



ADAPTATION & FOREST RESILIENCE for Woodland Owners

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NEW ENGLAND
FORESTRY
FOUNDATION

Massachusetts Ecosystem Climate Adaptation Network
November 30, 2017 - Westborough, MA

My MassConn Woods

On-going initiative focused on landowner outreach for conservation & forest management since 2013



American Forest Foundation



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A screenshot of the My MassConn Woods website. The page has a green header with the URL 'mymassconnwoods.org' and navigation links: 'OUR REGION', 'WHAT'S NEW', 'LANDOWNER RESOURCES', 'GET HELP!', and 'ABOUT US'. The main content area features a large photograph of a forest with a prominent tree. To the right of the photo is a sign-up form for an eNewsletter with fields for 'First Name', 'Last Name', and 'E-Mail Address', and a 'SIGN UP!' button. Below the photo, the text reads 'Family Woodlands are Vital to Our Region!'. At the bottom right, there is a link for 'Upcoming Events'.

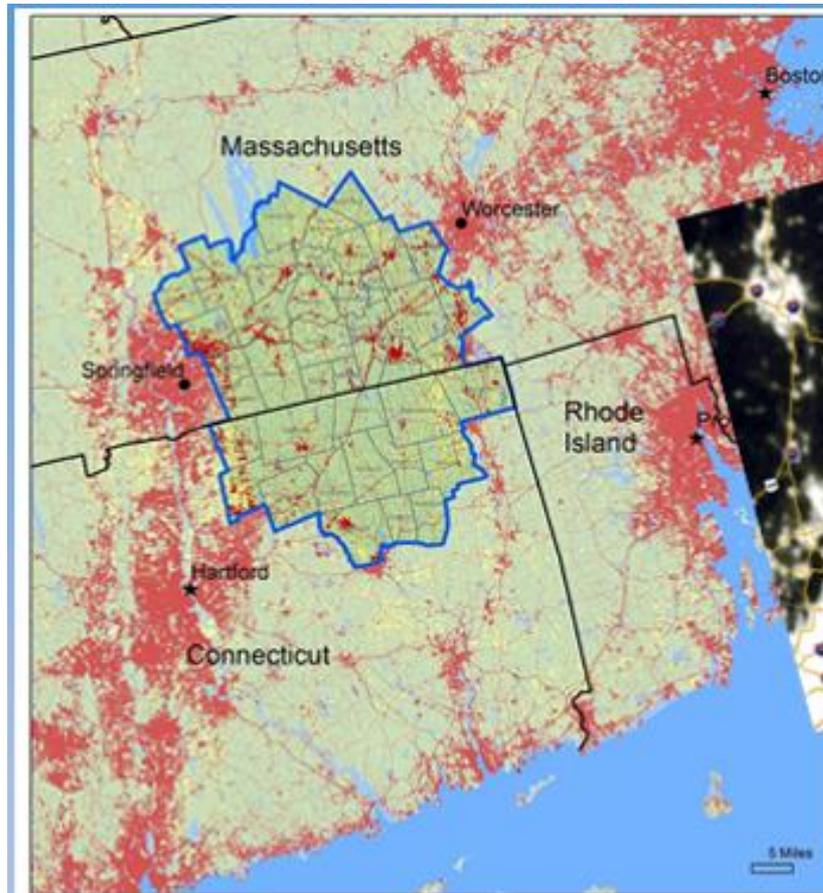


MassConn Sustainable Forest Partnership

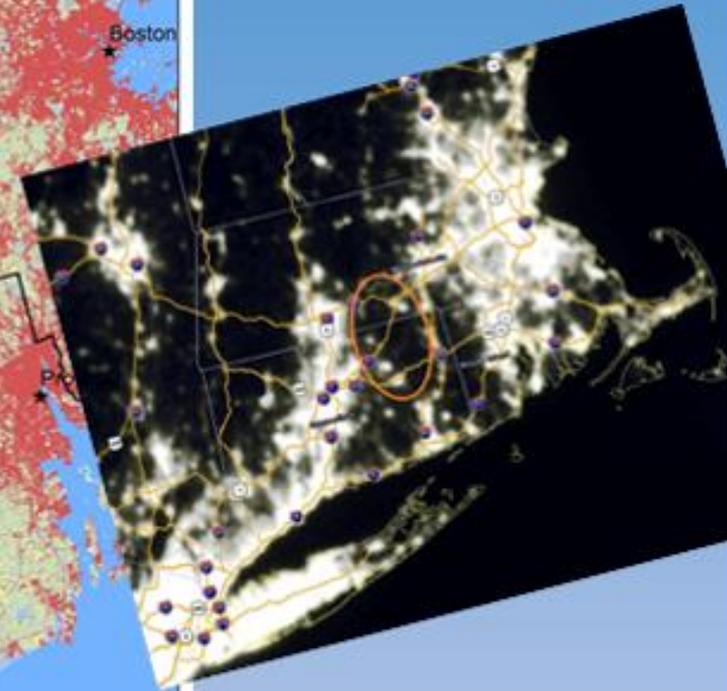
- 38 towns MA, CT
- 760,000 acres
- 76% forested
- 23% protected

Conservation Goal:

- 80,000 acres
- 33% of region

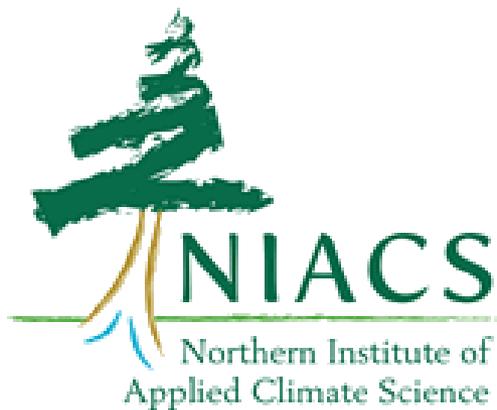


MassConn Sustainable Forest Partnership



Wildlife Conservation Society grant - 2016-17

How do we
incorporate
climate
change into
stewardship?



*...Help foresters talk
with landowners...*

Equipping foresters for the conversation...

Considerations for Your Woodlot

The following are general recommendations to keep your woods healthy and able to adapt to changes into the future. While all of these actions are important, the checked recommendations are most applicable to your woods and your situation. To learn more, consult our fact sheet, consider working with a professional to implement these practices on the ground or visit our website at <http://mymasscomwoods.org/>.

Top Forest Stressors to Keep an Eye On	Extreme Weather Vulnerabilities

- Protect water and soils on your land
- Improve ability of your trees to resist bugs and disease
- Prevent and control non-native plants and weeds that threaten native plants and animals
- Manage damage to young trees from excessive deer browsing
- Prepare for big weather events by promoting strong, healthy trees in your woodlot
- Respond quickly after big disturbance events to help your woods bounce back
- Promote a diversity of tree species
- Promote a diversity of tree sizes
- Protect rare or sensitive plant & animal communities
- Consider how your current trees will react to future conditions and which tree species you might want to promote
- Monitor your woods and the effect of different management tactics

Keeping Your Woods Healthy Through the Years Ahead

Whether you spend time outside in your woods, or just enjoy the beauty of your trees and wildlife from your window, you likely love your woods and want to keep them healthy.

Forests are always changing and adapting to new conditions. Some changes are an anticipated part of the progression of green summer leaves to the bright red and gold of fall foliage, or annual return of brightly colored migratory songbirds. Other changes in our woodlands are only visible when comparing differences across many years or decades.

Our climate is changing in ways that humans have never experienced before, resulting in rising temperatures and shifts in seasonal precipitation patterns. You may be noticing some of these changes in your woods – such as earlier dates for the first signs of spring leaf-out, unusual weather patterns, longer dry periods in summer, or even an increase in fast-growing, invasive plants such as green ash.

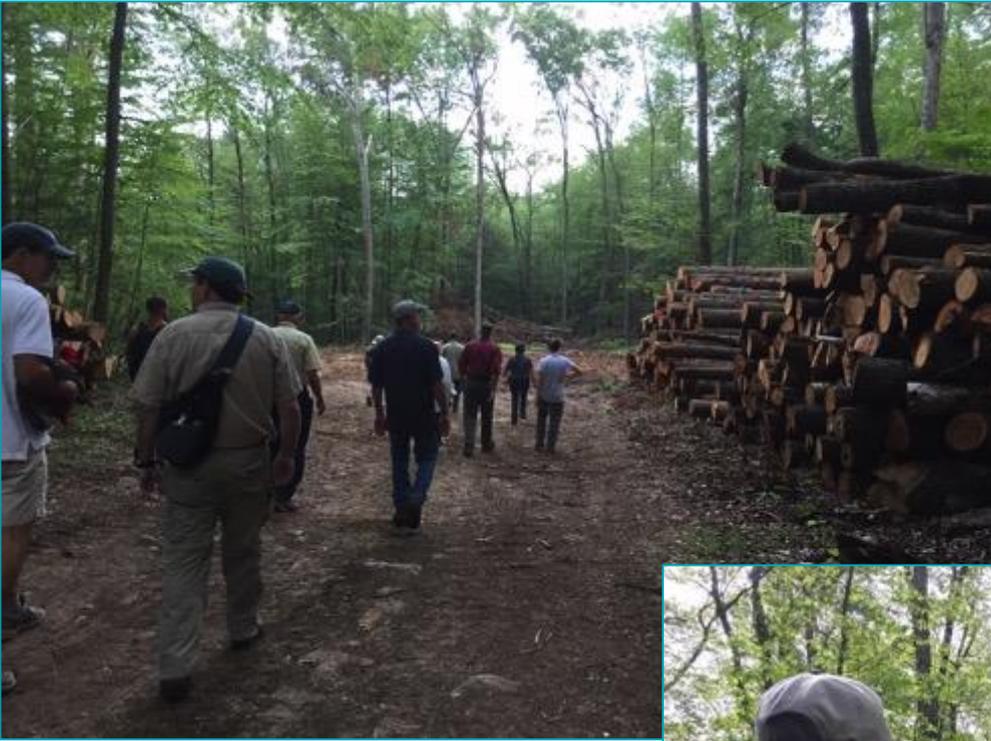
In particular, temperature and precipitation patterns in the Massachusetts region of northeast Connecticut and north-central Massachusetts have changed over the course of our lifetime. For example, the heaviest rainfall events have increased 76% in the Northeast US, from 1950 to 2010 – more so than in any other part of the country! Additional changes are expected by the time our grandchildren are having grandchildren of their own.

- Annual precipitation has increased by 3.6 inches in the Massachusetts Woodlands, and is projected to rise at least another inch over the next 100 years. At the same time, extreme or very heavy precipitation events are expected to occur more often, and warmer temperatures will result in more run-off than snow! This means your stream crossings and culverts will need to accommodate dramatically increased flow at times.
- By the end of this century, average annual temperatures are projected to increase somewhere between 2 to 10 degrees Fahrenheit, increasing both the length of the growing season and the frequency and severity of extremely hot days!
- A longer growing season, warmer temperatures, and more variable summer rain are likely to increase summer moisture stress leading to potentially harmful droughts.
- As the climate conditions change, the Massachusetts area is expected to become less favorable to the traditional northern trees we are familiar with and more favorable to typically southern species that are now at the northern reaches of their range. This means that many common trees such as maple, birch, and hickory are likely to experience greater stress, and new species more typical of the oak-hickory forest may have more opportunities!

New Tools for Parcel Assessment Visits

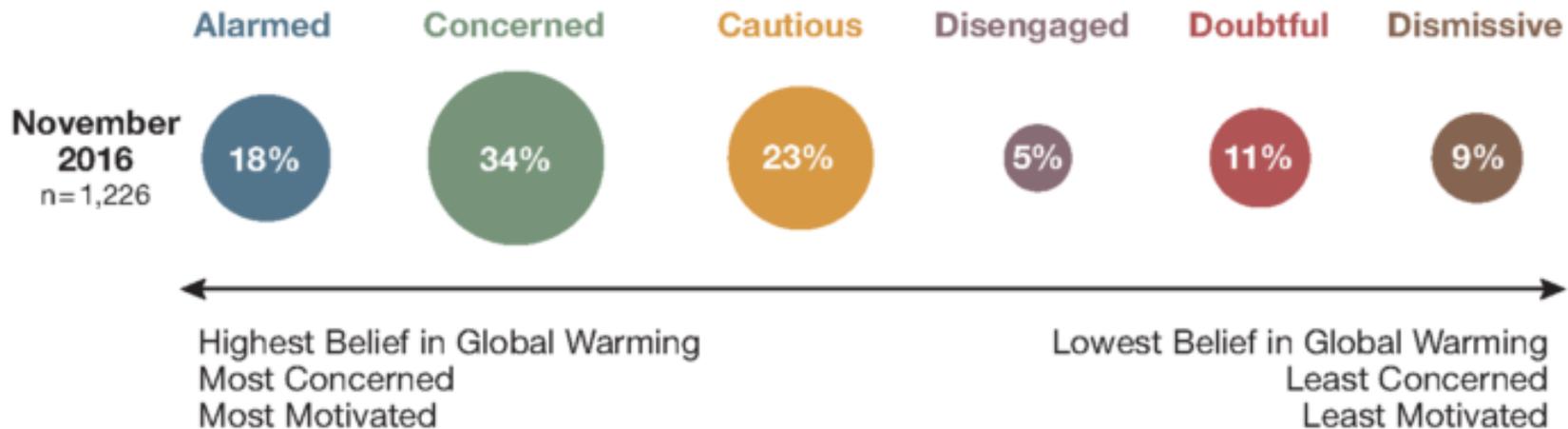
Harvest & Habitat Walks at Norcross Sanctuary

Folded Hills Forest
40-acre management site
August 2016



Whaleback Ridge Forest
20-acre harvest site
May 2016

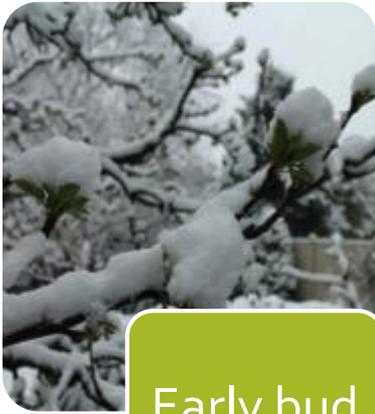
Know your audience. What do they really believe?



Proportion represented by area

Source: Yale / George Mason University

Find common ground.



Early bud
break



Wash-
outs



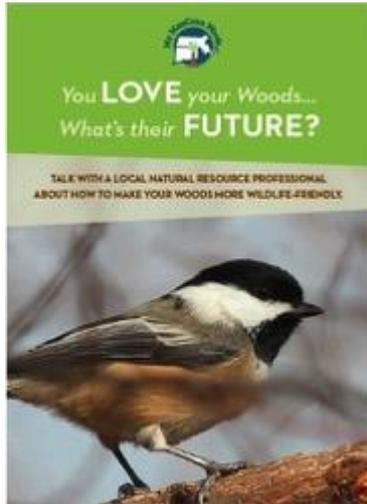
Extreme
weather



Moisture
stress

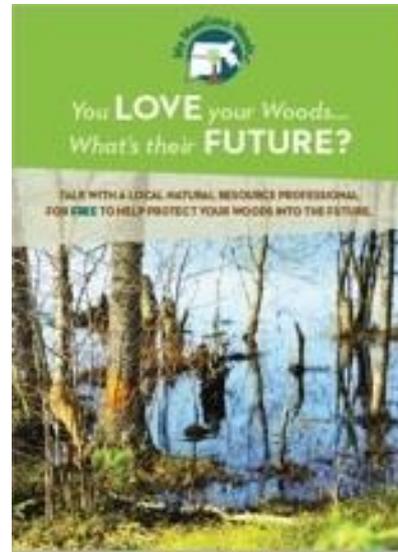
Talking Climate Change...

What messages resonate?

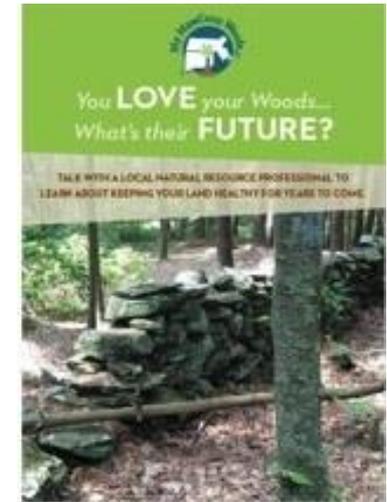


Wildlife

- Direct mail to 613 MA, 424 CT owners of 30+ acres across 38 towns
- Also offered "free" forester visits at MassConn events and Woodland Ambassador workshops



Extreme Weather



Healthy Woods

Considerations for Your Woodlot

29 acres - Woodstock, CT



Forester Recommended:

- ✓ Continue to remove invasives, replace with natives (protect soil, H₂O)
- ✓ Thin, release crop/mast trees (prepare for weather; promote strong trees)
- ✓ Release white pine regeneration (promote diversity of tree species)

Results

Goal: 500 acres under climate-informed management

To Date:

- Engaging landowners owning ~3,000 acres
- 40 parcel visits conducted by 6 trained consulting foresters
- Individual support for a dozen owners to apply for cost-share, incorporate climate in plans or practices



So far: 1,228 acres

- *Feeding the pipeline: 47 forest resilience info packets to 2016 non-responders*

NEFF 3-year Forest Service grant

- Complete MassConn outreach
- Identify new demo sites in key CT & MA landscapes

OUTCOMES:

- Prioritize parcels that rank high for TNC Climate Resilience
- Train 25 more CT & MA foresters
- Adaptation assessments on 2500 acres; 50 owners with management plan or added climate component



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Wanted: Demo sites & Potential Partners



- Considering forest management on land trust property?
- Interested in planning for climate change?

Tools are Available

- Climate messaging for owners
- Parcel-level forest adaptation

To access resources developed for the
MassConn Woods RCP, visit:

<http://www.forestadaptation.org/massconn>

Conclusions

- Families and individuals provide tremendous opportunity for landscape-scale impact.
- We can reach and engage this critical ownership audience – even on complex issues like climate.

