Climate Change Impact on Eastern Tribes

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United South and Eastern Tribes



USET Tribes

- 25 Tribes, from Maine to SE Texas
 - 538,000 acres (841 sq. mi, a bit less than RI)
 - <0.2% of eastern area (603,500 sq mi)</p>
 - 51,000 tribal members
 - 0.04% of eastern population (121 million)



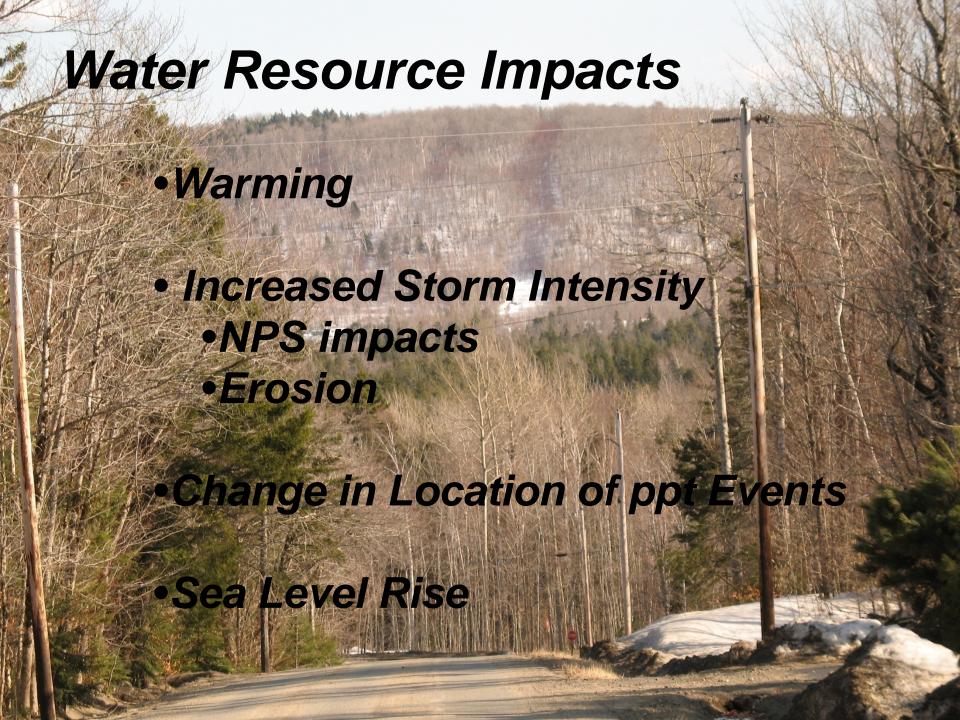
Canary in the gold mine

Tribal Vulnerability

- Economically Challenged
- Immobile
- Poor Health
- Spiritually/Culturally Invested in Specific Areas
- High dependence on subsistence gathering

Basic Observations

- Mitigation not a Choice:
- •Adaptation only viable option:
- •Limited actions available:
 - Determine the changes
 - Identify the impacts
 - Determine adaptations that must be made
 - Develop strategic plan



Atmospheric Impacts

- Increased frequency/intensity of storm events
- Heat wave impacts
- Increased level of pollutants
 - HAPs
 - Ozone
 - SOx/NOx
- Wind pattern changes

Impacts on Mercury

- Fish Consumption Advisories
 - No Freshwater fish except Trout
- "Reservoir Effect"
 - Enhanced Dry Periods Followed by Flooding
 - Everglades as Well as Northeast

Maine Tribes

- Passamaquoddy Tribe Pleasant Point
 - 140,000 acres, 2,100 pop.
- Passamaquoddy Township
 - 1,400 pop. Shares trust land with PP
- Penobscot Tribe
 - 67,000 acres, 2,200 pop.
- Aroostock Band of Micmacs
 - 1,300 acres, 1.800 pop.
- Houlton Band of Maliseets
 - 860 acres, 830 pop

Maine Tribes

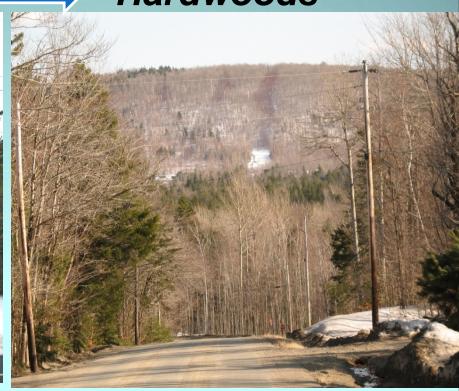
- Moose: ticks, range change due to spruce/fir
- Deer: loss of deer yards
- Forestry impacts
- Sugar maple
- Forest pests/insects
- <Ice skating</p>
- Wood is harder to split

Climate Change impacts on Forests

Spruce/fir

Hardwoods





Maine Tribes

- Water
 - Salmon; lethal/chronic- behavior vulnerability
 - DO decrease
 - Algae blooms
 - Increased storms nps pollution, turbidity
 - Lower pH fresh and salt water

Southern New England Tribes

- Wampanoag Tribe at Gay Head
 - 285 acres, 1,000 pop.
- Mashpee Wampanoag Tribe
- Narragansett Tribe
 - 1,950 acres, 2,620 pop.
- Mashantucket Pequot Tribe
 - 1,400 acres, 315 pop.
- Mohegan Tribe
 - 406 acres, 1,640 pop.

Southern New England Tribes

- Increased fish and shellfish diseases
- Increased mosquitoes and ticks
- Decreased ice fishing
- Increased forest diseases
- Decreased water quality
- Decreased sustenance gathering

Southern New England Tribes

- Wampanoag's of Gay head (Martha's Vinyard
 - Tularemia
 - Spotted tick disease
 - Rising sea water
 - Changing sea water chemistry and lobster impacts
- Mashpee Wampanoag's
 - Ocean commercial fishing impacts

New York Tribes

- St. Regis Band of Mohawks
 - 14,760 acres, 2,700 pop.
- Oneida Indian Nation
 - 17,000 acres, 1,000 pop
- Seneca Band of Indians
 - Approx. 20,000 acres, 7,300 pop.
- (a number of NY tribes have no land base)

New York Tribes

- Chronic wasting disease in deer
- Brown ash impact
- Sugar maples impact
- Water quality deterioration
- Emerald borer impact on forests
- Increased storm events
- Positive impact on wind farm development?

Cherokee-North Carolina

56,750 acres, 8,100 pop.

- Positives:
 - Increased forest productivity
 - Alteration in medicinal food gathering
 - More tourists seeking cooler temps

Cherokee- North Carolina

- Negatives:
 - Increased flooding/erosion
 - Increased fire hazards
 - Potential loss of spruce/fir and Carolina flying squirrel
- Freshwater Trout hatchery Impacts
 - Increased cost, mortality, and perhaps not feasible
 - Elimination of Appalachian Brook Trout
 - Major economic implications to Tribe

Florida

- Miccosuki Tribe
 - 79,712 acres, 550 pop.
- Seminole Tribe
 - 89,000 acres, 2,760 pop.

Florida

- Everglades impacts
- Rising sea water levels
- Increased mercury
- Decreased water quality/quantity
- Fires
- Invasive species
- Increased storm events

Gulf Coast Tribes:

- Poarch Creek, Alabama
 - 230 acres, 2,230 pop.
- Mississippi Band of Choctaw
 - 37,000 acres, 8,825 pop.
- Tunica-Biloxi
 - 1,462 acres, 920 pop.

- Chitmacha
 - 445 acres, 1,070 pop.
- , Coushatta Band, Louisiana
 - 3,581 acres, 835 pop.
- Alabama-Coushatta, Texas
 - 4,600 acres, 1,001 pop.

Gulf Coast Tribes

- Increased storm events
- Drought/fires
- Long-leafed pine distress
 - Acid rain
 - Nitrogen deposition

Agencies With Tribal Climate Change Programs

- EPA
- DOI
- USGS
- NASA
- NCAR
- AIHEC
- IIIRM

- -Dinè College
- -Haskell U.
- -ITEP
- -NTAA
- -BLM
- -NTSC
- -DOE



Actions (1)

- Framework for Coordinated response
- One=stop Website at ITEP
- Mentoring
- Internships
- Forums
- Workshops
- Budburst.org/ National Phrenology Network

Actions (2)

- Conferences:
 - National Tribal Forum , June 3-5, 2008, Las Vegas
 - National Tribal Conference of Environmental Management, June 23-27, Billings, MT

Actions (3)

- Congressional
 - Lieberman-Warner. 0.5% Set-Aside, =\$ 577 mil/yr
 2012, for Disruption/Dislocation
 - Secure Water Act
 - Safe Drinking Water

