



The National Cohesive Wildland Fire Strategy: Northeast Regional Risk Analysis Report

November 1, 2012

Executive Summary

This Northeast Regional Risk Analysis has identified a set of feasible alternative approaches and options for addressing the Cohesive Strategy Goals in the Northeast U.S. For each of the investment options, the key risks, barriers, and opportunities are identified, and will be addressed in the Regional Action Plan to be developed.

The options for addressing each goal are:

Goal 1: Restore & Maintain Landscapes	Goal 2: Fire Adapted Communities	Goal 3: Response to Wildfire
Option 1A - Increase the use of prescribed fire where multiple benefits can be achieved.	Option 2A - Focus on promoting and supporting local adaptation activities to be taken by communities.	Option 3A - Improve the organizational efficiency and effectiveness of the wildland fire community.
Option 1B – Increase the extent of fire dependent ecosystems and expand the use of fire as a disturbance process.	Option 2B - Focus on directing hazardous fuel treatments to the wildland-urban interfaces.	Option 3B - Increase the initial response capacity (initial attack).
Option 1C - Focus on mitigating “event” fuels to reduce potential fire hazard.	Option 2C - Focus on promoting and supporting prevention programs and activities.	Option 3C - Further develop shared response capacity (extended attack; long duration fire potential).

These options represent alternative strategies that wildland fire management organizations, federal, state, and local governments, non-governmental organizations and local communities can adopt in any number and combination to best meet their objectives and address the risks they may face from potential wildfire impacts. This report, however, does not contain a quantitative cost trade-off analysis of the options as there was not time, capacity, or access to the needed information to be able to conduct such an analysis.

Wildland fire is a complex issue that involves multiple interacting factors spanning the natural, human, and built environments. During Phase II, the National Science and Analysis Team (NSAT) examined various aspects of wildland fire and developed conceptual models specific to each component. The purpose of these models was to display the interactions and relationships among factors, such as the relationship between fuel treatments and the extent and intensity of wildfire. The NSAT also identified various data sets that might be used in Phase III to build analytical models consistent with the concepts articulated in Phase II. Building on these efforts, Phase III has involved an extensive effort to collect data necessary to quantify relationships and provide a rigorous examination of risk.



For each national goal, narratives of regional investment options for the Northeast are presented and accompanied by graphics, tables, and maps that highlight spatial differences and topical issues in the Northeast Region. These narratives also highlight the opportunities and potential barriers to achieving substantial reduction in regional wildland fire risks. Alternatives and options identify opportunities to focus the Cohesive Strategy on important regional values including: fire fighter and public safety, cultural values, ecological values, marketable products, and property owner values. The analysis looks at wildland fire related challenges, and identifies opportunities within the region, at the county level where information exists. The alternatives and options are not mutually exclusive. *There is no one preferred alternative to be applied across the Northeast region.* Instead the alternatives present investment options that need to be balanced to achieve each of the national Cohesive Strategy goals and implement effective wildland fire management consistent with the applicable land management objectives.

The wildland fire management community and those potentially affected by wildfire have expressed their order of preference for investing in these options by Cohesive Strategy goal in the Northeast given the landscape conditions and available resources that currently exist. The actual mix of investments is dependent on many factors such as, but not limited to: local land management objectives, specific community needs, agency mission, potential risks, existing barriers, available skills, qualified personnel, budgets, equipment, and other resources. The approximate ranges of desired investment levels expressed by the Northeast Regional Strategy Committee for each Cohesive Strategy goal on an annual basis are:

Goal 1: Resilient Landscapes	30-35%
Goal 2: Fire Adapted Communities	20-25%
Goal 3: Wildfire Response	40-50%

There are some distinct differences in goal investment preferences with the Federal and Tribal agencies indicating a more balanced distribution among the three goals, approximately a third for each goal. Federal agencies indicate the highest percentage of investment in fuel treatment activities. The State agencies prefer substantially less investment in goal 1 and would invest more in goal 3 as they have greater (and often mandated) protection responsibilities. This is true especially for local fire departments and agencies as they are primarily responsible for protection of life and property. Due to the relatively large amounts of wildland-urban interface in the Northeast and the associated complexities and risks to life and property, a rapid, effective response to wildfire is often the most cost effective and lowest impact approach to dealing with current wildland fire management issues on the Northeast.

There is also a difference in preferred options for investing in the three Cohesive Strategy goals by geographic sub-region within the Northeast U.S. The investments are much more balanced among sub-regions than among agencies and organizations within each sub-region. There is a noticeable difference between New England and New York and the Mid-Atlantic and Mid-West in goal 1 investments (fuel treatments activities). This may be due to less available and fragmented acreage to treat, seasonal variability of the “burning window”, and especially to a significantly higher population density limiting the feasibility of treatments due to proximity to urban areas and related health concerns to smoke from burning.

This identification of alternative approaches and options, along with an analysis of risk, barriers, critical



success factors and opportunities is intended for use by agencies, organizations and communities at the federal, state, and local levels for their individual and collaborative wildland fire and other land management planning efforts. This risk analysis will also serve as a foundation for the Northeast Regional Action Plan report to be developed later this year.

At the national level, Phase III will continue with development of a national risk analysis and a national action plan. The National Science and Analysis Team (NSAT) will develop a comparative risk model using the data sets, and will develop a national trade-off analysis. When the comparative risk and trade-off analyses are complete, a National Phase III Risk Analysis Report will be written to bring together the issues and alternatives discussed in the three regional reports. A National Action Plan will be developed based on the national risk and trade-off analyses.