

2020 FEMC REGIONAL PROJECTS

Projects aimed to address a regional information gap

Monitoring Forest Indicators for Signs of Climate-Driven Change

Seeking to identify existing sources of monitoring data, research, and information to inform the development of climate thresholds, identify current opportunities for collaboration, and find gaps in our collective knowledge.

Key Questions:

- What are the most important indicators of the impacts of climate change in forested systems?
- Where are these indicators being monitored now and where are there gaps?
- How can someone access protocols that describe the methods for monitoring to see these impacts?

Products (In Progress):

- Filterable web portal that allows user to easily access information about where indicator monitoring is occurring across the Northeast.
- Web-based search engine that allows users to easily access protocol information that provides rigorous and replicable methodologies for implementation.

LM Kopacki

Monitoring and Communicating Changes in Forest Disturbance Regimes

Natural and anthropogenic disturbance regimes play a large role in northeastern forests, in historical and modern contexts.

Project Objectives:

- Aggregate and archive data region-wide to provide access to disturbance regimes related datasets.
- Provide trend analysis from historical disturbance data to determine changes in extent, severity and frequency of regime changes.

Products (In Progress):

- Integration of common forest disturbance products with other localized efforts, research products, and expert synthesis.
- Comprehensive gap analysis that identifies critical needs to best inform ongoing monitoring and management.

LM Kopacki

Expanding Forest Health Monitoring

Development of a regional plot network to monitor forest health across forest types in New England and NY.



Ongoing Work:

- FEMC has established and monitored forest health measurements in Vermont for 27 years.
- Monitoring is designed to capture a range of tree health and structural stand metrics on a network of permanent plots across forest types.
- Methods emphasize quantitative measures that are standardized with traditional forest health metrics for greatest compatibility with other long-term datasets.
- Plots provide insight into annual fluctuations in tree and stand condition, and are useful in tracking trends in forest health over time.

Expansion:

- FEMC is working to expand this network across the region for more comprehensive annual field assessments of forest health across the region. In 2019 this included expansion to Continuous Forest Inventory plots in Massachusetts.
- In 2020 and 2021 we will work with state partners to design a robust plot network across all participating states in the seven-state region for annual forest health measurements to be completed by FEMC crews alongside forestry personnel from each state.

Water and Forest Connections

Improving access to information that connects forest cover and water quality.

2019 Regional Project-COMLETE!

This project was developed to improve access to information and integrate data related to analyzing the connection between forest cover and water quality by providing access to key datasets in a standard spatial framework.

Products

- Inventory of 30 downloadable datasets searchable by description, years, units, processing steps, and original data source.
- Story map to provide summaries in the trends of long-term datasets by watershed.

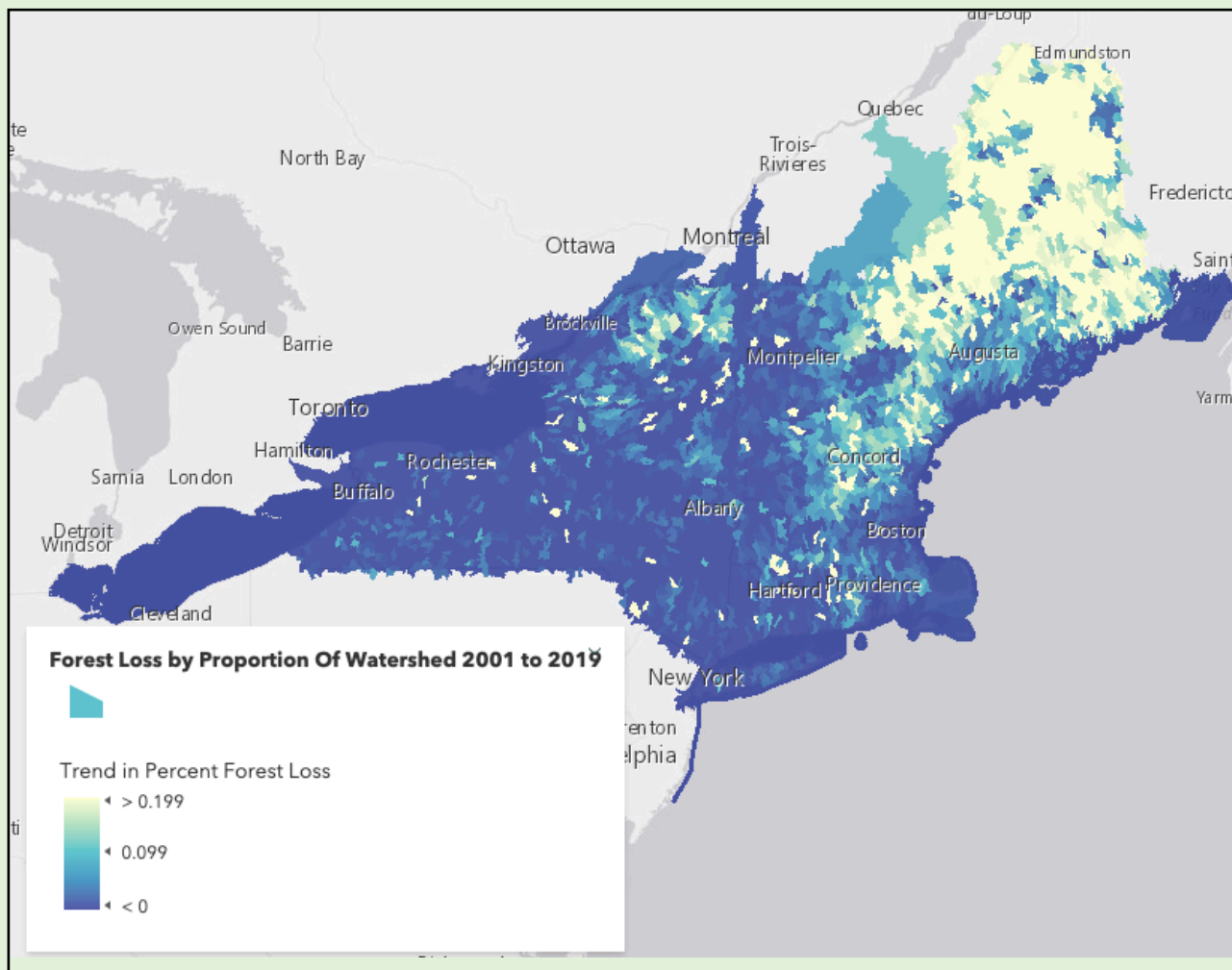


Figure 1. Map of forest loss by proportion of watershed (2001-2019) as visualized with the Forest Cover and Water Quality tool.

[Explore the project page](#)