



Tribal Climate Resilience Program — Eastern Region

EASTERN REGION

The Eastern Region is experiencing heat waves, snowstorms, and hurricanes that are affecting health and infrastructure, while longer dry periods are affecting the health and heightening wildfire risks in temperate forests. Regional staff assist Tribes to join the Weather Ready Ambassadors



program in partnership with other federal agencies. Tribes are also participating in USFS Northern Institute of Applied Climate Science (NIACS) Climate Change Response Framework Demos <https://forestadaptation.org> and adaptation training <https://adaptationworkbook.org>

CLIMATE IMPACTS

- Ocean Acidification
- Hurricanes and Flooding
- Increased Pests and Diseases
- Increased Wildfire Risks
- Sea Level Rise



FUNDED STRATEGIES

United South and Eastern Tribes, Inc (USET), representing most Eastern Tribes, facilitated a Bi-Coastal Climate Workshop and joined the LCC Council to support Tribal Resilience efforts across large landscapes. USET also partnered with the Eastern Band of Cherokee Indians (EBCI) and the NC Arboretum to develop a private, tribally-focused seed bank to preserve specimens and seeds for generations to come. EBCI staff provide plants and seeds annually to Tribal members at events throughout the year and the NC Arboretum has determined through nutrient panels how healthy various species of native plants are in supporting long-term Tribal health.

Seneca Nation of NY has developed a Native Plant Policy to encourage propagation of native species in landscape design throughout their territories. They are also promoting Healthy First Nations and youth mentorship through their Food is Our Medicine Project - <http://www.foodisourmedicine.org>

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The St. Regis Mohawk Tribe (Akwasne) Climate Adaptation Plan builds from a Tribal poem - <http://bit.ly/2n4LXx2> to consider water, air, wildlife and other values in turn. The Tribe also acquired and removed the Hogansburg Hydroelectric Dam to improve fish habitat access; watch the video: <https://youtu.be/TVBiQFP2-G8>

Federal agencies and the Penobscot Nation participated in the award-winning Penobscot River Restoration

EXAMPLE PROJECTS

Extreme Stream Temperature on the Meduxnekeag River impacts Houlton Band of Maliseet Indians



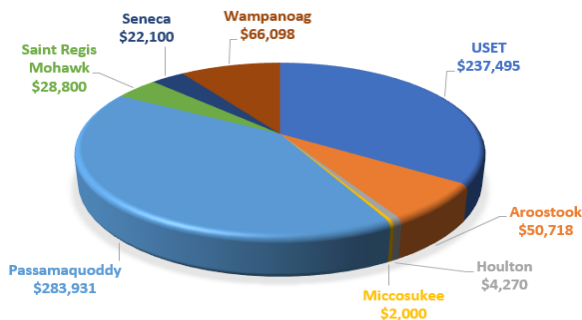
This part of the Meduxnekeag River near Houlton, ME exceeded 30° C in August 2015. Excessive river temperatures impede the ability of Tribal members to conduct sustenance fishing, which risk losing Traditional Knowledge of fishing practices. Of no less importance, the Native American concept of “life” couples human life with the lives of animals and plants in the surrounding ecosystem. Climate forecasts have the potential to inform tribes how to best plan to preserve species and the lifeways they engender.

Oneida Nation Faces More Extreme Winter Weather



New York/New England tribes were affected by heavy snow events in 2015 (Oneida Nation of New York pictured here). Tribal offices in remote locations in the northern U.S. are limited in their ability to operate during the winter. Winter storm forecasts are useful in planning seasonal operations and are among the greatest benefits Weather Ready Nation can provide to Eastern Region Tribes and Offices <http://bit.ly/2nhPJPx>

EASTERN TRIBAL AWARDS





CLIMATE SCENARIOS

2035 and 2060 CMIP5 Climate Projections

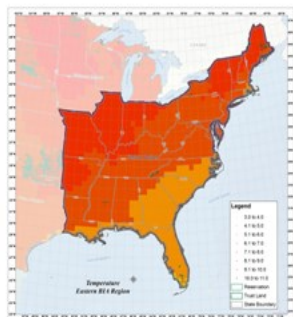
From EPA CREAT Projection Map <http://arcg.is/2cEzv2p>

Success at emissions controls over time, as well as development and population trends, will determine the degree of climate change we can anticipate. Managers should test the robustness of decisions over a range of potential futures to reduce overall risks and costs.

Temperature Scenarios



Hot 2035



Hot 2060



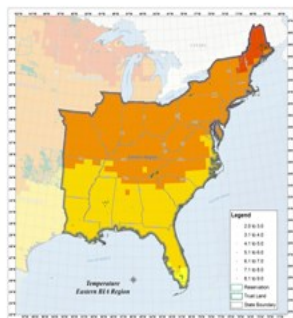
Central 2035



Central 2060



Warm 2035



Warm 2060

Precipitation Scenarios



Dry 2035



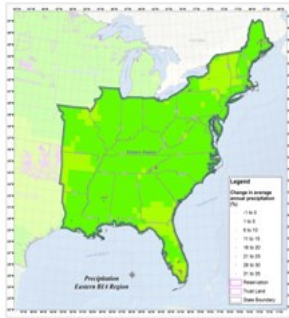
Dry 2060



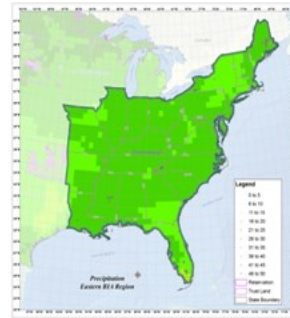
Central 2035



Central 2060



Wet 2035



Wet 2060

DATA ANALYSIS EXAMPLE

Sea Level Rise and Coastal Management

One particularly complex aspect of climate change is how much sea levels may rise as glaciers and ice sheets melt, compounded by thermal expansion of a warming ocean. A higher ocean level coupled with greater heat energy is projected to cause more catastrophic hurricanes and higher, longer storm surge that draws corrosive salt water much further inland. Visit NOAA Coastal Management state and national resources to plan for coastal safety and natural resource protection - <https://coast.noaa.gov/>

