning efforts that aim to uphold environmental justice and to respect the rights of Indigenous peoples must first acknowledge the longstanding harms of colonialism in the APNEP region. A promising path forward will involve deliberate efforts by resilience planners and practitioners to foreground the lived experiences of Indigenous peoples who still hold cultural ties to the region and who - in many cases - have only recently begun to reestablish these ties. Given the complexity of tribal identities and relationships to land in the region, decision-makers must be inclusive in identifying Indigenous communities. Methods of communication and timelines for resilience planning must be developed in collaboration with these communities. Decision-makers must also recognize that even well-staffed tribal governments with ties to the region may not have appointed or paid positions to contribute to

## **Tribal Coastal Resilience Report (October 2023)**

this work. With that in mind, ample time and compensation should be provided to members of Indigenous communities who provide feedback and recommendations, or who assist in other ways with resilience planning.

This report highlights some of the team's recent experiences working with Indigenous communities who have ties to the APNEP region. Although our efforts were affected by the COVID19 pandemic, we were able to adapt our engagement activities to online venues and in other ways. This report also highlights early results from a review of tribally-led climate resilience plans from across Turtle Island (i.e., North America). This work aims to give APNEP planners and practitioners an idea of what topics they are likely to encounter in future engagements with Tribes and Indigenous peoples. It is part of a larger dissertation by Duke University PhD student Jocelyn Painter, who works under the supervision of Ryan Emanuel in the Nicholas School of the Environment.

*This report was produced under a contract from the Albemarle Pamlico National Estuary Partnership (APNEP) in partnership with the NC Commission of Indian Affairs, NC State University (principal investigators now at Duke University), and the Virginia Coastal Policy Center at William and Mary Law School. The information herein does not reflect the opinions, positions, or policies of the NC Commission on Indian Affairs, APNEP and its Leadership Council, nor the NC Department of Environmental Quality, its host agency.*

## **2. Background and Overview**

This project began as a series of discussions with partners about needs and gaps in resilience planning, both regionally and at a local level. An early gap that we identified was a lack of participation by North Carolina Tribes during community resilience workshops associated with North Carolina's emerging climate policy, Executive Order 80 (Commitment to Address Climate Change and Transition to a Clean Energy Economy). Some Tribes in the region are actively involved in efforts to strengthen connections to land and water in their territories for themselves and for generations to come, and climate change complicates their efforts.

One key example of work undertaken by tribal nations comes from the Coharie Tribe, which has led a multi-year effort, the Great Coharie River Initiative. The project aims to restore access to their namesake river for recreation, sustenance, and cultural purposes. Project members spent time with tribal members learning about the Great Coharie River Initiative as a model for capacity-building in tribal communities throughout the region. Mutual interest grew in working across state lines in the shared waterways of the Albemarle-Pamlico region. Input gathered from Tribal representatives and community leaders assessed interest and needs.

Project members also began to gather input from resilience practitioners and agency staff. This initiative is tribal led: the funding came through APNEP, but it was set up to run through the NC Commission of Indian Affairs with subcontracts to North Carolina State University and William & Mary Law School's Virginia Coastal Policy Center. In June of 2020, a Tribal Resilience Program

## Tribal Coastal Resilience Report (October 2023)

Director was hired through the N.C. Commission of Indian Affairs (NCCIA) and the project was launched.

We are creating a network of tribal members who strive to implement similar work in their own communities. To help guide future planning, we have scholarly research led by Dr. Ryan Emanuel (Lumbee of North Carolina); Jocelyn Painter (Winnebago of Nebraska), PhD student; and Beth Roach (Nottoway Tribe of Virginia). Stacey Feken of the Albemarle Pamlico National Estuary Partnership and Elizabeth Andrews of William & Mary's Virginia Coastal Policy Center support policy development between Virginia and North Carolina.

### 3. Outreach Activities

#### 3.1 Rationale

This project employs a two pronged approach: community outreach and engagement as well as a review of existing tribally-led climate resilience or adaptation plans. Early on, the project team launched a social media campaign to get a conversation started. We encountered complications around identity and representation of Indigenous peoples with ties to the APNEP region. We describe complications and potential remedies later in this report. The project team continues to explore and develop approaches and partnerships that are described here as a means to gather and interpret traditional ecological knowledge, restore kinship connections, and develop climate adaptation plans for a rapidly changing climate.

#### 3.2 Outreach Activity: #WaterStory

On Indigenous Peoples Day 2020 (October 12, 2020), we launched the #WaterStory social media campaign to create a conversation about waters in and around the APNEP region (Figure 2). People responded with images and text to represent what they loved about their water, what threats concerned them, and what they hoped for the water. Contributions included songs, poetry, quilt and regalia art, as well as many beautiful pictures from APNEP waters and from



Figure 2: Social media post advertising the launch of the #WaterStory outreach and engagement campaign.

other places. The campaign involved posts to Facebook and Twitter with most of the responses coming from Facebook. The audience for the outreach and engagement campaign was limited to those Native people who actively used these two social media platforms. Example photos are shown below (Figure 3), and samples of text responses are attached to the end of this report.

## Tribal Coastal Resilience Report (October 2023)



Figure 3: (L-R) Meherrin members on their tribal grounds; Quilt by Denise Walters, Nottoway Indian Tribe of Va; Greg Stephenson (Meherrin) and Beth Roach (Nottoway) participate in a Water Walk over the Chickahominy River; and a member of North Carolina Native Youth Organization.

### 3.3 Outreach Activity: Terrastories

The project team met several times with Rudo Kemper from Terrastories, a geospatial storytelling platform, to discuss plans for sharing our own water stories using that platform. This Terrastories platform is simple and intuitive to use, compared to commercial and institutional digital mapping products such as ArcGIS. However, one drawback is that its mobile mapping program, Mapeo, runs on Android related software and is not currently compatible with Apple devices. This limits its use in the field, however using a web-based version to edit a story map is possible on both Windows and Apple computers. Examples of current Terrastories projects include Ohneganos with the Six Nations of the Grand River and the Waorani of the Amazon (Figure 4).



Figure 4: Materials shared with team members during meetings with Rudo Kemper (Terrastories).

Ohneganos is a water research program that uses Terrastories for digital mapping of the Six Nations of the Grand River territory in Canada. The application illustrates the relationship between Haudenosaunee people, water, land, and well-being. Integrated with audio and video recordings, Indigenous maps help document important cultural areas for the purpose of conservation and preservation using a process known as ‘counter-mapping’.<sup>1</sup>

The Waorani draw detailed community maps, take GPS points of important sites, and then add all this information into Mapeo to create the data for printed and interactive maps. Their maps illustrate their deep traditional and ecological knowledge: they are identifying hunting and fishing sites; places they collect fibers for weaving, palms

<sup>1</sup> [ohneganos.com](http://ohneganos.com)

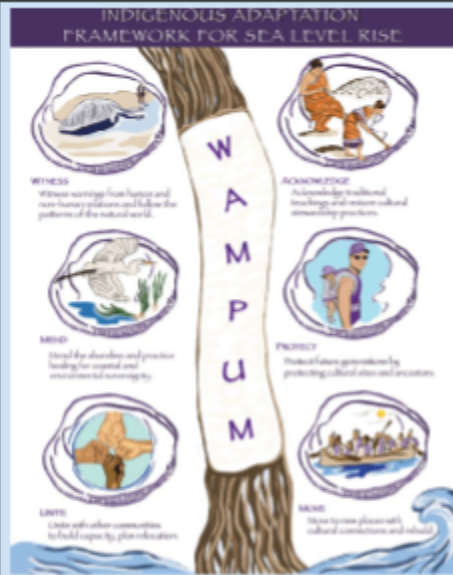
## Tribal Coastal Resilience Report (October 2023)

for thatching, natural dyes; areas frequented by different animals and where particular ecosystems predominate; medicinal plants and historical and sacred sites. Data are collected, edited and managed by the Waorani mapping team.<sup>2</sup>

We discussed ways to use the platform to document climate threats and vulnerabilities faced by Indigenous peoples with ties to the APNEP region. We agreed that the #WaterStory campaign could expand into a project on the Terrastories platform, but those efforts are beyond the scope of this first phase of the project. APNEP partners or tribal communities themselves could launch a Terrastories project with funding to help train data collectors.

### 3.4 Outreach Activity: Scouting Paddles and Hikes

Team and community members hiked and paddled in the APNEP region and elsewhere in the Coastal Plain to scout prospective locations for future hikes and paddles focused on strengthening cultural connections between people and water. Discussions focused on ways to implement the [WAMPUM framework](#) (Box 1) and on ways to engage other efforts, including the Coastal Futures Conservatory at the University of Virginia. Select trips are shown in Table 1.



**Box 1: WAMPUM Framework**  
The WAMPUM framework is a conceptual model of adaptation to sea level rise that was proposed by Kelsey Leonard (Shinnecock, University of Waterloo). The model focuses on Northeastern tribes but has implications for the APNEP region. The acronym derives from wampum, a bead traditionally manufactured from quahog and whelk shells. Graphic from Leonard, K. (2021). *WAMPUM Adaptation framework: eastern coastal Tribal Nations and sea level rise impacts on water security. Climate and Development*, 13(9), 842-851 DOI: 10.1080/17565529.2020.1862739

Table 1: Scouting Paddles and Hikes

Location	Date	Focus or Observation	Audio/Image File(s) and Links to Videos
Lake Mattamuskeet	9/5/20	Poor Water Quality	<a href="#">Mattamuskeet Apples</a> Photo credit: Octagon House
Bertie Beach	10/12/20	#WaterStory Launch	<a href="#">Facebook Live Launch</a>
Conaby Creek	11/5/20	Tributary to Roanoke	<a href="#">Facebook Live Update</a>
Phelps Lake	11/30/20	Good Water Quality	<a href="#">Tundra Swans Arrive</a>
Pocosin Lakes	2/9/21	Bird Watching	<a href="#">Flock of Sparrows</a>

<sup>2</sup> [digital-democracy.org/ourwork/waorani](https://digital-democracy.org/ourwork/waorani)

## Tribal Coastal Resilience Report (October 2023)

Location	Date	Focus or Observation	Audio/Image File(s) and Links to Videos
Site Y	2/21/21	Pocosin Exploration	<a href="#">Ducks Flying Over</a>
Phelps Lake	3/4/21	Virgin Cypress Forest	<a href="#">Sunset in Cypress Stand</a>
Chowan River	3/10/21	Cypress Trees	<a href="#">Cypress Trees</a>
Chub Sandhill	3/20/21	Spring Equinox	<a href="#">Tree Canopy with Birds and Wind</a>
Albemarle Sound	4/7/21	Sturgeon Habitat	<a href="#">Facebook Live Update</a>
Lake Phelps	8/25/21	Search for Sunken Canoes	<a href="#">Ryan Paddling</a>
Eastern Shore	10/2021	Sea Level Rise and Erosion	<a href="#">Formally occupied island</a>

### 3.5 Outreach Activity: ArcGIS Learning Activity

In partnership with William and Mary's Institute for Integrative Conservation, team member Beth Roach co-leads an intertribal ArcGIS training program focused on the Nottoway Tribe of Virginia and the Nansemond Indian Nation territories. Prior to the launch of this project, Nikki Bass, Tribal Councilwoman of the Nansemond Indian Nation, worked with a consultant to create an ArcGIS story map, [Indigenous Life on the Nansemond River, Our Story of Cultural Revitalization through River Stewardship](#). That experience prompted a pilot project to consider the feasibility of ArcGIS for community mapping projects. The Nottoway Tribe of Virginia tried new mapping techniques during their annual Clean River Day (Figure 5). Members used a survey to upload data about what was found, including types of litter, natural features, and cultural phenomena.

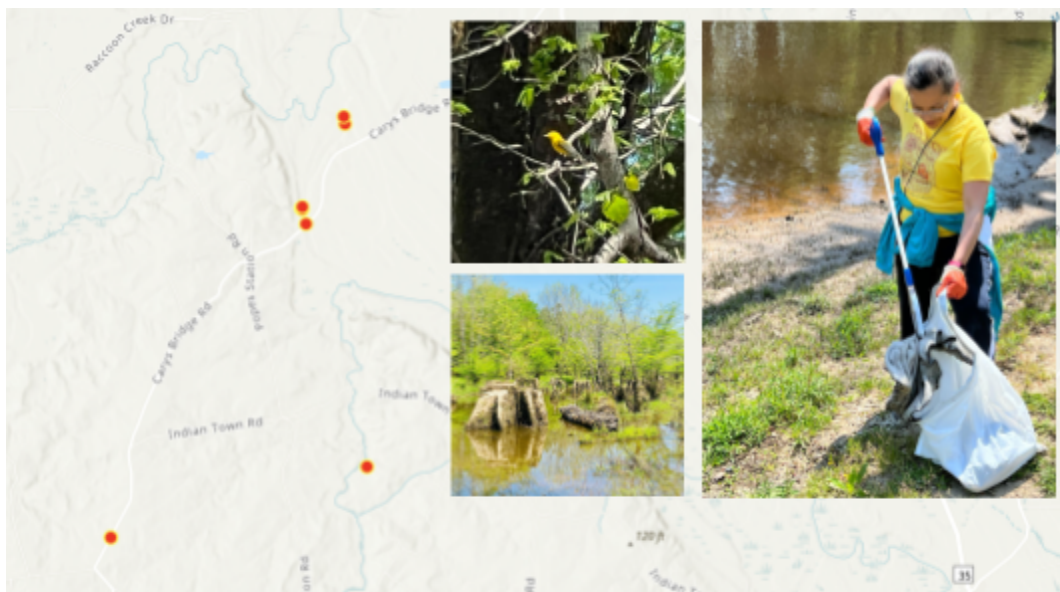


Figure 5: Storymap and images from Nottoway River clean-up.

## 4. Tribal Climate Adaptation Plans

### 4.1 Rationale

As part of her dissertation research, team member Jocelyn Painter conducted a literature review and preliminary text analysis of climate adaptation plans generated by tribal communities throughout Turtle Island. One purpose of the review is to identify recurring themes that may exist among these plans related to Indigenous knowledge systems, cultural connections to land and water, or perspectives on climate adaptation that may differ from plans that exist for non-Indigenous communities. Painter identified a total of 45 tribal adaptation plans aggregated by the National Congress of American Indians, an organization that advocates for the interests of state and federally recognized Tribes in the United States. Painter mapped the geographic area covered by each plan (Figure 6) and then acquired a PDF version of each plan's text for further analysis. Links to plans included in Figure 6 can be found on the National Congress of American Indians website: [Climate Action: Tribal Approaches](#). The ultimate goal is to conduct a systematic study to identify key themes that emerge from the plans and to compare the plans to climate adaptation or resilience plans prepared by non-Indigenous entities (e.g., municipalities, regional government councils, etc.). We share preliminary results in the following sections.



Figure 6: Geographic areas covered by tribal climate resilience plans in the United States.





## **Tribal Coastal Resilience Report (October 2023)**

Recognition status is not an indicator of tribal connections to land or water. The absence of state recognized Tribes from the sample may point to the lack of resources for these Tribes to conduct climate adaptation planning, it may stem from state recognized Tribes' lack of jurisdiction or control over their present-day or ancestral territories, or it may stem from other factors. Given that many Tribes with connections to the APNEP region are state-recognized and not federally recognized, the results of the Atlas.ti analysis will need to be interpreted carefully.

### **5. Opportunities and Challenges**

#### **5.1 Potential Partnerships**

As part of this effort, the NCCIA partnered with The Climate Service to explore conducting climate risk assessments. In 2021, The Climate Service contacted the NCCIA and offered to develop an initial [report](#) on climate change threats over the next 80 years using a financial analysis of risks and opportunities associated with tribal communities in Virginia and North Carolina. The report focused specifically on implications for the Meherrin Indian Nation, the Haliwa Saponi Tribe, and the Nottoway Tribe of Virginia. For these specific communities, extremes in temperature, stress on water resources, and increased river (fluvial) flooding prevail as well as risks while rising energy costs and lagging technological advances.<sup>5</sup> The report is an example of a partnership that adapts existing technical analyses to provide useful information to tribal communities. Opportunities exist to further analyze these findings (or similar technical results) as part of adaptation and resilience planning for tribal communities.

#### **5.2 Challenges for First Contact Peoples**

The APNEP region was an area of first contact between Indigenous peoples and European colonists, with attempts by Europeans to settle the region as early as the 16th century.<sup>6</sup> Colonial militias attempted to eradicate Indigenous peoples from the APNEP region more than 300 years ago, and former reservation lands exist in the region as reminders of early efforts to expropriate Indigenous lands. These events may seem like ancient history to 21st century climate resilience planners and practitioners, but for tribal communities that continue to live in or hold ties to the region, these events are sources of trauma that continue to affect relationships with land, water, and people.

The legacy of colonialism is unresolved, and - knowingly or not - government agencies and other non-Indigenous actors can extend the harmful legacy through actions that do not recognize and respect Indigenous peoples' connections to their ancestral lands. The United Nations Declaration on the Rights of Indigenous Peoples affirms that Indigenous groups have inherent rights to "freely determine their political status and freely pursue their economic, social, and cultural development."<sup>7</sup> Based on the personal and professional experiences of team

---

<sup>5</sup> Implications are similar to those previously identified for Lumbee tribal territory using the same climate model scenarios in Emanuel, R.E. (2018). "Climate Change in the Lumbee River Watershed and Potential Impacts on the Lumbee Tribe." *J. Contemporary Water Research & Education* 163(1).

<sup>6</sup> Michael Oberg gives a detailed accounting of colonial violence associated with the 16th century effort to colonize Roanoke Island in Oberg, M. L. (2013). *The Head in Edward Nugent's Hand*. U. of Penn. Press.

<sup>7</sup> UN General Assembly, United Nations Declaration on the Rights of Indigenous Peoples : Resolution adopted by the General Assembly, 2 October 2007.

## Tribal Coastal Resilience Report (October 2023)

members, we advise that when difficulties arise, planners and practitioners should keep in mind the ongoing effects of colonialism in the region, aim to promote the inherent rights of Indigenous peoples, and - if called on to resolve conflict - err on the side of inclusivity. We briefly explain these recommendations here.

First, when environmental professionals contemplate Indigenous peoples' ties to the region and how these ties factor into planning and decision-making, it is critical to recognize that some popular resources for identifying Indigenous territorial claims fail to capture the complex reality of Indigenous peoples' historic and present-day connections to place. For example, the US Census Bureau's ["My Tribal Tool"](#) provides detailed geospatial and demographic data for tribal communities, but the tool does not depict cultural ties to areas outside of present-day reservations, state-designated tribal areas, or other jurisdictions. According to this tool, there would be little reason to engage with Indigenous peoples during planning or decision-making about the APNEP region. The issue is further complicated by popular web-based resources such as [native-land.ca](#), a tool that purports to show Indigenous land claims for every part of North America. Notably, the datasets that drive this resource were derived from pre-existing maps without regard for contextual information including: time frames depicted by maps (e.g., pre-Contact, Colonial, present-day); sources and purposes of maps (e.g., military operations against Indigenous peoples); and whether the depicted boundaries are contested or controversial. Moreover, the tool was created without the knowledge or consent of Indigenous peoples, and yet the website actively solicits corrections from Indigenous people - creating new labor for people who never requested such a tool, but now feel compelled to participate in its upkeep due to the widespread use of the tool by academics, practitioners, and other parties. These examples highlight the critical importance of building relationships with tribal communities in the broader region surrounding an area of interest; those communities can provide the most accurate information about present-day and historical territorial claims.

Another aspect of the region's colonial legacy is the patchwork of recognition statuses (or lack of status) held by tribal communities with ties to the region. The political implications of state and federal recognition (or non-recognition) may create obstacles that prevent various groups from working together or choosing to engage at all in planning processes. A multitude of factors further complicate relationships among tribal communities and with outside entities: recognition and identities are heavily influenced by the history of English colonization in the APNEP region; early treaties exploited power imbalances and actually weakened Indigenous communities; enslavement of Indigenous and African people was a common practice; settlers expropriated Indigenous territories through early land grants or by squatting; and the enactment discriminatory public policies such as Jim Crow Segregation and Pleckerism.

Planners and practitioners should note that English colonial records, which make up the bulk of the earliest written records in the APNEP region, tend to focus mainly on Indigenous peoples with whom the English had direct trade or conflict. Indigenous peoples with whom English had little or no dealings are sparsely mentioned or absent altogether from written records. Historians recognize this phenomenon, but it is essential to keep in mind that records paint an incomplete picture of the communities that historically and currently exist in the APNEP region. Sparse

## Tribal Coastal Resilience Report (October 2023)

records also complicate the state and federal recognition process, thereby impacting the sovereign rights of Indigenous communities. Even though state and federal recognition are not markers of indigeneity, they are instruments of power, and they grant access to legal frameworks and other resources that allow tribal communities to exercise their sovereignty in the United States. Limitations to recognition, therefore, can have detrimental effects on Indigenous peoples.

Planners and practitioners should understand that the entire APNEP region was taken from Indigenous peoples, including the ancestors of tribal peoples who still live in the region and elsewhere today. Prior to the American Revolution, several tribal communities, including the Tuscarora, Nottoway, Chowanoke, Meherrin, Nansemond, Weyanoke, and Mattamuskeet, had reservations with boundaries delineated by formal agreements and treaties with English or British powers. Following the American Revolution, the nature of many of these relationships changed. Another critically important factor to consider is the deep and lasting impact of the enslavement of Indigenous and African people within the Albemarle-Pamlico watershed. The APNEP region experienced slave trading, which tore families apart and pitted individuals and communities against one other. Slavery, discrimination, and the racialization of Indigenous identity all were factors that contributed - and still contribute - to intergenerational trauma, not to mention socioeconomic disparities that persist in rural tribal communities to this day.<sup>8</sup>

During Jim Crow Segregation, white supremacist policies in Virginia and North Carolina led to the misidentification of Indigenous peoples in both states. During the early 20th century, Virginia officials practiced the especially egregious act of altering Indigenous peoples' vital records to erase their identities. North Carolina officials tended to dismiss Indigenous peoples' identity claims or talk over them in harmful ways. Both states' practices have left behind documentary records that have made it difficult for Tribes to exercise their sovereignty in various ways, including through the establishment of government-to-government relationships with the United States.<sup>9</sup>

With all of this in mind, the APNEP region in present-day Virginia and North Carolina comprises shared homelands for large Indigenous populations (more than 150,000 people) that still live in these two states today. Several large tribal communities are presently based in each state, and these Tribes represent the full spectrum of recognition statuses. Some Tribes with ties to the APNEP region have full federal recognition, some are recognized by states, some have no state or federal recognition, and the Lumbee Tribe exists in a singularly unique position with partial federal recognition under the 1956 Lumbee Act. Local, state, and federal officials have yet to implement equitable mechanisms to incorporate the perspectives of all of these Tribes into their climate adaptation planning. This work needs to be accomplished in collaboration and consultation with these Tribes; after all, their deep cultural heritage is severely threatened by

---

<sup>8</sup> Anthony Wallace discusses the long-term effects of trauma associated with colonial violence in the APNEP region throughout Wallace, A. F. (2012). *Tuscarora: A History*. SUNY Press.

<sup>9</sup> Some of these policies and their lasting impacts are described and analyzed in detail in Lowery, Malinda Maynor. *Lumbee Indians in the Jim Crow South: Race, Identity, and the Making of a Nation*. Univ of North Carolina Press, 2010.

## Tribal Coastal Resilience Report (October 2023)

sea level rise, erosion, salinization, and other climate change impacts in the APNEP region. The first peoples of the region have endured the negative impacts of colonialism for more than four centuries, and climate change adds to this long and traumatic history. Given that environmental justice principles include recognition of vulnerable communities and their perspectives, planners and practitioners who seek to implement just climate adaptation must find ways to bring Indigenous perspectives to the fore.

The Albemarle Pamlico Watershed spans multiple federal regulatory jurisdictions (e.g., EPA Regions 3 and 4), two different states, many different localities, and numerous organized and self-identifying tribal groups. The situation creates a complicated and diverse landscape in which tribal interests could be easily overlooked. Regardless of recognition status, excluding Indigenous peoples from meaningful input on decisions that impact their current or ancestral homelands is an environmental justice issue. Ultimately, these decisions have the potential to alter the identities and ways of life for Indigenous peoples who still retain connections to their ancestral homes.

Table 2 lists some of the historical and present-day tribal communities with cultural ties or other claims to the APNEP region. The list is not exhaustive, but it is intended to illustrate the complex and diverse nature of Indigenous political identity in the region. There are three major linguistic groups represented: Algonquian, Iroquian, and Siouan. The APNEP region and the Coastal Plain more generally supported large and diverse Indigenous populations who farmed, hunted, fished, traded, and lived throughout the region since time immemorial. Indigenous communities are not static, and major disruptions connected to colonization prompted communities to forge and re-forge political identities and allegiances over time. Indigenous communities today may descend from a single group that existed at first contact with Europeans, or they may be amalgamations of groups who survived war, disease, and colonial violence centuries ago.

Today, tribal nations or communities may identify themselves using geographic place names, or they may use names that their ancestors used to identify themselves. Some communities may even go by names given to them by other Indigenous peoples, which often occurred due to the arbitrary nature of historical records. There are also Indigenous communities whose ancestors were removed or displaced to areas far away from the APNEP region, and there are communities that arrived after colonization. All deserve to be remembered, considered, and included in climate adaptation and resilience work.

When researchers and practitioners consider historical or present-day tribal territorial claims, it is essential to understand that web-based resources (e.g., US Census “My Tribal Area,” [native-land.ca](http://native-land.ca)) can provide clues to these claims, but the information may be incomplete or incorrect. Even Table 2 (below) is not intended to be exhaustive. For this reason, it is essential that entities such as APNEP - at minimum - seek out expertise from individuals (e.g., collaborators, consultants, liaisons) who can provide reliable and nuanced perspectives on Indigenous connections to place. Better yet, APNEP and other entities should form direct working relationships with tribal communities through permanent and meaningful structures

## Tribal Coastal Resilience Report (October 2023)

(e.g., Indigenous advisory council, regular workshops and trainings tailored to tribal interests, etc.). Building and maintaining these relationships will ensure that future planning and decision-making efforts complement Indigenous peoples' values and visions for their homelands.

*Table 2: Select Historical and Present-Day Indigenous Communities of the APNEP Region*

Name	Tim Period	Government Recognition	Language Group(s)	Presently Centered If Known	Reference
Cheroenhaka	Present	VA	Iroquoian	Southampton, VA	<a href="http://cheroenhaka-nottoway.org">cheroenhaka-nottoway.org</a>
Chesapeake	Historical	None	Algonquian	South Hampton Roads, VA	
Chowanoke	Both	None	Algonquian	Bertie, Chowan, Gates, and Hertford Counties, NC	<a href="http://chowanokenation.com">chowanokenation.com</a>
Coharie	Historical	NC	Iroquoian	Sampson and Harnett Counties, NC	
Coree	Historical	None	Iroquoian/ Algonquian		
Haliwa-Saponi	Both	NC	Iroquoian/ Algonquian/ Siouan	Halifax and Warren Counties, NC <sup>10</sup>	<a href="http://haliwa-saponi.org">haliwa-saponi.org</a>
Lumbee	Historical	NC <sup>11</sup>	Iroquoian/ Algonquian/ Siouan	Robeson and surrounding Counties, NC	<a href="http://lumbeeTribe.com">lumbeeTribe.com</a>
Machapunga	Both	None	Algonquian	Self-identifying descendents in APNEP	
Meherrin	Both	NC	Iroquoian	Hertford and surrounding Counties, NC	
Nansemond	Both	US, VA	Algonquian	Chesapeake, Hampton, Newport News, Norfolk,	<a href="http://nansemond.org">nansemond.org</a>

<sup>10</sup> Territory extends into Franklin and Nash Counties, NC.

<sup>11</sup> Partial federal recognition under PL84-570, the Lumbee Act of 1956.

## Tribal Coastal Resilience Report (October 2023)

Name	Tim Period	Government Recognition	Language Group(s)	Presently Centered If Known	Reference
				Portsmouth, Suffolk, Virginia Beach, and Isle of Wight County, VA	
Nottoway	Both	VA	Iroquoian	Surry, Sussex, and Southampton Counties, VA	<a href="http://nottowayindians.org">nottowayindians.org</a>
Occaneechi Band of the Saponi Nation	Both	NC	Siouan	Alamance, Caswell and Orange Counties, NC	<a href="http://obsn.org">obsn.org</a>
Pasquotank	Historical	None	Algonquian		
Roanoke-Hatteras & Mattamuskeet	Both	None	Algonquian	Self-identifying descendents in APNEP <sup>12</sup>	<a href="http://ncalgonquians.com">ncalgonquians.com</a>
Six Nations of the Grand River	Historical	CAN	Iroquoian	Ontario, Canada	<a href="http://sixnations.ca">sixnations.ca</a>
Skaroreh Katenuaka (Tuscarora)	Both	None	Iroquoian	Bertie County, NC	<a href="http://skngov.com">skngov.com</a>
Skarure Woccon (Tuscarora)	Historical	None	Iroquoian	Brunswick, Bladen, Columbus and Pender Counties, NC	<a href="http://skarurewoccon.com">skarurewoccon.com</a>
Tuscarora Nation of NC	Historical	None	Iroquian	Robeson and Scotland Counties, NC	<a href="http://tuscaroranationnc.com">tuscaroranationnc.com</a>
Tuscarora Nation of NY	Historical	US	Iroquian	Niagara County, NY	

<sup>12</sup> Roanoke- Hatteras of Dare County, North Carolina & Mattamuskeet of Hyde County, North Carolina. Self-identifying members still live in the area as well as Hampton Roads in Virginia

## Tribal Coastal Resilience Report (October 2023)

Name	Tim Period	Government Recognition	Language Group(s)	Presently Centered If Known	Reference
Weapemeoc	Both	None	Algonquian		
Woccon	Historical	None	Siouan		
Yeopim	Historical	None	Algonquian		

## 6. Products and Accomplishments

### 6.1 Online and In-Person Events

Team members participated in several webinars, online panels, and in-person events. Table 3 highlights key events.

Table 3: Online and In-Person Events

Event (Link)	Date	Participants	
<a href="#">North Carolina Indian Unity Conference</a>	March 2020	Ryan Emanuel, Stacey Feken, Jocelyn Painter	Listening to People of Land and Water: Native Nations and Coastal Resilience at the annual conference hosted by the United Tribes of NC, a 501(c) 3 nonprofit corporation established in 1982 to provide greater coordination and unity among the American Indian Tribes and organizations of the State of North Carolina who work to promote educational, economic, religious, charitable and cultural activities for American Indian people. Intended to kickoff the project but travel was restricted for many due to Covid. <u>Team members attended and networked with those present.</u>
<a href="#">25th Annual American Indian Heritage Celebration</a>	Nov 2020	Jocelyn Painter, Beth Roach	Climate Resilience in Tribal Communities: conversation relating to this collaboration that supports tribal communities in considering opportunities and strategies for increased resilience to climate change. <u>Team presentation.</u>
<a href="#">American Indian Tribes of Virginia and the Chesapeake Bay</a> (Chesapeake Bay Foundation)	Nov 2020	Beth Roach <a href="#">Link to video</a>	Members of Nansemond, Nottoway, Piscataway, and Upper Mattaponi Tribes discussed perspectives on Chesapeake Bay issues and beyond. <u>Team member as panelist.</u>
<a href="#">North Carolina</a>	March	Jocelyn	Tribal Coastal Resilience Connections



## Tribal Coastal Resilience Report (October 2023)

Event (Link)	Date	Participants	
<a href="#">Indian Unity Conference</a>	2021	Painter Beth Roach <a href="#">Link to video</a>	overview workshop at virtual conference. <u>Team members presented.</u>
Earth Day Live	April 2021	Beth Roach <a href="#">Link to video</a>	Recorded while paddling on the Albemarle Sound. Video kicked off an international event that included remarks by Pope Francis. <u>Team member participated.</u>
<a href="#">NC Breathe Conf.</a> (Clean AIRE NC)	April 2021	Beth Roach Jocelyn Painter <a href="#">Link to video</a>	Tribal Coastal Resilience Connections overview at conference to learn about current issues at the intersection of health, equity, and climate change and, using sound science, make recommendations to decision-makers aimed at protecting those most vulnerable to the health impacts of climate change. <u>Team member presented.</u>
<a href="#">We Still Remain</a> , Conf. Arizona State University/UNC Pembroke	May 2021	Beth Roach Jocelyn Painter <a href="#">Link to video</a>	Promoting Southeast Indigenous Research, Scholarship, and Collaboration. Participated on a panel focused on Indigenous Data. <u>Team members presented.</u>
<a href="#">Carolinas Integrated Sciences and Assessments Conf.</a>	May 2021	Ryan Emanuel Elizabeth Andrews Stacey Feken <a href="#">Link to video</a>	Organized a session for team members to report on activities conducted during initial phases of the Tribal Resilience Project and provide initial recommendations on best practices for agency representatives and resilience practitioners to engage Tribal communities in climate resilience and adaptation planning. (55 attendees - 15 in-person, 40 virtual) <u>Team presentation.</u>
<a href="#">Choose Clean Water Conference</a> Indigenous Water Panel	May 2021	Beth Roach <a href="#">Link to video</a>	Members of the Nottoway, Piscataway, and Upper Mattaponi Tribes discussed challenges and opportunities to uplift and authentically engage with Indigenous community leaders. <u>Team member presented.</u>
NC Coastal Resilience Community of Practice	Sep 2021	Beth Roach Stacey Feken <a href="#">Link to notes</a>	Overview of the project and next steps with an interdisciplinary group of coastal professionals (agency, local government, non-profits) working on ecosystem and community resilience. <u>Team members presented.</u>

## Tribal Coastal Resilience Report (October 2023)

Event (Link)	Date	Participants	
<a href="#">Southeast Climate Adaptation Center “Stories of Culture &amp; Adaptation”</a>	Nov 2021	Beth Roach <a href="#">Link to video</a>	EPA Administrator Michael Regan launched this event followed by a Gullah/Geechee greeting from Chieftess Queen Quet and panel discussion on climate change impacts to marginalized communities. <u>Team member presented.</u>
<a href="#">United Nations Environment Program</a>	Feb 2022	Beth Roach <a href="#">Link to Video</a>	<u>Team member as panelist.</u>
Earth Day Lunch and Learn Panel hosted by the NC Dept of Commerce	April 2022	Beth Roach	A virtual “Lunch and Learn” panel featured Beth Roach and Dollie Burwell. The panel was moderated by Jennifer Mundt, Assistant Secretary of Clean Energy Economic Development. <u>Team member as panelist.</u>
<a href="#">Environmental Humanities At Scale</a> Water Justice Panel (University of Virginia)	April 2022	Beth Roach	Presentation on capturing water stories from indigenous perspectives to assist in climate resiliency planning as a public fellow for UVA's Coastal Futures Conservatory. <u>Team member presented.</u>
Water Resources Restoration Improvement Team	Aug 2022	Beth Roach Stacey Feken	Overview of the project and next steps with a state interagency group of water resources professionals. Panel featured tribal / state agency coordination on basin planning and work in Cape Fear region tribal communities. <u>Team members as panelists.</u>

### 6.2. Tribal Policy Accomplishments

Interactions between team members and tribal communities led to formal articulations of tribal policies. These include:

- Lumbee Tribal Consultation Mandate<sup>13</sup>
  - With input from Emanuel, the Lumbee Tribal Council passed an ordinance that laid out expectations for government-to-government consultation on environmental permitting within present-day tribal territory.
- Nottoway Tribal Consultation Mandate<sup>14</sup>
  - With input from Roach, the Nottoway Tribal Council passed an ordinance that laid out expectations for government-to-government consultation on environmental permitting within present-day tribal territory.

<sup>13</sup> [https://www.lumbeetribe.com/files/ugd/6ca8af\\_cf2e9f367306479e95d98eb6a105262f.pdf](https://www.lumbeetribe.com/files/ugd/6ca8af_cf2e9f367306479e95d98eb6a105262f.pdf)

<sup>14</sup> <https://drive.google.com/file/d/1ucOxXquJPscbd0zkCk1qVuPkRBf7eEFL/view?usp=sharing>

## Tribal Coastal Resilience Report (October 2023)

- Federal Energy Regulatory Commission Tribal Engagement Letter<sup>15</sup>
  - As part of a larger effort toward promoting environmental justice for Indigenous peoples in the Coastal Plain, Emanuel organized a coalition of tribal leaders from North Carolina and Virginia to submit formal comments to the Federal Energy Regulatory Commission's request for input on revised implementation of the Natural Gas Act. The coalition included multiple Tribes with ties to the APNEP region who were motivated to provide input after prior experiences with the agency.

### **6.3 Lessons Learned / Initial Recommendations for Agency and University Resilience Practitioners**

Highlights of early discussions include the following lessons learned and initial recommendations for agency and University resilience practitioners that seek to work with Tribes. The team intends to expand upon this list and create resources that can be shared with others. Key lessons include:

- Tailoring existing assessments or studies can be useful first steps in engaging tribal communities in resilience work.
- Show respect by listening and understanding that natural and cultural resources intertwine for Tribes in ways that broaden the scope of factors that may be important for climate resilience planning.
- Assume that popular and easily-accessible resources for identifying Indigenous connections to place are inaccurate or incomplete for any particular region.
- One Tribe cannot speak for the others; non-Indigenous entities should seek to build relationships with all Tribes.
- Tribes are not confined by our imposed political boundaries of today. Just as the Albemarle-Pamlico Estuary crosses political boundaries, APNEP must recognize and honor these trans-boundary relationships and create permanent and meaningful connections with Indigenous peoples throughout the region.
- Tribal representatives and partners often take time away from their jobs to engage with government agencies and other outside entities. Compensate them for their efforts.
- Everyone can benefit from Indigenous peoples' knowledge of, and connections to, the APNEP region.

## **7. Timeline and Next Steps**

### **7.1 Project Timeline**

Phase 1 included the launch of the work, research on tribal climate adaptation plans, online experimentations with tribal engagement, field work, partnership and network development, and continued discussions on tribal engagement issues in Virginia and North Carolina. An outline of key activities is shown below:

March 2020

---

<sup>15</sup> <https://drive.google.com/file/d/1xtACb0JnR5v4LzxsVIPOp7QAnyCtu91S/view?usp=sharing>

## Tribal Coastal Resilience Report (October 2023)

- Project presented at the North Carolina Unity Conference

April - August 2020

- Team onboarding and contract negotiations

September - December 2020

- Project launch
  - [#WaterStory Campaign kicked off on Indigenous Peoples Day, 10/9](#)
  - [CBF: Native Americans in the Chesapeake](#)
  - [American Indian Heritage Celebration](#)
- WM's convening of tribal communities to review findings

January - February 2021

- Coordinated [The Climate Service](#) and Climate Risk Data
- Research and development
  - Mapping and Water Story Tools: [Terrastories](#) and [Digital Democracy](#)
  - Community Engagement Practices: [Wampum](#) and [Tools for Equitable Climate Resilience](#)
  - Tribal Coastal Adaptation Plans Review

March 2021

- [NC Unity Conference Video](#)
- [We Still Remain](#)
- [Created excel to capture water stories to date](#)
- [Started design water stories using WAMPUM](#)

April 2021

- Inputted data from Nottoway, Meherrin, and Haliwa Saponi into the The Climate Service database
- NC Breathe Conference - Jocelyn and Beth

May 2021

- Carolinas Coastal Resilience Conference
- Beth - temporary solutions/30 day break
- Ryan submitted a letter on behalf of Tribes to Federal Energy Regulatory Commission regarding tribal consultation, environmental justice, and consultation

June - August 2021

- Tribal Climate Adaptation and Resilience Plans Analyses
- Tribal Climate Resilience Camp - Beth attended

September - October - November 2021

- Field research
- Coastal Futures Conservatory Conference

## **Tribal Coastal Resilience Report (October 2023)**

### December 2021

- Nottoway worked with William and Mary partners to submit a National Science Foundation proposal to support these efforts for 5 years

### January 2022

- Team reconvenes to discuss next steps
- Nottoway advances partnership with The Nature Conservancy
- Nottoway receives grant from Fund for Shared Insight for climate adaptation planning

### February 2022

- FERC releases updated policy and cites letter
- Beth attends National Climate Assessment: Southeast Chapter Engagement Workshop
- Beth appears on United Nations Environment Program and and Richmond (RVA) Green Drinks to discuss WAMPUM model
- United Nations releases new climate report

### March 2022

- GIS project launch with Nottoway, Nansemond, and William and Mary
- Refine final report for phase 1 and steps for phase 2

### April 2022

- Wrap up phase 1 findings
- Tour of Lumbee territory with Dr. Lydia Jennings (University of Arizona)

## **7.2 Next Steps**

The next phase of this work should focus on expansion of efforts and tools identified in Phase 1 (Terrastories, GIS Storymapping, and WAMPUM), possibly through targeted work in the Chowan watershed and the Great Coharie watershed. Note that even though the Great Coharie River drains to the Cape Fear River, Coharie people have historic ties to the APNEP region, and their existing efforts on river restoration and ecotourism can serve as a model for tribal communities undertaking similar work in the APNEP region.

Future work should also seek to deepen relationships between tribal communities, agencies, and academia. By highlighting and amplifying good work by the Coharie, information sharing and lessons learned will undoubtedly increase capacity in other communities. The current team will continue working together and will seek to add more voices. Examples include Phillip Bell (Coharie), Nikki Bass (Nansemond), Deanna Beachum (Weapemeoc) as well as others living in the larger Albemarle-Pamlico watershed and others. Future work may also leverage regional or national events such as 50th anniversary commemorations of the Clean Water Act or 40th anniversary commemorations of the Warren County, NC protests that sparked the modern environmental justice movement.

## Tribal Coastal Resilience Report (October 2023)

### 8. COVID19 Impacts

The Tribal Coastal Resilience project was inescapably impacted by the effects of the COVID19 pandemic. Our first planned activity was to present at the March 2020 NC Indian Unity Conference just as travel was beginning to shut down across the US. All areas of standard operating procedures had to be reworked resulting in delays in contract negotiation and in the onboarding of staff. In addition to slower paces on a bureaucratic level, the effects of the pandemic have touched the personal lives of team members in ways that involve health and wellness, childcare, and internet connectivity. A significant aspect of the project - community engagement during tribal events - required major retooling to accommodate the limitations imposed by the pandemic. Adapting in real time was a necessary and slow process, but we adapted our methods to continue conducting outreach during the pandemic.

### 9. #WaterStory Examples

(<https://www.facebook.com/TribalCoastalResilience>)

Comments
In years past, Indigenous water food on the first day seemed like good luck had arrived, and might stay with us if we kept our friends. Gene Jacobs in a past New Year feast.
Beth with Alliance of Native Seedkeepers had asked for people to tell their #WaterStory about what body of water was special to them... Mine is the river that runs by my house. The river is Imbedded not only in my own identity but that of my family. My grandpa told me stories about swimming and fishing there. I know his grandpa did the same when he got here from se Oklahoma (where he came from in 1899, his mother was born during the removal from Mississippi and he was the first one born in Indian Territory aka Oklahoma). And my husband's people had a winter camp near here too. So to say the ties run deep would be an understatement. When I need to unwind and recharge, or just need to find some peace I always find it here. This river is what pushes me to fight for water rights and who showed me that #WaterIsLife. In the 20+ years I have been walking these banks I've seen so many changes. It used to be clearer, it use to have less trash (I always bring out more trash than I go in with but people are nasty and shit flows down the river), it smelled different, and there was a lot more gar. With all the pipelines running under her I worry about when one breaks. So it's not all rainbows but it's still my #MyHappyPlace #MyChurch #WaterIsSacred

## Tribal Coastal Resilience Report (October 2023)

I took a break from the seeds and land claim work yesterday, and took a short ride down to one of the many uhnà·weh right on the Kahní·yaʔ, created by dams built by cǔʔnakeʔ. Though there are still many on the reservation on Skhawaʔkye.. They used to be so massive and prominent that the main road across the reservation and some of the highway that extends outside it was called uhnà·weh. A uhnà·weh is a body of water that has accumulated by a blockage such as a beaverdam. Perhaps the road, which is far older than European contact was built largely on top of an ancient beaver dam, or maybe our ancestors were simply pointing out that the road often ran alongside a number of these beaver dams.cǔʔnakeʔ are experts in redirecting water with their dams and canals. Historically, our ancestors used these dams and diversions of water in our favor for our agriculture. pools of water backed up and canals can provide excellent irrigation for our crops that might otherwise dry out... These pools also assisted as fish traps and helped migratory fish breed safely. Not to mention the beaver themselves provided warmth with their pelts and an excellent source of meat and fat. Either way... These little builders of nations are some of the more impressive creatures we have the privilege of cohabiting our space with.

Here is my lady... I'm not sure why, but each time I pass over her, she says something new. I stop and listen to her every single time. I took my son down to her shores not realizing that she was so swollen with water, that to get out would have washed us away. Still, she was very serene and beautiful yet powerful and commanding...We must protect our waterways at all costs! #WaterStory #myLadyNottoway

As a child, I spent my summers on the Rappahannock River. One of my favorite past times was crabbing. I created this quilt called "Water is Life- Sohsú·ne". This quilt is dedicated to the Chesapeake Bay Blue Crab. It is important to have clean, oxygenated water for the health of the eel grass beds where crabs spawn. Warming of the waters and pollution has created dead zones, reducing eel grass and crab populations. The number of juvenile crabs decreased by 54% from 2016 to 2017. If we don't make changes, we will lose a critical bay species, a delicious treat, and huge seafood industry. #WaterStory

My favorite body of water is the Shenandoah River! Some of my favorite memories are from camping trips down the river. My concern for the river is the runoff from the nearby farms. The water is not safe to drink and sometimes is brown and smelly.

## Tribal Coastal Resilience Report (October 2023)

Kauwetsaka aka Meherrin Nation aka People of the Water . Our Minds are One . Our Rivers connects our Nations. Our waters connect us to our Ancestors. Water is life. WE ARE thankful for clean water. yękwarihuwatháʔθeh awękęhaʔnęʔ. ù:nę čakwaʔtikęhra:t. We are thankful for all the waters. yękwarihuwatháʔθeh kęčękęhaʔnęʔ. ù:nę čakwaʔtikęhra:t. We are thankful for all the fish #Waterstory #Meherrin River #Potecasi Creek #People of the Water #Thats what Our Name means

As an indigenous woman, à·waʔ is critically important for life. The human body ranges from about 45-75% water. The animals, birds, fish and insects also need water. I want us to all have clean water. My grandfather grew up fishing on the river and brought home fish for dinner. Now, I see these signs not only on the Nottoway, but also on other rivers in the state. My wish for the water is that we would clean up our rivers so that we could eat the fish and not have to worry about the toxins. #WaterStory #Nottowayindians

This stream was right behind the land where my Great Grandparents lived. After our people relocated from Indian Woods we discovered these little creeks and canals and made them home. I'm very grateful to walk in the same stream that my people found refuge in.

Happy Indigenous People's Day. I am supporting the Tribal Coastal Resilience Connections by sharing my stories about à·waʔ (Water). I wrote this song about the Nottoway River. This river is important to the people of the Nottoway Indian Tribe of Virginia, both historically and currently. I love the ancient history of indigenous people living along the river for thousands of years. I am sad to clear cutting of old growth cypress trees which likely will not be replaced by the same species and impact the water quality. I would like to see selective environmentally responsible logging practices along the river. I would like to see people stop dumping their trash in the river, especially the illegal dumping of large tires in the river. I am really tired of our people having to haul trash like this out of the river every year. #WaterStory #Nottowayindians

We're already seeing effects of warming temps where it is getting harder to grow wheat during winters in southern NC.