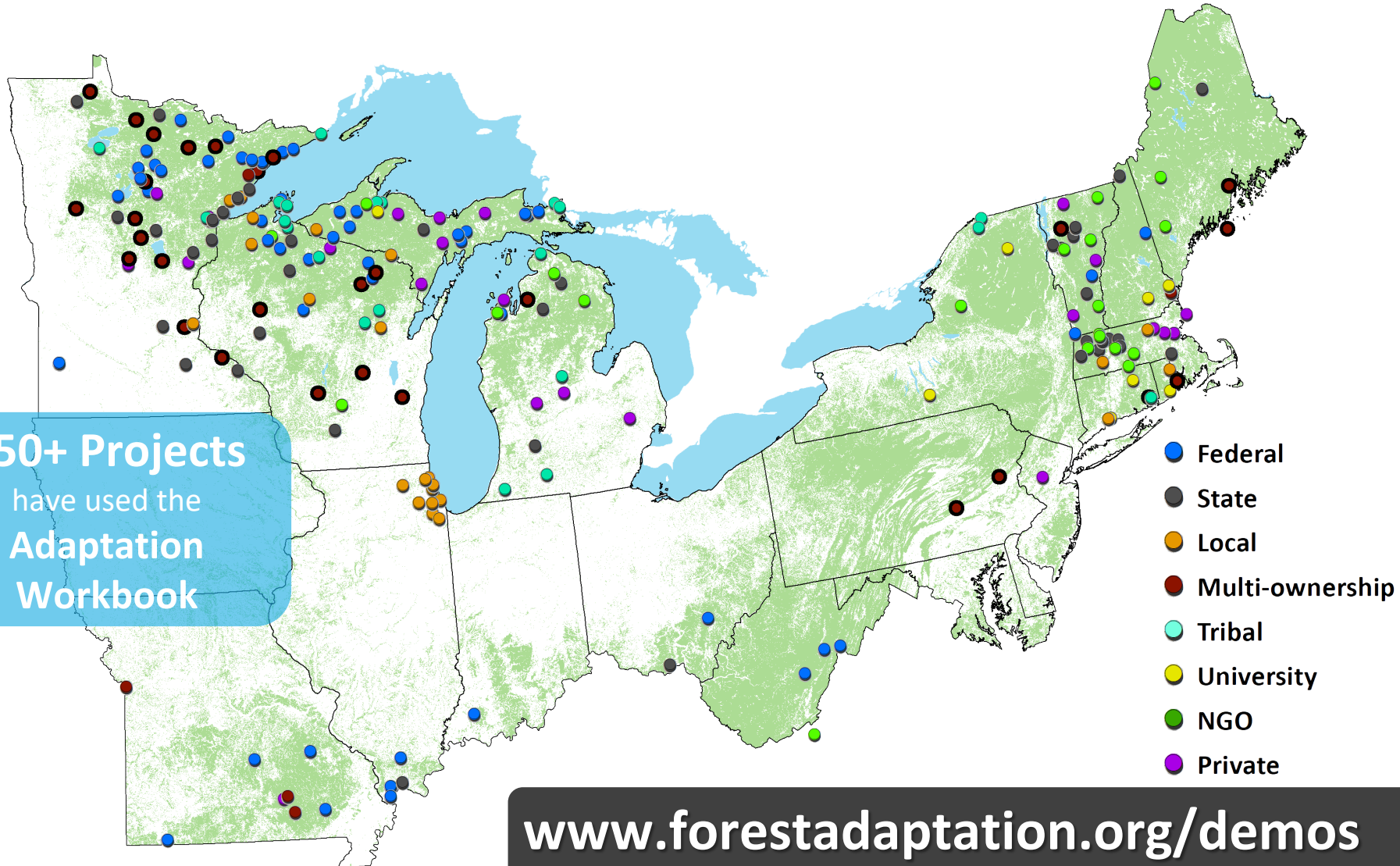


Adaptation Demonstrations

Real-world examples of climate-informed management



Adaptation Options in Projects

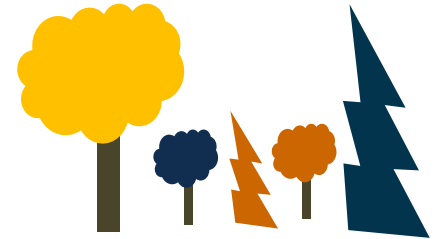
RESISTANCE



RESILIENCE



TRANSITION



Northern New England:



Southern New England:



Norcross Wildlife Sanctuary (MA/CT)



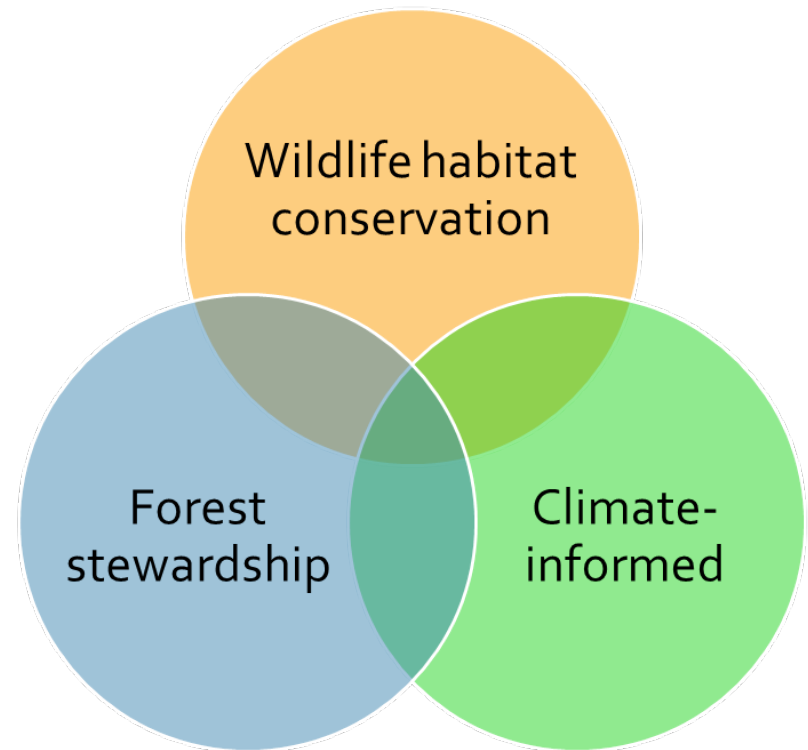
Extreme rainfall and weather

Risk of tree species declines

Effects on wildlife habitat



Norcross Wildlife Sanctuary (MA/CT)



Norcross Wildlife Sanctuary (MA/CT)



- Increase tree species diversity and forest structure
- Reduce impacts from forest pests and diseases
- Promote native species adapted to future conditions



Trustees' Notchview Reservation(MA)

Risk of tree species declines

Invasive species

Shorter winter season



- Reduce impacts from forest pests and invasive species
- Match forest management actions to forest conditions and threats
- Use forest harvest to promote future-adapted tree species

Atlas Timberlands (VT)

Shorter, warmer winters impede operations



- Implement summer harvest on “winter ground”
- Road layout, pre-sale planning, temporary bridge installation

Trout Unlimited & Partners (VT/MA)

Washouts and erosion from extreme rainfall

Impacts to aquatic habitat and organisms



- Improve culverts to increase stream connectivity
- Remove and stabilize failing infrastructure
- Increase stream woody material
- Manage forest uplands for tree health and diversity

Providence Water (RI)

Multiple stressors (drought, insects, etc)

Impacts to forest overstory and understory



- Reduce impacts from forest pests and diseases
- Promote future-adapted tree species by planting southern species (black oak, pin oak, persimmon, pitch pine, shortleaf pine)
- Minimize impacts from herbivory

Principles for Adaptation

- **Prioritization and triage** – direct actions based on vulnerability and anticipated effectiveness
- **Flexible and adaptive management** – stay flexible, and improve over time
- **“No regrets” decisions** – emphasize win-win actions, especially in the short-term
- **Precautionary actions** – take action to reduce risk in the most vulnerable systems
- **Variability and uncertainty** – design actions to accommodate a greater variety of future conditions
- **Integrating mitigation** – use complimentary actions to ensure forest can sequester carbon