

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

A Phase III Northeast Regional Committee Report

SYNOPSIS

October 31, 2012



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

Introduction and Background

This Northeast Regional Risk Analysis (October 15, 2012) 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 have been identified. 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 risk analysis will also serve as a foundation for the Northeast Regional Action Plan report to be developed later this year.

The Three National Goals

Three factors were identified as the primary focus areas for the Cohesive Strategy. They are: restoring and maintaining resilient landscapes, creating fire-adapted communities, and responding to wildfires. Flowing from the guiding principles and core values, and primary focus areas, three national goals were adopted in Phase I. The three national goals are:

- **Restore and Maintain Landscapes:** Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.
- **Fire-Adapted Communities:** Human populations and infrastructure can withstand a wildfire without loss of life and property.
- **Wildfire Response:** All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildfire management decisions.

Success in achieving the three broad goals of the Cohesive Strategy is a long-term proposition – no single decision by policymakers or management actions by land managers will solve our Nation's complex the wildland fire issues. The strength and success of this Phase III report will lie in its ability to motivate collaborative actions to reduce wildland fire risk by the diverse agencies, organizations, and partners involved in the wildland fire issue.

Alternatives and options neither identify specific implementation actions (i.e., who will do what, where, how, and when), nor specific process actions. However, it is expected that the analysis will inform specific actions the region may wish to pursue, such as increasing investments that improve the capability of local fire departments to assist with wildland fire suppression, or fostering collaborative action by communities that reduces their exposure to wildland fire risk. These types of specific actions will be identified as part of the Northeast Regional Action Plan developed by the Northeast Regional Strategy Committee's (RSC) in parallel with the other two regions.



Description of Regional Action Plan Requirements

One of the deliverables of Phase III is the completion of a Regional Action Plan by each RSC (as agreed upon in the Comprehensive Work Plan). Regional Action Plans are to be completed by **February 15, 2013**. The template and example below is intended to illustrate the minimum content components and format for each Regional Action Plan.

Completing the Regional Action Plan

The intent of the Regional Action Plan is to capture actions the RSC has agreed to pursue now and into the next five years as a result of the regional dialogs in Phases II and III that will enable them to make progress in achieving the three National Goals of the Cohesive Strategy. Specific actions in the Regional Action Plan are likely to be process-related and in response to:

1. The national goals objectives (identified as outcomes in the Phase I Cohesive Strategy) and regional objectives (identified in Phase II Regional Assessments).
2. Immediate opportunities and successes identified in Phase II and refined in Phase III;
3. Barriers and solutions within the region's decision-space;
4. The pursuit of one of the initial or refined alternatives in whole or in part;
5. Information as a result of the regional or national risk analysis;
6. Feedback received through the communication and outreach effort; and/or
7. Feedback based on stakeholder involvement throughout Phase III.

The Regional Action Plan will also include the identification of performance measures. The action plan will identify who will do what, where, and by when. The intent of the Regional Action Plan is to create a mechanism for recording commitments the RSC has made, provide an immediate and tangible product to report regional successes to Congress and stakeholders, and ensure accountability in completing the actions. The actions in the Regional Action Plan document the initial efforts in implementation of the National Cohesive Wildland Fire Management Strategy at the regional and local level in an effort to make an immediate and positive difference on the ground.

It is recognized that further consideration and discussion of alternatives and options developed as part of the regional risk analysis will be necessary before adopting and implementing any alternative regional strategy. Therefore, the Regional Action Plan actions will be limited to those actions and commitments that can be recorded now. Future discussion of the implementation of alternatives resulting from the regional risk analysis may supplement or amend Regional Action Plans.

The following is an example of a regional option for the regional action plan template that must be completed for each option developed in the Northeast Regional Risk Analysis Report (performance measures will be added at a later date after the actions have been developed). The complete set of regional options, along with the risks, barriers, critical success factors, and opportunities that have been identified in the Northeast (NE) Regional Risk Analysis Report follow the example below.



EXAMPLE OF ACTION PLAN TEMPLATE

COHESIVE STRATEGY GOAL 1: *Restore and Maintain Landscapes:* *Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.*

Northeast Regional Option:

Option 1B - Emphasize and actively manage to maintain, restore, and expand when possible, to increase the extent of fire dependent ecosystems and expand the use of fire as a disturbance process. Employ mechanical or other non-fire treatments to reduce risk before re-introducing fire to the ecosystem.

Implementation Actions:

- Promote and use fire to emulate natural disturbance patterns to maintain and improve ecological systems, balancing social, cultural, and economic needs, especially over large contiguous landscapes (example).

Optional Items: If possible, please propose suggestions for the following accountability details (*the NE RSC will complete these details if needed*):

Scope: Identify the scope (national, state, Cohesive Strategy region, local, etc.).

Lead: Identify leads who will work with other collaborators to ensure accomplishment of the task (make sure the lead and additional collaborators track with the scope and the task).

Collaborators: Identify other collaborators to work with the lead.

Implementation Timeframe: Identify timeframes to accomplish the tasks and achieve the performance measure targets that are set including annual and longer-term targets.

- Additional implementation actions (add as many as needed below)



Summary List of Northeast Regional Options by Cohesive Strategy Goal

The following is a list of the set of options identified as preferred approaches to addressing the Cohesive Strategy goals in the Northeast:

COHESIVE STRATEGY GOAL 1: *Restore and Maintain Landscapes* – *Landscapes across all jurisdictions are resilient to fire related disturbances in accordance with management objectives.*

Option 1A - Increase the use of prescribed fire where multiple benefits can be achieved including, but not limited to, wildlife habitat, silviculture, threatened and endangered species habitat, ecosystem restoration, and where fire can be effective in control or eradication of non-native invasive plants.

Option 1B - Emphasize and actively manage to maintain, restore, and expand when possible, to increase the extent of fire dependent ecosystems and expand the use of fire as a disturbance process. Employ mechanical or other non-fire treatments to reduce risk before re-introducing fire to the ecosystem.

Option 1C - Focus on mitigating “event” fuels through mechanical treatments and utilizing markets for biomass products to clean up and reduce the potential fire hazard from blowdowns, ice storms, and other forest damaging events.

COHESIVE STRATEGY GOAL 2: *Fire-Adapted Communities* – *Human populations and infrastructure can survive a wildland fire. Communities can assess the level of wildfire risk to their communities and share responsibility for mitigating both the threat and the consequences.*

Option 2A - Focus on promoting and supporting local adaptation activities to be taken by communities such as increasing capacity of volunteer fire departments (VFD), passing ordinances, developing Community Wildfire Protection Plans (CWPP), joining Firewise, or other similar programs.

Option 2B - Focus on directing hazardous fuel treatments to the wildland-urban interfaces (WUI). Treatments of WUI lands should provide a broader area of effective protection and reduced risk.

Option 2C - Focus on promoting and supporting prevention programs and activities (targeting them toward reducing when and where fires occur).



COHESIVE STRATEGY GOAL 3: *Response to Wildfire* – All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildland fire management decisions.

Option 3A - Improve the organizational efficiency and effectiveness of the wildland fire community (pre-suppression and pre-planning; administration). Areas to address include:

- a) Development of Memorandum of Understandings (MOU) and Memorandum of Agreements (MOA)
- b) Standardizing and streamlining training and qualifications
- c) Radio compatibility and interoperability
- d) Appropriate suppression and detection responsibilities regardless of landownership through agreements or contracts
- e) Sharing of personnel (co-funding or contracting)

Option 3B - Increase the initial response capacity (initial attack). Areas to address include:

- a) Support rural Fire Departments (FD) to include wildland fire training, personal protective equipment (PPE), equipment, risk of injuries
- b) Return to use of “militia” by all land management agencies with wildland fire responsibility
- c) Reduce redundant response and reallocate/increase resources to areas needing stronger initial attack
- d) Use existing capacity without interference of certain issues

Option 3C - Further develop shared response capacity (extended attack; long duration fire potential). Areas addressed include:

- a) Improve mobility of resources to respond to larger, longer fires; better utilize Compacts
- b) Additional resources can be used for initial response, but would not be primary initial response resources
- c) Remove administrative and fiscal barriers that limit use of resources during extended or long-duration fires



Descriptions of Northeast Regional Options

COHESIVE STRATEGY GOAL 1: *Restore and Maintain Landscapes* – *Landscapes across all jurisdictions are resilient to fire related disturbances in accordance with management objectives.*

Option 1A - Increase the use of prescribed fire where multiple benefits can be achieved including, but not limited to, wildlife habitat, silviculture, threatened and endangered species habitat, ecosystem restoration, and where fire can be effective in control or eradication of non-native invasive plants.

Brief Description of this Option

Native Americans and early settlers used fire to clear land or maintain open grasslands and forests of the Northeast (NASF Prescribed Fire Survey 2012). In the past when and where a burn would take place was solely the decision of the owner or manager. Much of the Northeast forests and open areas were created and maintained through repeated burning, either through natural causes like lightning or by humans. Landowners in the Northeast region have diverse interests and objectives for their land including wildlife habitat, recreation and tourism, tax interests, aesthetics, and ecosystem health and sustainability. Stakeholder input has indicated that prescribed burning is used to meet a wide range of objectives, and that under many scenarios burning actually accomplishes more than the primary objective. Prescribed fire and fuels reduction are often compatible practices if it helps achieve the primary objectives for the land.

Risks, Barriers and Critical Success Factors Identified

Due to the absence of wildland fire today combined with fragmentation due to land use variability, many species of plants and animals which depend on fire to maintain habitats are at risk.

Of the nine impediments to prescribed burning identified nationally – capacity, weather, resources, and permitting and legal concerns are the top four prescribed fire implementation challenges in the Northeast, although every concern occurs someplace within the region.

1. Capacity Concerns - Limited personnel, training, private contractors, partnerships, equipment
2. Weather Concerns - Narrow burn windows, drought, available burn days
3. Air Quality/Smoke Management Concerns - Visibility, nuisance, emission impacts
4. Resource Concerns - Limited funding, high implementation costs
5. Public Perception Concerns - Lack of public understanding/acceptance
6. Liability/Insurance Concerns - Landowner liability, insurance availability and/or cost
7. Permitting/Legal Concerns - State law, burn bans, local restrictions, NEPA process
8. WUI/Population Growth Concerns - Urbanization, influx of new residents
9. Low Priority - Agency or landowner priority, too difficult



Other challenges to expanding burning in the Northeast are:

- Conflicts with forest products utilization and economic losses. Scorched bark and damage to wood can affect how a tree can be used.
- Wildfire season is also prescribed burning season in many areas. Additional personnel and equipment are often needed to do both safely, which adds cost that strain already stretched budgets.

Opportunities for Action

Some opportunities and ways to expand the use of prescribed fire are:

- Expand burning in those areas farther away from heavily populated areas, with a variety of conservation partners. Potential expansion could be found in areas where private lands adjacent to public lands are managed for multiple purposes. Identify areas where burning is going on successfully and seek collaboration with adjacent or intermingled public and private partners.
- Identification of areas where there is compatible land management objectives will also be important to collaborative burning efforts especially where private land owners can take advantage of partnering with agencies and organizations that have a skilled burning workforce and are burning on adjacent lands.
- There are opportunities for increased levels of outreach and education that can be tailored to local conditions and public areas.
- Increase the number of prescribed fire councils to assist public and private burners, and share the voice of burners statewide.
- Expand The Nature Conservancy (TNC) sponsored fire learning networks (FLN).
- Prioritize burning among local organizations and agencies could resolve the capacity issue, by collaborating on the highest priority areas when the burning windows are available.
- Pursue suppression agreements with agencies and organizations to free up personnel for prescribed burning.
- Establish a Joint Fire Science program to cover all areas of the Northeast.

Option 1B - Emphasize and actively manage to maintain, restore, and expand when possible, to increase the extent of fire dependent ecosystems and expand the use of fire as a disturbance process. Employ mechanical or other non-fire treatments to reduce risk before re-introducing fire to the ecosystem.

Brief Description of this Option

Wildland fire has played a key role in shaping the ecosystems of the Northeast. Both lightning caused and human ignited fires once burned across landscapes creating a mosaic of conditions and habitats. Land uses, values, and fire suppression have changed the distribution, function, and sustainability of fire



dependent systems. Some ecosystems that depend on fire, such as prairies were converted for mostly agricultural purposes, while other fire maintained ecosystems converted to more closed canopied forests. Expanding development such as housing and commercial developments also increases costs for treatments and limits managers' ability to use beneficial fire on the land as a management tool. Smoke from prescribed burning or from wildfire can have negative impacts on public health and safety, which can restrict using fire to restore ecosystem health.

Risks, Barriers and Critical Success Factors Identified

- Based on the fire regime graphs, fire is lacking for the majority of these types (pine barrens, Boreal spruce and pine, jack pine, northern pine, mixed pine/oak communities, and oak and oak-hickory communities) and when overlaid with wildland-urban interface (WUI) area distribution that tends to have the highest values potentially at risk.
- The majority of land in the Northeast is in private ownership, and large areas of public land are generally isolated from each other (i.e., fragmentation).
- Small land parcels can be more vulnerable to many influences such as invasion from non-native species, or more disturbances such as wildfires, and may take costly conservation measures to maintain.
- In cases where fire intensity creates an unacceptable risk of escape or fire severity may be too high to achieve objectives removing some of the fuels like trees, shrubs, dead and down material may be necessary to be successful.
- Market conditions, as affected by product availability of raw materials and profitability have caused losses of the wood product industry whose skilled workforce and machinery are needed to achieve many of the composition and structure objectives as efficient and cost effective.
- Wildfire is aggressively suppressed in those areas that experience high fire intensity and areas where fires burn more readily, such as ecosystems adapted to recurrent fire. This can have an unintentional negative affect allowing fuels to build-up which in turn increases the risk of higher intensity fires.
- Fragmentation and development have reduced habitats for fire-dependent species, pushing them toward listing if not already listed as threatened or endangered.

Opportunities for Action

- From a landscape perspective, restoration opportunities are probably greatest on oak and pine woodlands and forests, since lands formerly harboring tallgrass prairie-savanna systems have been largely converted to agriculture, with little land-use change in sight.
- By focusing on large, contiguous ownerships, especially on federal and state lands where restoration is a priority, larger landscapes could be burned, thereby maximizing benefit-to-cost ratios (spreading relatively fixed costs over a larger area).
- Focus efforts to identify and collaborate on public and conservation areas such as state natural areas, research natural areas, special interest areas, wilderness areas, or other largely intact fire dependent ecosystems are managed for. These focal areas serve as opportunities for expansion where possible.



Option 1C - Focus on mitigating “event” fuels through mechanical treatments and utilizing markets for biomass products to clean up and reduce the potential fire hazard from blowdowns, ice storms, and other forest damaging events.

Brief Description of this Option

Fuel hazards arise from natural events. Wind, ice, disease and insects can create large areas of very high fuel loading in forested areas. All ecosystems can experience short and long term altered fire behavior characteristics if event fuels are left untreated. Removal of event fuels is more crucial when the proximity to homes and other infrastructure could lead to significant economic loss if a wildfire occurs. Event fuels may also represent an economic opportunity to supply forest product needs ranging from biomass to higher valued products.

Risks, Barriers and Critical Success Factors Identified

- While many disturbances are either too small or otherwise not applicable to creating event fuels, others do create substantial coarse woody debris and extensive mortality that may exacerbate wildland fire management problems.
- In the northern tier of the region, especially in the Lake States, high winds in excess of 100 mph have resulted in large blowdowns in the recent past which can significantly increase the risk and impacts from large catastrophic wildfires in those areas.
- Recent economic trends in the forest products industry has resulted in a decline in wood consumption by pulp mills and other sectors of the market. Declines in the forest products industry are due to the recession of 2007-2009 and a continued weak housing sector, international competition for forest product commodities once sourced primarily in North America, and a lower overall demand for print media due to increased use of electronic alternatives.
- Raw material prices have declined and supply issues are largely secondary to end product demand. When prices for raw materials are historically low as they are currently, utilization of event fuels may be less feasible due to more complex operational requirements and less than optimal product characteristics. Thus, while the capacity to use event fuels exists, the economic incentives are currently lacking.

Opportunities for Action

- Extreme winds that cause excessive fuel loads may also be seen as potential opportunities to supply raw material to the wood products industry. The forest products industry is integral to cost effective restoration, hazard mitigation, and fuels reduction. The infrastructure for utilization of pulp, saw timber, and biomass as well as skills and equipment are all necessary for cost effective treatments.
- A review of mill production in the region does exhibit a general coincidence of mill capacity with recent forest disturbances in Minnesota, Wisconsin, Michigan, Pennsylvania and New York.



Thus, the capacity to utilize event fuels exists where a preliminary analysis suggests they are most likely to be needed.

- In the absence of a less than robust demand for raw materials other incentives are needed for landowners to clean up event fuels. These incentives do exist and stem from programs sponsored by the federal and state agencies. Some examples include the Forest Stewardship Program, Conservation Reserve Program, and the Forest Land Enhancement Program. A more complete assessment of these programs is needed. While differences exist among these and other programs, they all provide some degree of assistance or financial aid to landowners to manage their land using the best available scientific and professional guidance. Abatement of hazardous fuel would be a qualifying activity in some instances.
- Existing federal and state programs may be helpful in providing incentives for private landowners to cleanup following major blow downs or insect outbreaks. Coordination among the states within the region would facilitate the best use of limited funds for this purpose.



COHESIVE STRATEGY GOAL 2: *Fire-Adapted Communities* – Human populations and infrastructure can survive a wildland fire. Communities can assess the level of wildfire risk to their communities and share responsibility for mitigating both the threat and the consequences.

Option 2A - Focus on promoting and supporting local adaptation activities to be taken by communities such as increasing capacity of volunteer fire departments (VFD), passing ordinances, developing Community Wildfire Protection Plans (CWPP), joining Firewise, or other similar programs.

Brief Description of this Option

This goal and investment option focuses on creating fire-adapted communities that protect homes and infrastructure by promoting fire resistance within those communities. Becoming a fire-adapted community reduces the chance of structure and infrastructure losses through wildfires. Loss of structures can create economic and emotional stress on a community. Creating fire-adapted communities is an investment of relatively few dollars that can be effective in preventing large losses due to structure fires; increase public awareness of wildfires; reduce fire ignitions; make wildfires easier to extinguish; and reduce resource losses.

Risks, Barriers and Critical Success Factors Identified

- Local governments can further adopt Firewise principles or CWPP recommendations by establishing zoning and building ordinances containing fire adaptation principles. Often rural counties do not adopt building codes and lack the capability to enforce such ordinances in any case.
- Developers creating “natural developments” often have covenants for the community which precludes fuels treatments within the developments. Green building programs such as Leadership in Energy and Environmental Design (LEED) often promote the use of natural materials on a building’s exterior along with natural vegetation adjacent to the building. The green guides do not consider wildfire risk in their recommendations.
- Across the country VFDs are finding increasing difficulty recruiting and retaining personnel. Part of the cause is the increased training requirements for structure firefighting an Emergency Management Services (EMS). Creating a fire-adapted community may be a low priority for VFDs.
- Apparently the large wildfires in the Northeast have not helped develop interest in Firewise beyond the communities directly impacted by the large fires, likely due to their relatively low frequency and therefore low public awareness.

Opportunities for Action

- Local fire departments are looked to as the community experts with fire both structure and wildfire. Fire department personnel, especially volunteer fire departments (VFD), have



demonstrated service to their community. Fire department personnel can provide the leadership for Firewise and CWPP programs, and with recommending and enforcing ordinances.

- Wildfires that start structure fires increase the firefighting equipment and personnel needs exponentially. Creating fire-adapted communities would reduce the number of wildland structure fire combinations – thus reducing the burden on VFDs.
- Programs like the National Fire Protection Association’s (NFPA) Firewise communities, CWPPs, and local ordinances can help implementation of the fire adapted communities concept.
- The creation of a fire adapted community starts at the local level. Implementing fire-adapted communities requires the engagement of public and private organizations. Local governments include county boards, townships, and city governments. Public and private organizations could include volunteer fire departments, home owner associations and other public service organizations.

Option 2B - Focus on directing hazardous fuel treatments to the wildland-urban interfaces (WUI). Treatments of WUI lands should provide a broader area of effective protection and reduced risk.

Brief Description of this Option

Although the northeastern United States typically is not considered to be regularly at risk from catastrophic wildland – urban interface fires, threatened areas do exist. During development of Phase II of the Cohesive Strategy, the Northeast Regional Strategy Committee identified regional specific issues leading to wildland fire management concerns.

Risks, Barriers and Critical Success Factors Identified

- Research results indicate previous experience with wildland fire was a major factor influencing respondents’ perception of fire risk.
- Community Wildfire Protection Planning (CWPP) as an incentive is not as useful in the eastern USA, where public land is less dominant and the perceived fire risk is lower than in the West.

Opportunities for Action

- Local land managers could conduct education programs familiarizing bordering communities the positive benefits of hazardous fuels reduction treatments, including ecosystem health. Knowledge about specific fuel treatments positively influence support for fuels reduction treatments.
- Assistance to communities and counties could be provided by WUI coordinators or specialists who are trained, understand the needs, can assist and coordinate in design and implementation of fuels reduction, and are linked with sources of available funding such as grants.
- Identifying the Wildland-Urban Interface (WUI) in large landscape-level treatments or projects in scope gives communities and agencies an opportunity to make management distinctions between developed space and public lands.



- CWPPs can provide the opportunity for local government to influence actions on adjacent public land, by establishing local boundaries of the WUI.

Option 2C - Focus on promoting and supporting prevention programs and activities (targeting them toward reducing when and where fires occur)

Brief Description of this Option

The Northeast Region as defined for the National Cohesive Wildland Fire Management Strategy, encompasses 20 Midwestern and Northeastern States and the District of Columbia. The 20 States comprise the most densely populated region of the nation, home for more than 41 percent of Americans. The vast majority of the land is in private ownership, and while wildfires occur year round, spikes occur in the spring and fall. Homes and infrastructure are involved in a high percentage of wildfires in the Region. Due to the heavy population and large proportion of landscape in the WUI/intermix even the small wildfires threaten at least one and usually many structures which increases risk and complexity for fire fighters. *Preventing unwanted fires and increasing homeowner shared responsibility will reduce firefighter risk and decrease need for firefighting response.*

Risks, Barriers and Critical Success Factors Identified

- With the exception of northern Minnesota and Wisconsin, lightning starts less than 5% of the wildfires throughout the Northeast. Human caused ignitions include debris burning, intentional (incendiary), equipment (trains, ATV's, etc) and down power lines, smoking, children playing with fire, cooking, and heating appliances.
- A barrier to reducing unwanted fires is the average home owner does not perceive a high risk from wildfires in the Northeast which can lead to complacency in the use of fire while burning debris or use of equipment.

Opportunities for Action

- Identifying and addressing causes of wildfires through prevention programs is an effective approach in reducing the number of wildfires and consequently risk to firefighters in the Northeast Region.
- Proper investigation of wildfire origin and cause is essential to determine when and where education and prevention programs can be targeted. When intentional fires are identified in an area the proper collaboration with law enforcement investigation, enforcement, and prosecution of arson cases can go a long way toward reducing fires and firefighter risk.
- Wildfire prevention programs such as Smokey Bear and Firewise community programs have been in place for many years, but the key is the ability to target the appropriate audience and provide the best fire prevention message with the proper timing.
- By utilizing the county base level data, the Northeast can identify concentrations of arson and accidental human caused wildfires and direct prevention activities in the most needed areas.



COHESIVE STRATEGY GOAL 3: *Response to Fire* – All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildland fire management decisions.

Option 3A - Improve the organizational efficiency and effectiveness of the wildland fire community (pre-suppression and pre-planning; administration). Areas to address include:

- a) Development of Memorandum of Understandings (MOU) and Memorandum of Agreements (MOA)
- b) Standardizing and streamlining training and qualifications
- c) Radio compatibility and interoperability
- d) Appropriate suppression and detection responsibilities regardless of landownership through agreements or contracts
- e) Sharing of personnel (co-funding or contracting)

Brief Description of this Option

Success of the Cohesive Strategy and of this option depends on addressing the following barriers and critical success factors:

“Investment in firefighting workforce - Need to invest in human capital at the field level. Budget cuts are reducing the number and quality of the on-the-ground firefighting workforce. Budget cuts always seem to land at the field more than at the national level.

Continued and increased investment in the firefighting workforce is necessary in order to maintain capacity to respond to wildfire, mitigate fire hazards, and restore/maintain landscapes. A lack of investment in the firefighting workforce will lead to fewer firefighters on the ground, reduced safety, reduced capability at accomplishing local projects, and reduced initial attack success. In the long term we face a generation gap in the fire workforce available for future leadership of the program.”

Impacts from a lack of adequate investment affect all agencies and organizations with wildland fire responsibilities – local, state and federal. There is a need to develop a wildland fire management program that focuses efforts on maintaining and developing field level leaders and workforce.

Risks, Barriers and Critical Success Factors Identified

- In the Northeast, the number of agreements and the number of entities is very large. The workload and complexity of completing and maintaining agreements is significant. The ability to exchange funds between entities often fails due to differing fiscal years, differing financial process and programs, and personnel constraints. Currently, transferring funds between entities often requires more administrative work than the actual work itself.
- Many resources that would otherwise be available for mobilization are unavailable because of cumbersome qualification standards and procedures. As a result, resources are not available for mobilization.



- Lack of radio compatibility and interoperability is a local issue occurring nationally. There is a need for radio compatibility between digital, analog, narrowband, 800 mgz, 700 mgz systems.
- There is a need to remove policy barriers and process complexities which affect the ability to effectively and efficiently share resources, not only for wildfire, but for fuels and prescribed fire work. The statutory authority for the United States Forest Service (USFS) to pay for state resources responding to another state's incident, even though the receiving state reimburses the USFS for those responding resources, has been questioned.
- Sharing of personnel is successful in the Northeast, but there is significant complexity in exchanging funds to pay for shared personnel. State Compact to Compact transactions are more successful than federal transactions.

Opportunities for Action

- All stakeholders with wildland fire responsibilities should be represented by either the National Wildfire Coordinating Group (NWCG) or another entity that represents all interests. The current charter for NWCG requires national wildland fire management responsibilities. Reexamine the membership of the NWCG Executive Board to ensure local government is adequately represented.
- There is a need to shorten the time for attaining qualifications which is part of the NWCG Workforce Development Goal and IMT Succession Project. Agency support for implementation of this effort is required.
- Through the implementation of the Cohesive Strategy, there is an opportunity to resolve and simplify frequency use authorization and licensing processes for all agencies (local, state, federal and tribal), but this issue needs recognition and action at the national level.
- Fire Compacts within the Northeast that have been successful in sharing resources via state-to-state compact procedures and transactions.
- Maintaining and enhancing the role of the Eastern Area Coordinating Group and its Working Teams.
- Working at the local level to identify policy barriers that prevent the effective sharing of resources. Working at the local level to identify complexities that need to be simplified in order to efficiently share resources.
- Rectifying authority issues via federal legislation, for the USFS to mobilize state and local resources via the Master Cooperative Wildfire Management and Stafford Act Response Agreement, or implement a work around.

Option 3B - Increase the initial response capacity (initial attack). Areas to address include:

- Support rural Fire Departments (FD) to include wildland fire training, personal protective equipment (PPE), equipment, risk of injuries
- Return to use of "militia" by all land management agencies with wildland fire responsibility
- Reduce redundant response and reallocate/increase resources to areas needing stronger initial attack
- Use existing capacity without interference of certain issues



Brief Description of this Option

The Northeast Region has unique challenges in wildland fire management, particularly in initial attack response. Landownership in the Northeast is overwhelmingly in private ownership, with less than 10% being publicly owned by federal, state or local governments. The majority of land is protected by local fire departments, not large land-management agencies. These rural fire departments may or may not have wildland fire training and adequate equipment. Additionally, where public and tribal lands do occur, land ownership is highly fragmented, resulting in many jurisdictions being responsible for initial and long term fire suppression response. Many of these jurisdictions go long periods without experiencing a significant wildland fire, even though they experience a high number of ignitions. These ignitions typically create the most damage within the first burning period, so often obtaining resources from outside the jurisdiction are not feasible. Maintaining or building capacity, particularly at the local level, is critical to the successful suppression of fires in the Northeast.

Risks, Barriers and Critical Success Factors identified

- State agencies and communities can be quickly inundated with multiple ignitions, and the damage to homes, high value property and forest land occurs in a short period of time. Particularly in spring and fall, the fire danger can increase so quickly that pre-positioning of resources may not be feasible.
- Due to the many jurisdictions in highly populated areas sometimes experience a greater than needed response to fires. It is not uncommon to have 4 or 5 fire departments, or more, respond to a small incident. Over-staffing a small incident can bring about cost inefficiencies, confusion of command, ineffectiveness, and cause some major safety problems.
- There are issues relating to firefighter qualification standards that impede the sharing of resources. While most states in the Northeast suppress their fires quickly and effectively, with minimal injuries and safety problems, many of these resources do not meet the existing national standard. The movement and sharing of resources to fires on federal land is very restrictive.

Opportunities for Action

- Local fire departments play a key role in initial attack success in the Northeast. The better equipped and trained they are, the better chance the fire will be brought under control quickly and safely, thereby mitigating the need for state and/or federal support for a larger fire.
- In order to maintain initial attack effectiveness at the local level, opportunities to ensure continued support for fire departments in the form of wildland fire training, equipment, personal protective (safety) equipment, and overall coordination will be crucial. This investment in the firefighting workforce at the field level has been identified as a national critical success factor.
- These trained firefighters also build capacity for resource needs during busy fire periods and all-risk incidents nationally.
- Within the region, there is a need to look closely at those areas that have greater initial attack demands to make sure that sufficient resources are available. This may mean a reallocation or



shifting of resources within regions or sub-regions. Close attention should be paid to those areas where multiple agencies have jurisdiction, each with their own initial attack response resources. Some of these areas may be better off protected by one agency, thereby allowing the other resources to be moved to areas that are deficient.

- The Northeast Region is well organized sub-regionally with the existence of four forest fire compacts that cover all 20 states. Federal agencies are often part of each compact organization as associate members or ad hoc participants. These compacts have greatly increased available resources for fire management in the Northeast Region and need to be supported and enhanced.

Option 3C - Further develop shared response capacity (extended attack; long duration fire potential). Areas addressed include:

- Improve mobility of resources to respond to larger, longer fires; better utilize Compacts
- Additional resources can be used for initial response, but would not be primary initial response resources
- Remove administrative and fiscal barriers that limit use of resources during extended or long-duration fires

Brief Description of this Option

Sharing resources is standard operating procedure in the Northeast Region. It is an efficient and effective means of managing incidents while minimizing costs. Reductions in fire program budgets and fire staff, as well as the multi-jurisdictional nature of most incidents, have required an ongoing interagency response to incidents. Although the frequency of large incidents has been at historical lows over the last decade, the size of incidents is overshadowed by smaller very complex incidents and/or numerous incidents compressed into a short timeframe. These situations require the sharing of resources on a continual basis. In addition to the local sharing of resources among local, state and federal agencies within a state, the Northeast Region has well established forest fire compacts that are utilized to share resources among the states and provinces. These governmental entities work well to coordinate and dispatch resources over a broad geographic area, and enhance resource sharing for efficient and effective response.

Risks, Barriers and Critical Success Factors Identified

- Incompatible firefighter qualifications is probably the largest single barrier to sharing resources in the Northeast Region. While the NWCG qualifications standards work well for most national mobilizations, they have not been fine tuned for efficient use among the local, state and federal agencies in the Northeast Region.
- There is a lack of liability laws that precludes the sharing of resources across state lines between most states and some compacts.
- Fund transfers are a problem for inter-state and inter-compact sharing. There needs to be a common funding transfer mechanism established for handling initial travel and lodging costs for firefighters going to incidents. Many states cannot pay for travel costs such as airline tickets, buses, rental cars etc. for entities outside their state.



- States need more authority to hire trained firefighters as project employees for local use and for export on regional and national incidents. Many states do not have the authority to hire qualified firefighters that are not already agency staff.
- Some states have ceased to participate in mutual aid at the very time that it is needed such as when they anticipate another type of event such as a hurricane or other weather event. Wildland firefighters in nearby States are often left immobile.

Opportunities for Action

- Mobilizing firefighters and Incident Management Team members to other geographic areas for campaign fires is one of the few ways that NWCG qualifications can be acquired and maintained. A more structured and effective national training and experience plan needs to be developed, and implemented, in order for the Northeast Region to be able to more effectively acquire and maintain resources that meet the national standards.
- No single agency can afford to train and staff an adequate number of wildland firefighters to meet its needs during above average years. The most efficient way to achieve proper staffing is to rely on mutual aid from adjoining jurisdictions and cooperators. The most cost effective way to provide wildland fire management is to build partnerships and establish mutual aid organizations and agreements. It is far cheaper to borrow another agency's well trained firefighters when needed than train more of your own that are not needed on a regular basis.



Recommendations and Conclusions

In this report, the Northeast RSC has outlined a set of priority options to address the Cohesive Strategy goals on the basis of stakeholder input from the fire community throughout the Northeast Region. These options are each considered feasible approaches to addressing each of the three goals depending on such factors and agency mission, geographic sub-region and forest ecotype, community support, available trained resources, proximity to population centers, and a myriad of other factors. These options have been developed to help the Northeast wildland fire community address the risks and barriers outlined in this report.

The three alternative approaches to the Cohesive Strategy goals as described above represent sets of investment options agencies and jurisdictions can use to guide the investments they choose to make in addressing the three Cohesive Strategy goals as according to their plans and needs. In an analysis done by the RSC of the input from the fire community and their stakeholders, there are some interesting perspectives to point out that may be useful to decision-makers and fire management specialists. The approximate ranges of investment levels preferred by the Northeast Regional Strategy Committee, by 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%

Among the three Cohesive Strategy goals there is a difference in preferred options for investing in the three Cohesive Strategy goals by agency – at the federal, state, tribal and local levels. There are some distinct differences in goal investment preferences with the Federal and Tribal agencies showing 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 agencies as they are primarily responsible for protection of life and property.

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 acreage to treat, a shorter burning “window” due to seasonal variability, 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.

These are not the only possible options, and other combinations of options may be more appropriate for a given locality or jurisdiction depending on local plans and objectives, risks, agency mission, available resources, and other driving factors. These options are intended to illustrate some feasible approaches and provide a starting point for any further analysis or planning effort a federal, tribal, state or local jurisdiction wishes to undertake to address a wildland fire management set of issues through the Cohesive Strategy goals and framework.