

ITASCA COUNTY
COMMUNITY WILDFIRE PROTECTION PLAN

December 2006



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I. Introduction:

1. Planning and Cooperation.

Itasca County community wildfire protection planning began in May of 2005, led by local county government officials working with citizens, area fire departments, the Minnesota Department of Natural Resources, and the U.S. Forest Service. This planning process was introduced to the Itasca County Fire Chiefs Association in July of 2005 to inform them of the plan requirements and objectives, and to solicit their support and expertise in the planning process. The Itasca County Fire Chief's Association, is recognized as a very progressive group of proactive leaders by their peers in the fire service. Through the collaborative development of this countywide mutual aid organization, they provide information sharing, problem solving, training in structural and wildland fire, mutual aid to neighboring fire departments, funding, management of other risks, and a sounding board for many other issues which face the fire service in Itasca County.

The core group met to determine interest in developing a Community Wildfire Protection Plan (CWPP) and to initiate an interagency inventory and assessment of fuel hazards and community related infrastructure protection and mitigation needs. The multi-faceted nature of problems addressed by a CWPP necessitated communication and cooperation across private and public lands, administrative boundaries, geographic regions and other special areas of interest. Several meetings were held in local communities during project planning phases. Community meetings are used to address community needs and priorities relating to community fire protection, safety, and healthy forest restoration. Input was solicited from a broad representation of stakeholder groups including local government, state and federal agencies, Leech Lake Tribal Council and citizens who worked together to make decisions to establish priorities, cooperate on activities, and to increase the public awareness of wildfire risks to Itasca County communities and their surrounding environment.



Citizen Task Force Members: Bill Brink, Oliver Juntunen, Jim Marshall,
Chairman Jack Gunderson, Norm Ford and Russ Klegstad.

The Itasca County CWPP has two objectives. **First**, it identifies and prioritizes Wildland Urban Interface (WUI) areas within Itasca County (including federal and non-federal lands) for hazardous fuels reduction treatments and recommends methods for achieving hazardous fuels reductions. **Second**, the plan outlines measures for reducing fire danger to structures throughout Itasca County at-risk communities.

Because people and natural elements interact in the wildland-urban interface, expanding development and recreational use is creating an increasingly complex landscape in Itasca County. The term wildland-urban interface is defined as any area where wildland fuels (trees, brush and other vegetative materials) threaten to ignite combustible homes and structures. With increasing wildland-urban interface development, comes problems specific to these natural areas, such as the threat of catastrophic wildfire.

The Itasca County CWPP is a community based plan and was developed by citizens, local communities, businesses, and land management agencies working together to achieve a common goal. This guide is not a legal document, although recommendations contained here carefully conform to both the spirit and the letter of the Healthy Forest Restoration Act. The goal of the Healthy Forest Restoration Act (HFRA) is to reduce wildland fire risk to firefighters, communities, and important landscapes while keeping with the overall goal of improved forest health on a landscape scale. Implementation of all fuels reduction and hazard mitigation projects developed through this plan will follow County, State, and Federal land management plans, policies and procedures.

Completion of a CWPP helps communities tap into national funding resources such as The National Fire Plan which annually provides millions of dollars to help states and communities with community fire planning, hazardous fuel reduction, and wildfire prevention across the nation. It also earns communities priority for funding of hazardous fuels reduction projects carried out under the auspices of the Healthy Forest Restoration act of 2003. A County or community at risk must prepare a CWPP if it is to take full advantage of these new opportunities within the Healthy Forest Restoration Act.

The Itasca County CWPP defines the steps and recommendations developed by a core planning committee, and the final recommendations as edited, reviewed and prioritized by the local community. This plan is a working document and will be implemented by the twenty local Wildland/Urban Interface communities which it serves. The Implementation Team will actively seek community input to help develop localized hazard reduction and mitigation projects. Community members wishing to comment and/or give suggestions to the implementation of the plan should contact the Itasca County Board of Commissioners through their Administrative Services Department at 123 NE 4th Street, Grand Rapids, MN 55744 or by phone at 327-2847.

It is recommended that the Itasca County CWPP Implementation Team be composed of representative(s) from Itasca County, MN Department of Natural Resources, Itasca County Fire Chiefs Association, tribal and local government, local fire departments and the U.S. Forest Service. Use of a resource advisory committee is also recommended.

2. The specific requirements for a Community Wildfire Protection Plan (as listed in the Healthy Forest Restoration Act) include the following objectives:

- **It must be developed collaboratively:** Local and State government representatives must collaboratively develop the plan, and must consult with federal agencies and other interested parties.
- **It must set priorities to reduce fuels:** The plan must identify and prioritize areas for treatments that will reduce hazardous fuels. It must also recommend treatment types and methods that will protect one or more at risk communities and essential infrastructure.
- **It must recommend treatment measures to reduce ignitability:** The Plan must recommend measures that homeowners and communities can take to reduce the ignitability of structures throughout the area addressed by the plan.

The Itasca County CWPP also addresses:

- issues and elements involved in developing the plan,
- elements discussed in assessing community risks and priorities,
- development of fuels reduction and mitigation plans to address community risks.

3. Development of the Community Wildfire Protection Plan is an 8 step process:

A. Convene Decision makers

The community forms a core team made up of representatives from local citizens, appropriate local governments, local fire authority, state agency responsible for forest management and USFS.

B. Involve Federal Agencies

Identify and engage local representatives of the USFS. Leech Lake Indian Reservation was invited to be a part of the county planning efforts. The community involved other land management agencies as appropriate.

C. Engage Interested Parties

Partners contact and encourage active involvement from a broad range of local interested organizations and stakeholders.

D. Establish a Community Base Map

Partners work together to establish a community base map that defines the community’s WUI and displays inhabited areas at risk, forested areas containing critical infrastructure, and areas at risk for large-scale fire disturbance.

E. Develop a Community Risk Assessment

Community partners work together to develop a community risk assessment that considers fuel hazards; risk of wildfire occurrence; homes, businesses, and essential infrastructure at risk; other community values at risk; and local preparedness capability. Rate the risk for each factor and incorporate the results into the CWPP as appropriate.

F. Establish Community Priorities and Recommendations

Community partners use base maps and community risk assessments to facilitate collaborative community discussions leading to the identification of local priorities for fuel treatment, reduction of structural ignitability, and other issues of interest, such as improving fire response capability.

Clearly indicate whether priority projects are directly related to protection of communities and essential infrastructure or to reducing wildfire risks to other community values.

G. Develop an Action Plan and Assessment Strategy

Community partners develop a detailed implementation strategy to accompany the CWPP and a monitoring plan that will ensure its long-term success.

H. Finalize Community Wildfire Protection Plan

Community partners finalize the CWPP and communicate the results to community and key partners.

4. List of Participants

Fire Departments

Balsam	Calumet	Goodland	Nashwauk
Bearville	Cohasset	Grand Rapids	Northhome
Bigfork	Coleraine	Hill City	Squaw Lake
Bovey	Deer River	Keewatin	Taconite
Blackduck	French	Marble	Warba/Feeley/Sago

Itasca County Commissioners	Itasca County Land Department
Itasca County Emergency Management	Itasca County Planning and Zoning
Itasca County Sheriffs Department	USDEM – Homeland Security
Minnesota Department of Natural Resources	USDA Forest Service – CNF
MNICS	MN Extension Service
MN DNR Firewise Program	County Fire Chiefs Association
Individual Community Members	Small Business Representatives
CWPP Citizen Task Force	CWPP resource advisory committee

5. Wildland/Urban Interface Planning Areas.

Using the background information gathered, the citizen task force proposed twenty different planning (Wildland/Urban Interface) areas to present to Itasca County communities for planning input and prioritization of needs. Community meetings were held to build upon and prioritize county-wide needs. These twenty areas were defined by Itasca County communities with support from local land management agencies.

This county-wide plan addresses issues such as fire response, community preparedness, structure and infrastructure protection and mitigation measures for potential wildland fire fuel hazards. In development of the Wildfire Protection Plan citizens discussed and refined priorities for protecting life, property, and critical infrastructure within their communities.

Development and completion of this plan has resulted in an invaluable product. Itasca County communities worked together discussing and defining issues with community leaders, community members and local land management agencies. These discussions have lead to the completion of this document which lists the following common goals and priority fire management recommendations for Itasca County communities and their surrounding natural environment. This plan is a work in progress and will be amended by the Implementation Team, with continuing input from the public as individual projects are proposed and implemented.

6. Recommendations

- A. Prioritize fuel hazard reduction treatments in fire regime condition classes 2 and 3 after completing detailed risk assessments for structural ignitability, infrastructure protection and the reduction of wildland fire fuel hazards.
- B. Increase educational efforts to inform citizens of wildfire hazards and available mitigation measures.
- C. Support local fire departments with recruitment, training and increase fire protection capabilities.
- D. Support public forest management policies and management activities that promote fire protection access, active timber harvest and other appropriate treatments to reduce wildland fire fuel hazards.

II. Fire Policies and Programs:

The State of Minnesota Department of Natural Resources is governed by state statutes that provide wildfire protection direction; followed by Minnesota Department of Natural Resources internal policies.

The wildfire policy and program for the Chippewa National Forest is outlined annually within its Fire Management Plan which is tiered to policies and guidelines set forth in the revised (2004) Chippewa National Forest Land and Resource Management Plan. The Fire Management Plan also carries forth policies and direction as defined in Forest Service handbooks and manuals.

Various local, state and federal programs and policies relate to wildfire protection and community wildfire planning. The Healthy Forest Restoration Act of 2003 calls for the development of Community Wildfire Protection Plans. This section describes these requirements, as well as related county, state and federal programs.

1. Healthy Forest Initiative (2002)

The Federal Healthy Forest Initiative of August 2002 was the impetus for:

- Streamlining the administrative review process for NEPA.
- Creating new regulations under the Endangered Species Act for National Fire Plan projects to streamline consultation with federal regulatory agencies.
- It set the stage for discussion between the administration and Congress resulting in new legislation addressing forest health.
- Establishing new procedures provided for under the National Environmental Policy Act to allow priority fuel treatment (thinning and prescribed fire) and forest restoration (reseeding and planting) projects, identified through collaboration with state, local and tribal governments and interested persons, to proceed quickly without the need for lengthy environmental documentation.
- Improving the agencies' administrative appeal rules to expedite appeals of forest health projects and encourage early and more meaningful public participation.
- Providing guidance to Federal agencies to make consultations under the Endangered Species Act timelier while emphasizing long-term benefits to threatened and endangered species, and proposing new regulations under the Endangered Species Act (Section 7) to expedite consultation for forest health projects that are unlikely to harm threatened or endangered species or their habitat.
- Providing guidance from the Council on Environmental Quality to improve environmental assessments for priority forest health projects by preparing assessments for fifteen pilot fuels treatment projects.

The Healthy Forest Restoration Act of 2003 contains a variety of provisions to expedite hazardous-fuel reduction and forest-restoration projects on specific types of Federal land that are at risk of wildland fire or insect and disease epidemics. The act helps rural communities, States, Tribes, and landowners restore healthy forest and rangeland conditions on State, Tribal, and private lands.

2. Stewardship Contracting (Expanded in 2003)

On the legislative front, in 2003, Congress enacted legislation expanding 1999 stewardship contracting authority, which allows Federal agencies to enter into long-term (up to 10 years) contracts with small businesses, communities and nonprofit organizations to reduce wildfire risk and improve forest health. Stewardship contracting is a promising and potentially transformative package of new contracting authorities that help to re-define the way work is done on public lands. Stewardship contracts emphasize the vital role of local residents, though strong partnerships with federal land managers in formulating the goals of forest stewardship while accomplishing the necessary work. Stewardship contracts focus on desirable end results on the ground that improve forest health and provide benefits to communities. Part of the President's Healthy Forests Initiative, stewardship contracting will improve the health of the land, ensure thriving landscapes and contribute to the development of dynamic economies by assisting land managers to enhance and restore forest and rangeland health while strengthening the role of communities and others who contribute to such efforts.

The expanded 2003 stewardship contracting, which Congress approved will help agencies achieve key land-management goals to:

- improve, maintain, and restore forest and rangeland health;
- restore and maintain water quality;
- improve fish and wildlife habitat;
- re-establish native plant species and increase their resilience to insects, disease and other natural disturbances; and
- Reduce hazardous fuels that pose risks to communities and ecosystem values through an open, collaborative process.

Stewardship contracts allow private companies, communities and others to retain forest and rangeland products in exchange for the service of thinning trees and brush and removing dead wood. Long-term contracts (up to 10 years) foster a public/private partnership to restore forest and rangeland health by giving those who undertake the contract the ability to invest in equipment and infrastructure. This equipment and infrastructure are needed to productively use material generated from forest thinning, such as brush and other woody biomass, to make wood products or to produce biomass energy, at savings to taxpayers

3. Hazardous Fuels Reduction Act (2003)

Key provisions of the Act:

- Provide tools and additional authorities to treat acres quickly in order to expedite restoration goals. Strengthen public participation and provided incentives for local communities to develop community protection plans.
- Limit environmental analyses complexity for hazard reduction projects
- Provide a more effective appeal process

- Instructs the Courts when considering legal challenges to halt projects, to balance the short-term affects of implementing the projects against the harm from undue delay and long-term benefits of a restored forest.
- Encourages biomass removal from public and private lands.
- Provides technical, educational, and financial assistance to improve water quality and address watershed issues on non-Federal lands.
- Authorizes large-scale silvicultural research.
- Authorizes acquisition of Healthy Forest Reserves on private land to promote recovery of threatened and endangered species, and improve biodiversity and carbon sequestration.
- Directs the establishment of monitoring and early warning systems for insect or disease outbreaks.

4. National Fire Plan (2001)

The National Fire Plan implementation began in FY 2001. The plan is multi-faceted strategy designed to manage the impacts of wildland fire to communities and ecosystems, and to reduce wildfire risk. It encompasses the Departments of Agriculture (Forest Service) and Interior (National Park Service, Fish and Wildlife Service, and the Bureau of Land Management). Accountability and collaboration at the local level are stressed. The strategy focuses on five areas:

- Improving fire preparedness
- Restoring and rehabilitating burned areas
- Reducing hazardous fuels
- Assisting communities
- Research needs

5. 10-Year Comprehensive Strategy (2001)

This is a coordinated ten-year strategy to comprehensively manage wildfire, hazardous fuels, and ecosystem restoration. The implementation plan was developed in 2002. It was developed in collaboration with governors and in consultation with a broad range of stakeholders. The scope includes federal and adjacent state, tribal, and private lands. The primary goals are:

- Improve prevention and suppression
- Reduce hazardous fuels
- Restore fire-adapted ecosystems
- Promote community assistance
- Collaboration, priority setting, and accountability.

6. Federal Emergency Management Agency Disaster Mitigation Act (2000)

Federal Emergency Management Agency (FEMA) lists requirements under Title 44 CFR Part 201 of the Disaster Mitigation Act of 2000. This legislation specifies criteria for state and local hazard mitigation planning which require local and Indian tribal governments applying for Pre-Disaster Mitigation funds to have an approved local mitigation plan. These may include county-wide or multi-jurisdictional plans as long as all jurisdictions adopt the plan. Activities eligible for funding include management costs, information dissemination, and planning, technical assistance and mitigation projects.

FEMA Pre-Disaster Hazard Mitigation Program

- Establishes a National Pre-Disaster Mitigation Fund for a 3-year period.
- Governors may recommend 5 or more local communities annually for assistance.
- Funds are provided for technical assistance to communities.
- “Small impoverished communities” may receive increased federal shares.
- Federal Emergency Management Agency (FEMA) to establish an interagency task force to coordinate Federal pre-disaster mitigation.

FEMA Mitigation Planning

- Requires local and Tribal governments to develop and submit mitigation plans.
- Allows 7% of Hazard Mitigation Grant Program (HMGP) funds for planning purposes.
- Increases HMGP from 15% to 20% for states meeting enhanced planning criteria.

III. Itasca County Profile: (taken from county land use plan)

Itasca County is an area of abundant lakes, rivers, forests and farms. The beauty of the County attracts permanent residents as well as many part-time residents and visitors. Itasca County’s economy has historically been driven by timber harvesting, mining, and tourism.

Itasca County is currently home to 42,446 permanent residents. Population projections for the next twenty years vary from the population remaining flat to an increase of up to 9,000 new residents. The high projection would result in 3,642 new households, an average of 173 per year. The average age in Itasca County is rising. An increasing percentage of the population is over 55 years of age.

The economy of Itasca County continues to include timber harvesting, mining and tourism. The future growth of the economy, however, will also include technology-based businesses, home and cottage businesses, and manufacturing.

Because of the beautiful, productive amenities in Itasca County, the future of land use will be defined by competition over differing uses of land and resources. The Comprehensive Land Use Plan sets forth a set of goals developed by citizens of Itasca County to guide the balancing of competing interests.

A full set of background studies was conducted as part of the planning process and is presented in a separate document. Further information can be obtained from the Itasca County Office of Environmental Services at 327-2857.

The following section provides a more in-depth description of the environment and analysis of fire management from the Biophysical Forestland System.

IV. Fire Management Overview:

1. Introduction

The Biophysical Forestland System employed by Itasca County Land Department characterizes forestland in a manner that can be used as a platform for fire management programs and activities. The system utilizes objective verifiable data that includes characterization of dead woody materials on the ground and vertical snags that can be projected throughout a representative portion of Itasca County forestland. A systematic characterization of plant communities that includes identification of all plants and structure of natural plant communities can define fuel ladders and composition of those ladders. Earthen materials are characterized in detail and composition of sands, silts and clays are routinely reported. Nutrient budgets for representative biophysical units are characterized in detail to a depth of 5 feet in the earthen material or root zone. Over 350 10-point plots are identified by GPS location and provide the foundation for ongoing monitoring of forest conditions.

Biophysical regions for Itasca County are based on unique combinations of geology and climate. Geologic properties include glacial lobe, glacial landforms and inherent features of glacial deposits. Sources of information for geology include published information and field observations. Climatic properties include precipitation and temperature and are summarized by annual and seasonal patterns and geographic distribution of those patterns. All information for climate is from records provided by certified weather stations throughout Itasca County and adjacent areas.

Biophysical regions are part of a hierarchical land classification system having multiple levels and are designed to meet requirements of strategic, tactical and project planning. Biophysical regions are designed primarily for strategic planning and for organization of biophysical information of higher resolution.

Biophysical region information reveals that Itasca County has great potential for producing a range of high quality forest products with high sustainable yield potential. That region information also depicts a multitude of opportunities for all season recreation in a forest-lake landscape. In contrast, farming is seriously limited by large distance to markets and an unfavorable climate even though nutrient-rich soils are common in a major portion of the County.

This multi-level characterization of forestland management by Itasca County Land Department enables forest managers:

- To comprehensively describe the forest environment in which we work, live and play.
- To predict inherent fire potential, impacts on plant communities, impacts on the quality of root zones, identification of high risk portions of the forest and behavior of fires once they start.
- To monitor forest conditions over time.
- To effectively prescribe fire for use in support of routine forestland management activities. Those activities include but are not limited to preparing sites for planting trees, reducing fuel loading for preventing occurrence of uncontrolled fires, improving wildlife habitat and controlling selected forest insects and diseases.

2. Description of the Environment

The following summary of biophysical regions for Itasca County support the Community Wildfire Protection Plan and additional information for each region is available from the Land Department.

Bigfork-Cook Plain (BCP) biophysical region contains 377,972 acres and is located in the northern part of Itasca County. Bigfork and Effie are representative local communities. This biophysical region is sparsely populated and forestry is a major source of employment for private and public organizations. There is a small airport located near Bigfork. State highways 1, 38 and 65 provide all season access to a major portion of this biophysical region. Recreation opportunities are associated with a limited number of small lakes and streams, rustic campgrounds, dispersed camping, extensive snowmobile trails, OHV trails and hunting upland game and big game. Nutrient-rich land supports sustainable high yielding forest crops of high quality wood material. Local glacial deposits of sandy and gravelly materials occupy limited acreage in this region and are very important as supply of favorable earthen materials for construction projects. A glacial lake plain dominated by thick deposits of silt and clay result in large amounts of runoff, local spring flooding and numerous moist or wet shallow depressions. Potential for adequate and reliable supply of potable water is very low in the clay (Potable water has been located in pervious materials beneath the clay.) and the potential is high in the local pervious earthen materials. Construction of facilities and roads for supporting local communities will be costly and be designed to overcome the large amount of silt and clay.

Laurentian Upland North (LUN) biophysical region contains 241,112 acres and is located in northeastern Itasca County. This region has concentrations of citizens at selected lakes and in communities north of the Iron Range. This region is sparsely populated. All major community services are available in nearby Iron Range cities. State highway 65 and local roads provide reasonable access to this biophysical region. Recreation opportunities are associated primarily with dispersed facilities in forest environment and a few facilities at local small lakes. OHV use, snowmobiling, hunting upland game and big game are common in this region. There are a few streams that offer opportunities for fishing and trapping. The land in this region is dominated by glacial earthen materials having low to high levels of nutrients and can produce moderate to high sustainable yields of high quality forest products. Glacial deposits rich in sand and gravel are common and are mixed with deposits with high levels of silt and clay. Potential adequate and reliable potable water is readily available in the extensive deposits of pervious earthen materials. That combination of deposits provides favorable supply of earthen materials for construction of roads and facilities for supporting local population. Flooding is very limited in this biophysical region as result of the extensive deposits of pervious glacial earthen materials. Construction costs for roads and support facilities will be in proportion to the extensive supply of favorable earthen materials.

Laurentian Upland South (LUS) biophysical region contains 158,939 acres and is located south of the Iron Range and population centers are typical Iron Range cities and towns. There is considerable rural population whose citizens utilize the services of those cities and towns. State highways 65 and 169 combined with numerous paved county roads and gravel forest roads provide citizens with ample access throughout this region. There is a full service airport located near Grand Rapids. Recreation opportunities are numerous and include Iron World, Hockey Hall of Fame, campgrounds, dispersed camping, snowmobile trails, OHV trails, ski trails and hunting upland game and large game. There are few lakes and streams in this biophysical region. Low to moderate levels of nutrients in generally sandy and loamy glacial earthen materials can support a sustainable supply of quality forest products. Potential adequate and reliable sources of potable water are available in the extensive areas of pervious earthen materials. Pervious earthen materials significantly reduce potential flooding in this region. Those materials are very favorable sources of material for construction of community facilities and roads that is reflected in project costs.

Wawina-Hibbing Plain (WHP) biophysical region contains 156,414 acres and is located in east central and southeast portions of Itasca County. The region tends to be sparsely populated with citizens living in small communities and along all season paved and graveled roads. Within Itasca County, citizens in this region travel to Iron Range cities for full service facilities. There is a full service airport at Hibbing. State highways 2 and 65 combined with other paved and gravel roads provide reasonable access throughout this region. Recreation opportunities tend to focus on dispersed activities in forest and include hunting upland game and big game, OHV use, snowmobiling and rustic hiking. There are very few lakes and some streams in this region. Low to high levels of nutrients in the prevailing glacial earthen materials that include sand, loam and clay can provide sustainable moderate to high yields of high quality forest products. Potable water is generally available in most of this region. This biophysical region can have extensive flooding caused by low slope gradient, low local relief and local shallow water tables. There are extensive areas of earthen materials with favorable properties for construction of community facilities and roads. Locally, those materials can be somewhat limited by shallow water table. Construction project costs will reflect those conditions.

Grand Rapids Upland (GRU) biophysical region occupies 432,066 acres and is located in central Itasca County. This region has the highest population of all biophysical regions and Grand Rapids is the largest city and provides full service facilities to citizens. There is considerable permanent and seasonal population around the numerous high quality lakes common in this biophysical region. This region is a GEM for recreation opportunities in a forest and lake environment with numerous low rolling hills and contrasting plant communities. Resorts, campgrounds, dispersed camping, hiking trails, OHV trails, snowmobile trails, and other recreation facilities attract numerous visitors to this region. Fishing and hunting are very popular recreation in this region. Generally, nutrient levels in the glacial earthen materials is considered to be moderate to high and coupled with favorable climate results in potential for producing sustainable medium to high yields of quality forest products. Potential sustainable potable water sources are common in this region. Those earthen materials are typically loamy near the surface and

becoming sandier with increasing depth. Flooding is not generally a major event in this region because of the pervious substratum and sloping terrain. Those earthen materials have generally favorable properties for construction of community facilities and road and are abundant. That combination is reflected in costs of construction projects.

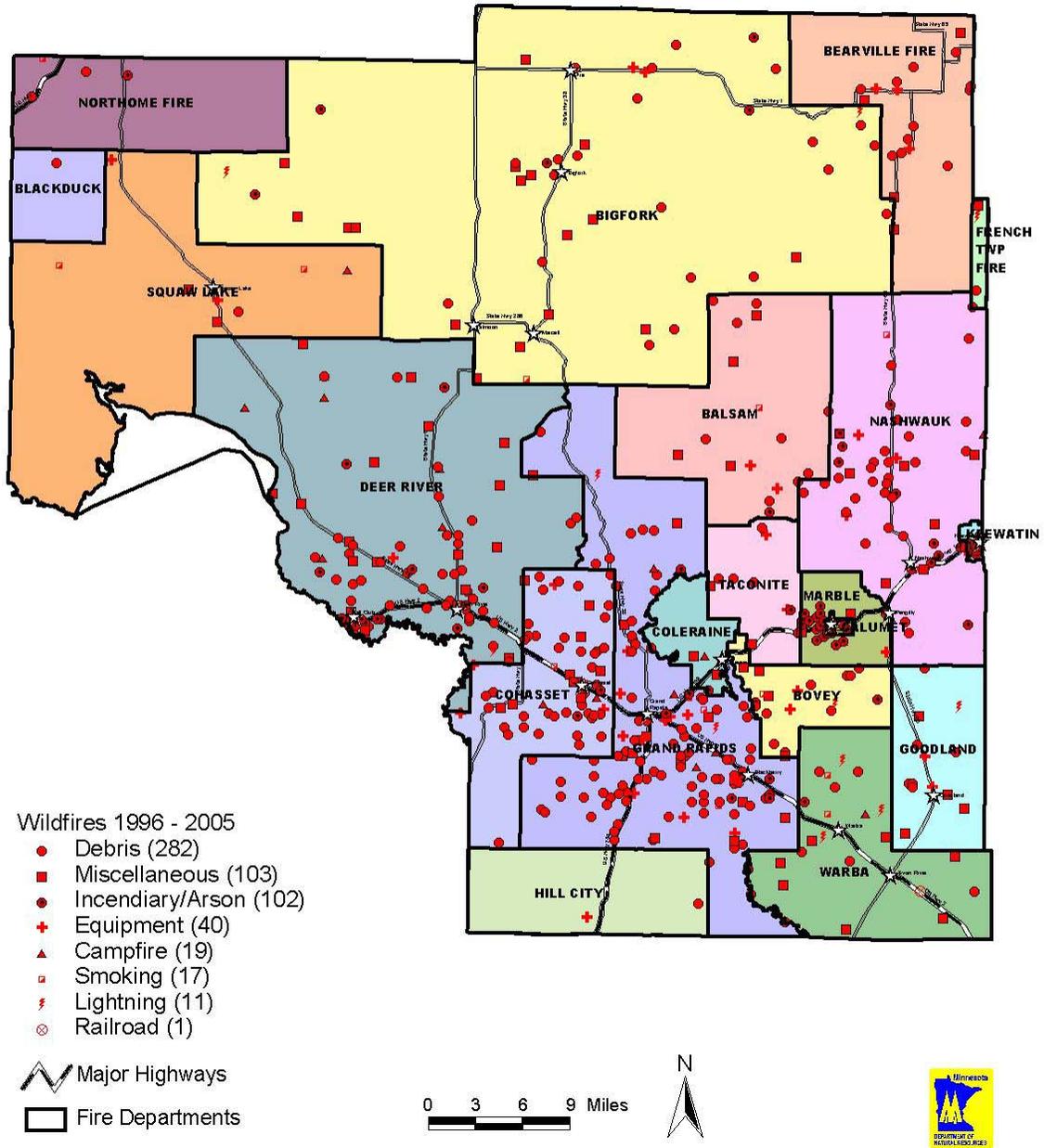
Cut Foot Sioux Upland (CFSU) biophysical region occupies 461,885 acres in northwest Itasca County. This region is sparsely populated and citizens seek full service community facilities located in Deer River. State highway 46 combined with paved and graveled county roads provide citizens with limited all season access within the region. Recreation opportunities are associated with a forest environment with very limited lakes and streams. Dispersed camping, hunting upland game and big game, OHV use, snowmobiling and rustic hiking are major recreation activities in this region. A significant portion of this biophysical region has thick sandy glacial earthen materials with low fertility. Smaller inclusions of earthen materials with moderate to high levels of nutrients occur in the northern portion of the region. Potential sustained yields of forest products are low to medium and quality forest products can be grown in this region. Sustainable sources of potable water are common in this region. Flooding is associated with areas having low gradient slopes and low local relief. Extensive deposits of favorable earthen materials in this region support cost-effective construction projects of community facilities and roads.

3. Fire History

Historically, extensive wildfires and man-caused fires in Itasca County have been infrequent and rather small (approximately 60 per year). The largest fires occurred during extended periods of drought and selected ones occurred in heavy accumulation of slash left behind after harvest of wood products. Major causes of wildfires are debris burning, arson, equipment, camp fires, lightning, and miscellaneous causes i.e. children, smoking, railroad operations, and out-of-control prescribed project fires. Except for lightning, those other causes can be reduced significantly by intensifying accountability, fire prevention education and training.

Recent History of Fire Occurrence for Itasca County

Itasca County Wildfires 1996 To 2005



4. Fire Behavior

Currently, the dominant forest types in County Forests are hardwoods comprised of trembling aspen, paper birch, maples, basswood, oaks and ashes. Those types consistently have a history of low frequency of fire and during normal weather function as effective fuel breaks that reduces the spread of fires. There is a significant acreage of pine forests in Itasca County. Those forests younger than 30 years have a high hazard for forest fires and risk increases with closeness to trails and roads and droughty and dry sandy root zones. Balsam fir stands have the highest hazard for potential fire that is associated with its inherent physical and chemical makeup. Additional information for each forest type and BLEU (Itasca County Lands) will be discussed in a following section.

Fire creates changes in the biological, chemical and physical properties of the natural earthen materials that comprise root zones in County Forests. Significant factors that influence fire intensity and behavior include pre-fire and current fire weather conditions, type of fuel, amount of fuel, placement of fuel, time of day, terrain and inherent water holding capacity of earthen materials. Fast moving fires occurring during normal fuel moisture conditions will leave a substantial amount of charred or non charred heavy fuels and a black ground surface. Such fires create favorable conditions for rapid re-growth of native plants. Erosion by wind and water will be minimal as result of the remaining duff layers and the woody debris on the forest floor. In sharp contrast, a slow moving fire burning in heavy fuels during a drought will consume nearly 100% of all fuels and leave behind a very thin cover of white ash on the underlying root zones. This is an unfavorable condition for re-growth of native plants and “green up” will be very slow and re-growth of selected woody plants can be delayed for decades. Tons of ash and dry root zone materials will be lost by water and wind erosion. That ash and those materials frequently are transported to lakes and streams. Surface runoff can be increased to problem levels in forestland dominated by slowing permeable earthen materials and or in steeping sloping terrain. Walking through an area of white ash on a windy day requires protection for one’s eyes and from breathing in particles of ash suspended in the air.

Fires burning within prescription can be an effective management tool for reducing undesirable concentrations of fuels, create effective breaks in fuel types, destroying conditions favorable for selected diseases and insects, improve supply and availability of food for wildlife, preparing site for natural regeneration of forest, preparing site for planting or seeding a new forest and increase variability of plant communities in the forest and along scenic pathways, trails and roads. Burning of plant parts changes the form of selected nutrients. Selected nutrients can be volatilized into air and move with air currents and an example is nitrogen. Other nutrients are changed from being combined with organic matter to mineral form and become readily available for plant uptake. However, burning of vegetative materials does not “fertilize” the land, it merely changes the form of the nutrient or alters the medium with which it is combined. There is a net loss of nutrients from a site as a result of burning of vegetation and losses are in the form of air borne gases and particles and organic particles loss to water and wind erosion

5. Fire Safety and Prevention

Prescriptive use of fire requires highly qualified individuals to do planning, designing and carrying out the actual burning of an area. In populated areas, it is highly advisable for citizens to form a task force whose purpose is to review and provide input in all prescriptive fire plans prepared by an organization responsible for conducting prescriptive fires. Such a task force combined with members from each organization could form a very effective team to assure that all planned fires would have a high probability of burning within prescription. Such a team could also be an effective element in developing fire prevention programs and strategies for dealing with wildfires. That team could also provide grass root support for obtaining equipment necessary for suppressing wildfires or out-of-prescription fires. National history has numerous examples of fires burning out-of-prescription that destroyed millions of dollars of private property, destroyed millions of board feet of prime timber, killed hundreds of wildlife and created problematic volumes of surface runoff and erosion of debris into lakes and streams.

Home owners can take precautionary action and measures to protect there property from fires in forestland by having a 30-foot defensible space around all dwellings and buildings to help reduce structural ignitability; keep conifers, especially spruce and balsam fir trees, more than one hundred feet from structures, remove highly flammable shrubs from beneath mature pine trees, pile branches and leaves in secure areas away from structures, take full advantage of education and training provided by a variety of organizations, know telephone number of local fire departments and make sure that a dependable source of water is available.

A. Fire Prevention and Education (Community Outreach) (Parts taken from the Minnesota DNR and USFS Programs)

Ninety percent of Minnesota's wildfires are caused by humans. Twenty percent of these are suspected arson, with the remainder started through unintentional means, such as unattended campfires, pile burning or sparks from trains. Efforts to decrease the numbers of human caused wildfires have had a noticeable effect on the number of wildfires in the state. As an example, a thirty five percent decrease in wildfires has been recorded since the Department of Natural Resources instituted spring burning restrictions.

Historically, Minnesota has recorded fewer fires and smaller acreages burned than in the early part of the century due to prevention strategies and quicker response time. Today, urban interface issues; insect and disease; and the blowdown in the northeast portion of the state continue to be some of the most pressing fire hazard concerns local fire management officers are dealing with. Fire management personnel have been working to help landowners mitigate this danger.

To accomplish prevention goals, a combination of strategies will be used. These strategies include education, engineering, and enforcement. A brief description of each strategy is:

Education: Activities aimed at changing people's behavior by awareness and knowledge.

Engineering: Activities designed to shield an ignition source (ex. spark arrestor) or remove the fuel which may ignite from a spark or fire brand (ex. defensible space around a home).

Enforcement: Activities used to gain compliance with fire regulations and ordinances.

B. Prevention Goals

- a. Reduce human-caused wildfires throughout Itasca County.
- b. Provide a continuing fire prevention and education program.
- c. Work with communities to coordinate Firewise activities within the County.

C. Key Prevention Actions:

- d. Identify and update successful education programs to promote the fire prevention message.
- e. Encourage fire prevention messages at local community celebrations and events. Community member participation at local events is a good way to spread the fire prevention message.
- f. Keep fire prevention messages in schools focusing on grades K-2 for Smokey Bear Programs, grades 3-6 for Good Fire Bad Fire messages and Firewise messages in secondary school. Coordinate school visits so that all the schools are visited by a representative on an annual basis.
- g. Promote Firewise at the local level. Work with Itasca County fire departments and landowners concerning Firewise, and what can be done to improve defensible space. Share Firewise information with homeowners.
- h. Develop and use age appropriate fire prevention themes that address fire issues in Itasca County.
- i. Provide the public alternatives to debris burning such as recycling and composting materials.
- j. Educate the public on burning permit requirements, safe burning techniques, weather conditions, and fire use.
- k. Foster public, interagency and interdisciplinary cooperation when identifying and developing hazardous fuels mitigation measures.
- l. Work with communities on pilot projects such as brush disposal sites or starting a burn barrel amnesty program.
- m. Reduce the number of wildfires caused by burning barrels and unattended campfires.

D. Activities for Community Fire Protection (Expanded from Firewise Information):

- **Firewise Assessments** – Predetermined evaluation factors designed to assess potential hazards and risk to homeowners' structures.

- **Improve ingress/egress** – improve road, approach and turn around capabilities for responding emergency vehicles such as structural fire engines and ambulances to provide better protection capabilities and evacuation procedures the community and the public.
- **Dry Hydrants** – An arrangement of pipe permanently connected to a water source other than a piped, pressurized water supply system that provides a ready means of water supply for firefighting purposes and that utilizes the suction capability of fire department engines.
- **Homeowner Firewise mitigation measures** – actions taken by home owners that moderate the severity of a fire hazard or risk and reduce structural ignitability.
- **Sprinkler systems** – water sprinkling systems set up by home owners or fire protection agencies to wet down structures or slow down the fire behavior of an approaching fire.
- **Prescribed burning** – Controlled application of fire to wildland fuels in either their natural or modified state, under specified environmental conditions, which allows the fire to be confined to a predetermined area, and to produce the fire behavior and fire characteristics required to attain preplanned fire treatment and resource management objectives.
- **Firewise communities** – Communities completing the designated projects and receiving designation under the Firewise community program
- **Chipper Days** – identified neighborhoods needing brush fire clearance. A day or two will would be arranged for green waste to be collected chipped and recycled after homeowners have cleared their brush.
- **Harvesting** – selective cut, partial cut, and/or clearcut,
- **Thinning** – the removal or pruning of strategic trees within pine stands to reduce the density of ladder fuels, provide fuel breaks, or reduce the potential of crown fires.
- **Crushing** – a mechanical means of grinding and chopping vegetative materials to reduce fuel loading or build-up.
- **Biomass removal** – bundling, piling and burning.
- **Pile and Burn:** Flammable fuels are piled and later burned when conditions are appropriate. This treatment type is appropriate in stands where there is not enough merchantable fuel to harvest, too much dead and down fuel to broadcast burn, and near private property where structures are present.

- **Under burn:** A low fire intensity fire that burns beneath the canopy of a live timber stand. The fire removes all material that can be considered a fuel ladder that could potentially spread fire from the ground fuels into the crown of standing live timber. The under story materials that would be removed include small down, dead, woody material. This prevents a subsequent wildfire from spreading into the crowns and causing over story mortality. Under burns also kill shrubs and most young trees that compete with the over story canopy vegetation. Some live trees are burned during under story burns, but the objective is to maintain the forest cover. Following the burn, the stand would consist of a standing forest that is open underneath.
- **Patch Burn:** Patches of combustible materials are ignited within a larger treatment area. Only individual patches are burned within the larger area. Fire may spread outside of the patches to the surrounding area, but the surrounding area is not directly ignited. Following the burn, the landscape would consist of small burned areas amongst live vegetation patches.
- **Wildland Fire Use** is the management of naturally ignited wildland fires to accomplish specific pre-stated resource management objectives in predefined geographic areas outlined in Fire Management Plans.

6. Fire Management by Region

The following provides one example of a more detailed application of biophysical data and information for the Grand Rapids Upland Biophysical Region. Additional biophysical region information is available from the Land Department.

Forest types on county land in Grand Rapids Upland Biophysical Region are dominated by hardwoods with trembling aspen being the most common. Each type represents a unique combination of a tree species, diameter of stem and 4.5 feet above ground surface and number of trees per acre. Each forest type is based on a single featured tree species and is not sensitive to contrasting properties of forestland that potentially have significant influence on site quality. The following Table 1 shows the distribution of forest types in the region and general representative fire hazards for each type and biophysical landscape ecological unit (BLEU).

Table 1. Fire Hazard by BLEU and Forest Type in GRU Biophysical Region

Forest Type Age Class	Acres	BLEU	Fire Hazard	
			Normal Weather	Drought
<u>Trembling Aspen</u>	12666	3	low-medium	high-medium
All ages		1,2,6,10	low	medium-high
		8,11,12	very low	medium
		4, 9	very low	low-medium
		5, 7	very low	low

<u>Pines RP, WP, JP</u>	3740			
1 to 10 years	404	3 1, 2,6,10 8, 11, 12	medium medium-low low-medium	high-extreme high-extreme high
11 to 40	1760	3 1, 2,6,10 8, 11, 12	medium-high medium medium-low	extreme extreme high-extreme
41 plus	1576	3	medium	high
<u>Paper Birch</u>				
All ages	2770	3 1, 2,6,10 8, 11, 12 4, 9 5, 7	low-medium low low very low very low	high high-medium medium medium-low low-medium
<u>Spruces</u>	2679			
1 to 10	122	3 1, 2,6,10 8, 11, 12 4, 9 5, 7	medium medium-low low-medium low very low	extreme extreme high-extreme high high-medium
11 to 40	954	3 1, 2,6,10 8, 11, 12 4, 9 5, 7	medium medium-low low-medium low very low	extreme extreme high-extreme high-extreme high
40 plus	1603	3 1, 2,6,10 8, 11, 12 4, 9 5, 7	medium to low low-medium low low very low	extreme extreme-high high-extreme high high
<u>Oak & Northern Hardwoods</u>	2560			
1 to 10	26	3 1, 2,6,10 8, 11, 12 4, 9	low low very low-low very low	high-medium medium-high medium low-medium
11 to 40	92	3 1, 2,6,10 8, 11, 12 4, 9	low very low very low very low	medium medium-low low-medium low

40 plus	2442	3 1, 2, 6, 10 8, 11, 12 4, 9	low very low very low very low	medium medium-low low-medium low
<u>Balsam Fir</u>	267			
1 to 40	32	3 1, 2, 6, 10 8, 11, 12 4, 9 5, 7	high-medium high-medium medium-high medium medium-low	extreme-high extreme-high high-extreme high-medium medium-extreme
40 plus	235	3 1, 2, 6, 10 4, 9 5, 7	medium-high medium-high medium medium-low	high-extreme high-extreme high-extreme medium-high
<u>N. White Cedar</u>	913			
1 to 10	0			
11 to 60	40	3 1, 2, 6, 10 8, 11, 12 4, 9 5, 7	medium-high medium medium-low low-medium low	high-extreme high-extreme high medium-high low-high
40 plus	873	3 1, 2, 6, 10 8, 11, 12 4, 9 5, 7	medium medium low-medium low-medium low	high-extreme high-extreme high-extreme high-medium medium-high
<u>Grass, Herbaceous, Brush (Upland)</u>	207	1, 2, 3, 6, 10	medium-high	extreme
<u>Grass, Herbaceous, Brush (Lowlands, Marshes, Muskegs)</u>	3789	4, 5, 7, 9	low to medium	high-extreme
Other (water, development, lowlands, etc.)	<u>2658</u>			
TOTAL	32,249			

BLEU 3 is **Droughty**; BLEU's 1, 2, 6 & 10 are **Dry**
BLEU's 8, 11 & 12 are **Dry-Moist**
BLEU's 4 & 9 are **Moist**; BLEU's 5 & 7 are **Wet**.

In general, pine, spruce, northern white cedar and fir types that are less than thirty years old and growing in the droughty and dry BLEU's typically have the highest fire hazard. Those types with associated droughty and dry BLEU properties are especially prone to high hazard during multi-year droughts. Grasses in droughty and dry BLEU's also have a high fire hazard and are especially problematic during droughts of extended duration. A rating of LOW indicates low volume of cured fuels, MEDIUM indicates intermediate volume of cured fuels, HIGH indicates large volume of cured fuels and EXTREME indicates large volume of highly flammable cured fuels. A range between two ratings indicates a variation of conditions between two ratings.

Cured fuels with high and extreme ratings can result in distinctly different fires. An example is dry cured grass that will have substantially lower height of flames and significantly different burning behavior than cured light to heavy woody fuels.

Coarse dead wood for each BLEU was calculated based on stratified random ten-acre plots each having 10 1/50th acre fixed radius sample points. Each plot was located as nearly as possible at right angle to natural slope for purpose of maximizing the interception of natural variability of biophysical properties. Within Grand Rapids Upland Biophysical Region there were 50 plots and 500 1/50th acre sample points that is equivalent to a minimum of 1 plot and 10 sample points per section. A summary of those plots is shown in table 2.

Table 2. Coarse Dead Wood for Biophysical Landscape Ecological Unit (BLEU).

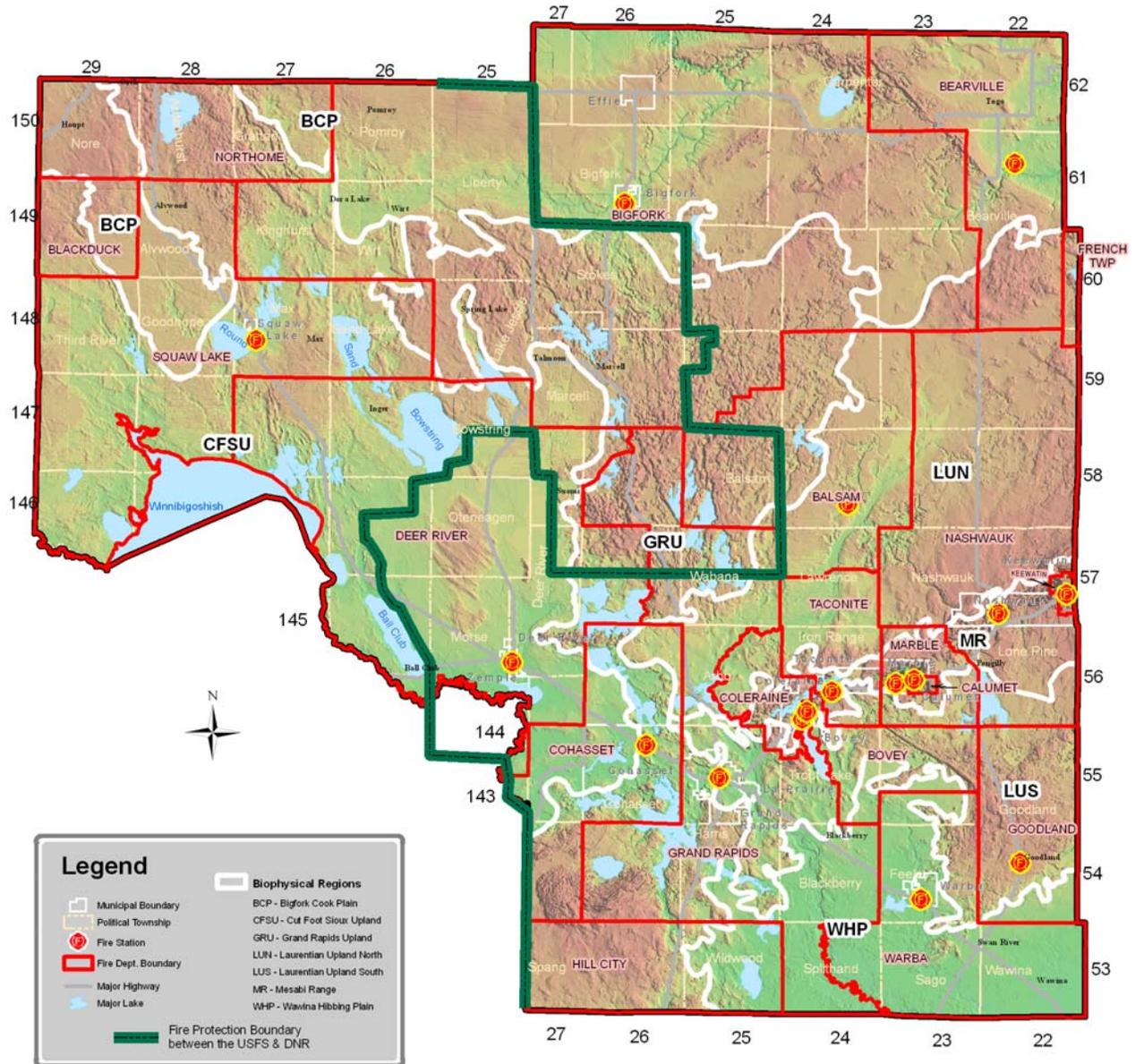
BLEU	Percent of Sample Points with Dead Wood	Dead Tree Stems Per Acre
1	44	50
2	35	50-250
3	100	200-500
4	25	100
5	50	50-550
6	33	50-350
7	73	50-550
8	41	50-150
9	36	50-150
10	36	50-150
11	28	50-150
12	45	50-550

Apparent in table 2 is the wide variation of dead woody stems throughout GRU. Revealed in the data was a trend that intensively managed forestland that included more effective utilization of quality wood products had fewer dead stems on the ground and related lower volume of cured fuels.

Additional information for fire-biophysical information is available in the Land Department

Itasca County Fire Department Coverage Areas within Biophysical Regions

Fire boundaries adopted July 1, 2004



Cartographic design work done by
Itasca County Land Department
Integrated Resource Information System



This information is a compilation of
data from different sources with
varying degrees of accuracy and requires
a qualified field survey to verify.

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V. Itasca County Wildland Urban Interface Community Boundaries:

Itasca County is divided into 20 wildland urban interface (WUI) communities which are based on local fire department jurisdictions. After several community based discussions, local priorities related to fire risk reduction were discussed. These activities include: fire protection and preparedness, hazardous fuels reduction, restoration of healthy forests, fire prevention and ecosystem based planning. Each WUI community will serve as a planning area boundary for implementation of the Wildfire Protection Plan. Projects can overlap between WUI communities and cross different (ownership) jurisdictions where agreements are in place. The map on page 26 shows Itasca Counties' twenty WUI areas and boundaries. Detailed descriptions of each (20) WUI community can be found starting on page 30.

1. Itasca County Communities and Neighborhoods

The Itasca County Community Wildfire Protection Plan (CWPP) offers a variety of benefits to communities at risk from wildland fire. Within Itasca County, twenty Wildland Urban Interface (WUI) areas have been identified. Each area has its own set of unique circumstances and need for mitigating measures.

One significant benefit for WUI communities is establishing localized definitions and boundaries for their specific Wildland Urban Interface areas. Without a written Community Wildfire Protection Plan, the Wildland Urban Interface is limited by statute to within ½ mile of a community's boundary or within 1 ½ miles when mitigating circumstances exist, such as sustained steep slopes or geographic features aiding in creating a fire break.

Fuels treatments can occur along evacuation routes regardless of their distance from the community. At least 50 percent of funds when appropriated under the Healthy Forest Restoration Act must be used within WUI areas as defined by a Community Wildfire Protection Plan or by the limited definition provided by the HFRA when no CWPP exists.

Another important reason for completion of a CWPP is that federal agencies must give specific consideration to fuel reduction project implementation plans identified in the Itasca County Community Wildfire Protection Plan. If a federal agency proposes fuel treatment methods in an area addressed by this community plan, but the community identifies a different treatment method, the federal agencies must also evaluate the community's recommendation as part of the federal agencies environmental assessment process.

2. Fire Districts

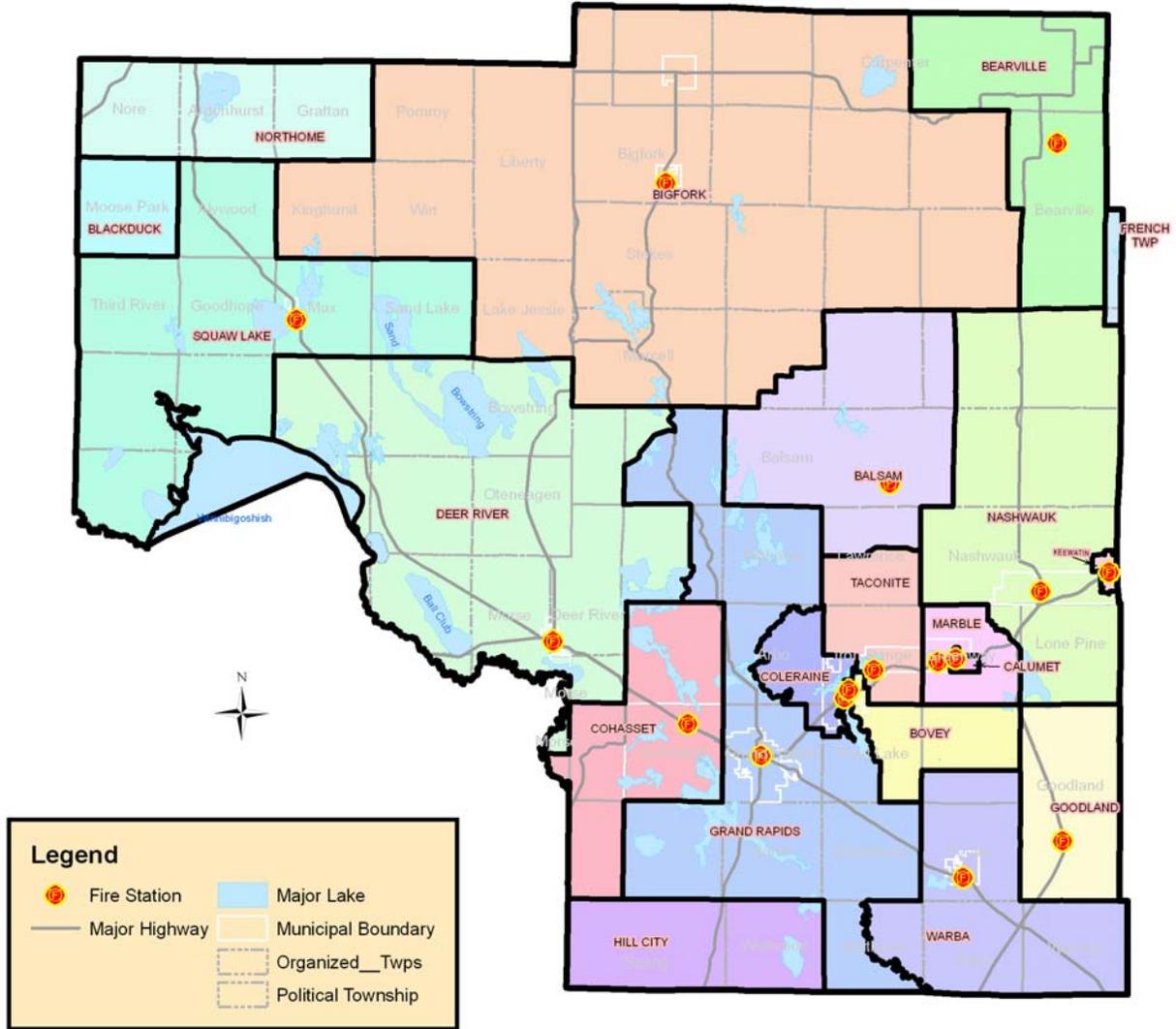
Because fire recognizes no boundaries, several land management agencies (BIA, DNR, and USFS) and local volunteer fire departments provide wildland fire protection coverage to meet the needs of the public. State and Federal wild land firefighters are not trained to provide structure protection, and can only apply minimal exterior structural protection efforts, according to both agencies policies.

Itasca County is covered by twenty volunteer fire departments, which provide structural fire protection services within their jurisdictional boundaries. Areas immediately outside specific fire department jurisdictions are covered by mutual aid agreements with the Itasca County Fire Chief's Association, or neighboring county mutual aid agreements in place, with departments who serve near the borders of adjoining counties. Structural fire suppression, which includes exterior and interior actions on burning structures, is the responsibility local fire departments. The map on page 29 shows jurisdictional protection boundaries for Itasca County fire departments.

The United States Forest Service is responsible for wildland fire suppression on lands within their protection boundaries. The Minnesota Department of Natural Resources is responsible for wildfire protection on all lands (private, county, state, and some Federal lands) as depicted on the map of fire protection boundaries or jurisdiction for wildland fires, and outside of municipalities. Cooperative fire suppression agreements exist between the **Chippewa National Forest and the MN Department of Natural Resources (Agreement No. 02-CA11090903-008), and between the Rural Fire Departments within the county.** Under this Operating Plan the Agencies agree to provide fire protection to the other agency's fire protection lands within the boundaries of the agreed on fire protection boundaries, as they would to their own protection jurisdiction. The map on page 26 shows wildland fire suppression boundaries for the United States Forest Service (Federal) and The Minnesota Department of Natural Resources (State). Each agency owns suppression resources; but they also share each others suppression resources and equipment through interagency agreements. Mutual aid and equipment rental agreements can exist with various private, contract and fire department wild land suppression resources.

Itasca County Fire Department Coverage Areas

Fire boundaries adopted July 1, 2004



December 27, 2006

Cartographic design work done by
Itasca County Land Department
Integrated Resource Information System



This information is a compilation of data from different sources with varying degrees of accuracy and requires a qualified field survey to verify.

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VI. Descriptions of Community Wildland/Urban Interface Areas:

A core group of interagency and community based personnel discussed and formulated twenty wildland urban interface (WUI) community descriptions for Itasca County. The twenty WUI areas are based on structural fire department jurisdictions and numerous factors. Each area has its own community description as described on the following pages.

DEFINITIONS

Name of WUI Community	Location: Legal description of the defined wildland urban interface area.
Priority: Rating (low, moderate or high) of community as it relates to safety and risk factors, evacuations, population density and economics as defined by risk.	County Funding: \$ Dollars provided by the County for structural fire protection.
Access:	Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.
Topography:	Local configuration of the earth's surface, including its relief and the position of its natural and man made features.
Fuel Hazards:	A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty
Fire Occurrence:	The number of wildland fires started in a given area over a given period of time.
Homes:	Location and density of homes in a Wildland Urban Interface (WUI) community area.
Businesses:	Numbers of businesses and economic constraints
Jurisdiction:	Defines structural and wildland fire protection responsibilities for the WUI community
Infrastructure risk:	Defines infrastructure risks within the WUI community
Community values:	Important values at risk within the WUI community
Local Preparedness Capability:	Emergency protection capabilities (equipment, resources) available for community protection.
Other:	Any concerns not captured in previous categories.
Fire Department Needs:	List of any outstanding fire department needs
Firewise Information:	Program information about assessment need, completion and mitigation measures.

Fuels: Describes the fuels components found in this community.

Fire Regime: Describes the variability of fuels from the historic range.

Treatments: Provides ideas for localized (community) hazardous fuel treatments.

WUI COMMUNITY DESCRIPTIONS

Name: Balsam Township Volunteer Fire Dept. Troy Beckner and Bob Bergstrom Nov 2, 2005 Priority:	Location: County Funding: Township & County Funding
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	-Main County Roads are well maintained year round. -Many secondary roads and driveways are poorly maintained during winter months. -Spring break up challenges equipment when roads are soft. -Gated Access (County, Industrial Forest Lands etc) -Many seasonal residents with difficult access.
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features.	Heavily wooded with lakes swamps and creeks. Rolling with small areas of steep ground with other generally level terrain.
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty	-Logging slash/debris. -Pine plantations of all ages and areas of upland conifers (Jack Pine, Balsam) that have the potential of extreme fire danger with potential crown fire. -Areas of dry swamp grasses that are year round threats.
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time.	-Roughly 8-10 wildfires per year occur within this protection area. -Trees on power lines, burning barrels, occasional lightning strikes, debris burning and recreational fires.
5. Homes: Location and density of homes in a Wildland Urban interface (WUI) community area.	600 homes with an additional 300 seasonal cabins. The area is changing with a lot of seasonal homes being converted to year round homes. High valued homes are found along the lakes.
6. Businesses: Numbers of businesses and economic constraints	-Numerous resorts -Bar/restaurant -Cafe -Two fuel stations/general store -Several logging operations -Several excavating contractors -Group homes (crooked lake, king lake etc) for girl scouts, target youth, rehabilitation center.
7. Jurisdiction: Defines structural and wildland fire protection responsibilities for the WUI community	Balsam Fire Dept. has mutual aid with neighboring departments through Chiefs Association, MN DNR (Deer River, Grand Rapids, Effie and Hibbing stations) US Forest Service Deer River Area or Marcell (cache)
8. Infrastructure Risk: Defines infrastructure risks within the WUI community	-County Hwy. Dept garage (stored fuels & heavy equipment) -Two stores with gas stations with gas pumps, stored fuels, propane etc -High voltage transmission line -Taconite trail -Grant in Aid snowmobile trails -A north segment of the Trout Lake (Joyce estate) hiking trail -USFS Marcell Experimental Watershed Facility

Name: Balsam Township Volunteer Fire Dept. Troy Beckner and Bob Bergstrom Nov 2, 2005		Location: County Funding: Township & County Funding
Priority:		
9. Community Values: Important values at risk within the WUI community	<ul style="list-style-type: none"> -Bar/restaurant -Two store gas stations -Two churches -Numerous resorts -Group homes -Balsam Township Community Center & recreational area -Fire hall -Café -Industrial Forest Lands -Seasonal and year round homes 	
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection.	<ul style="list-style-type: none"> -Two class A pumpers -1800 gallon tanker -Rescue truck -One Type 6 brush truck -All vehicles have mobile radios -Base radio in fire hall -GPS transmitters in three trucks (tracked at dispatch) -8 hand held radios -3 dry hydrants -Mutual Aid Agreements with DNR and all neighboring departments through Chiefs Association -2-5 active members on department -When paged, the map is FAXED to fire hall through 911 dispatch 	
11. Other: Any concerns not captured in previous categories.	<ul style="list-style-type: none"> -Protection area covers 150 square miles -Response times can be problematic -This area is isolated from adjoining fire depts. 	
12. Fire Department Needs: List of any outstanding fire department needs	<ul style="list-style-type: none"> -A place to house a rig in the northern portion of the protection area -Outdated personal protection gear needs to be replaced -Specialized wildfire gear needs to be issued (hardhats, goggles, gloves) PPE -Additional Dry hydrants and/or under ground storage tanks. Some areas are unable to have dry hydrants. -Thermal imaging camera -Access to gated areas 	
13. Firewise Information: Program information about assessment need, completion and mitigation measures.	<ul style="list-style-type: none"> -Assessments are just beginning. -Educating seasonal residents about fire dangers and prevention 	
14. Fuels: fuel components	<ul style="list-style-type: none"> -Some hardwoods, and areas of swamp grass with organic soils -Primarily the area is aspen, birch and areas of continuous conifer cover with a number of all-aged pine plantations. Very sandy soils. -Logging debris/slash 	
15. Fire Regime/Condition Class: describes the variability of fuels from the historic range.	<ul style="list-style-type: none"> -Historic Fire Regime:IV -Current Fire Regime: V -Condition Class: 2/3 	

Name: Balsam Township Volunteer Fire Dept. Troy Beckner and Bob Bergstrom Nov 2, 2005		Location:
Priority:		County Funding: Township & County Funding
16. Vegetation Treatments: Provides ideas for localized hazardous fuels treatments.	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education of vegetation treatments -reduce hazards near community/village improvements and infrastructure -logging -thinning -slash treatments for all landowners (public and private) -hazardous fuel reduction -biomass harvesting -pruning -prescribed burns -yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -mowing lawns around structures -tree removal -weed control 	

Name: Bearville Fire Dept. Tim Bormann October 26, 2005		Location:
Priority:		County Funding:
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	Highway 1, Highway 65, Highway 22 providing all weather access. County gravel roads in good condition excluding spring break up. Snake Trail Forest Road, Buttonbox Road And Holstrum Forest Road are Class D	
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features.	Generally level with areas of rolling terrain (Snake Trail). Portions of the Bearville protection area have steep terrain. This landscape is predominately forested with small farmsteads with lakes and streams scattered throughout.	
3. Fuel Hazards: a fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty.	Upland conifers (jack pine, balsam, white pine and Norway) are found throughout this area which has potential for extreme fire behavior. Areas of upland and lowland grasses creating seasonal hazards.	
4. Fire Occurrence: the number of wildland fires started in a given area over a given period of time.	A low wildland fire occurrence with high potential, this area usually has 3-10 fires per year.	
5. Homes: location and density of homes in a wildland urban interface (WUI) protection area	Dispersed single family dwellings in a rural setting, with old farmsteads many of which contain several structures/outbuildings. Seasonal recreational properties are intermixed throughout the protection area (hunting cabins, lake cabins).	

Name: Bearville Fire Dept. Tim Bormann October 26, 2005		Location:
Priority:	County Funding:	
6. Businesses: numbers of businesses and economic constraints	Bearville lacks traditional business. One local bar and restaurant service the area. A sawmill and planer mill complex in Carpenter township. One sawmill is located in Togo.	
7. Jurisdiction: defines structural and wildland fire protection responsibilities for the WUI	Bearville Fire Dept. services two townships in St. Louis County and Townships 62-23W, 62-22W, 61-22W and the following sections within 60-22W.: Sections: 2-11, Sections 14-23 and Sections 26-35 within Itasca County. -Mutual Aid with Algoman Fire Coalition in St. Louis County, Kooch & Itasca -Mutual Aid with Itasca County Chief Association (Nashwauk, Balsam, Bigfork). -Mutual Aid with DNR (Side Lake/Cook).	
8. Infrastructure risk: defines risks within the WUI	-Major powerline 500 KV from Winnipeg to Elk River -Local power distribution lines -Telephone company substation in Bearville protection area	
9. Community values: important values at risk within the community	-Two town halls -Fire Station -Church -Permanent and seasonal residents (hunters and recreational users).	
10. Local Preparedness Capability: emergency protection capabilities (equipment resources) available for community protection	Bearville Fire Hall situated on County Road 22, and is centrally located within the protection area. Equipment:-750 gpm pumper with 1000 gallon tank -2000 gallon tanker/truck -3500 gallon tanker/truck -Brush rig with four wheel drive & 200 gallon tank -Trailer mounted 500 gpm firepump Mutual Aid with: Algoman Coalition Itasca County Fire Chief Association DNR	
11. Other: Concerns not captured in previous categories	Bearville RFD is a 210 square mile protection area. Bearville also provides assistance to DNR-Forestry outside of the protection area. This is an isolated area located 27 miles from Cook, 30 miles from Nashwauk and over 30 miles from Bigfork. Because of this remoteness, this RFD is prepared to act independently until mutual aid arrives.	
12. Fire Department Needs: List any outstanding fire department needs.	-A second pumper truck would increase service potential. -Dry hydrants would be valuable and should be explored. -Extrication and rescue equipment for this remote area. -Recruitment and retention of personnel.	
13. Firewise Information: Program information about assessment needs, completion and mitigation measures.	-Township annually sponsors a fire extinguisher inspection day for citizens. -This Rural Fire Department would be interested in helping with outreach efforts, educating citizens, seasonal residents on potential fire problems, vegetation treatments, access problems etc.	
14. Fuels: fuels components	-Lumber companies waste products (sawdust, chips) -Logging slash/debris -Forest (conifer and hardwood) with crown fire potential in contiguous conifer cover with tall swamp grass within rural areas -Peatlands	

Name: Bearville Fire Dept. Tim Bormann October 26, 2005		Location:
Priority:	County Funding:	
15. Fire Regime/Condition Class: describes the variability of fuels from the historic range	Historic Fire Regime III Current Fire Regime IV Condition Class 2	
16. Vegetation Treatments: Provides ideas for localized hazardous fuels treatments.	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning, -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -mowing lawns around structures -Tree removal -weed control 	

Name: Bigfork RFD Ron Root December 6, 2005		Location:
Priority:	County Funding:	
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	<p>NOTE: this is the largest protection area (roughly 23 townships) covering 760 Square miles in Itasca County. Bigfork's protection area extends into Koochiching County.</p> <ul style="list-style-type: none"> -Primary arteries Hwy 38, Hwy 1, Hwy 6, Hwy 286 -Paved County Roads 14, 7, 29, 35, 4 -And a network of gravel secondary (County Roads) -Seasonal forestry logging roads (e.g. Farm Camp Road) -Snowmobile Trails -ATV Trails -Gated Roads -Railroad grades now recreational trails -Numerous lakes and streams pose access challenges -Airport at Bigfork -public water accesses -Residential and Seasonal homes with narrow access posing challenges for emergency service vehicles. 	
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features.	<ul style="list-style-type: none"> -Forested landscape that is fairly level to gently rolling. -Suomi area has steep terrain. -Numerous lakes and streams (Bigfork River, Rice River, Turtle River, Coon Creek). -Very remote areas with difficult access. 	

Name: Bigfork RFD Ron Root December 6, 2005		Location:
Priority:	County Funding:	
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty	<ul style="list-style-type: none"> -Grass lands -Upland Conifers, pure stands of Norway Pine, White Pine, Pine plantations -Bog-peatlands -Lowland Conifers -Logging debris/slash -Aspen stands with Balsam -Northern hardwoods -Areas of blowdown timber -Homes and cabins scattered throughout the area-a high WUI 	
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time.	Average of 8-10 wildland fires each year.	
5. Homes: Location and density of homes in a Wildland Urban Interface (WUI) community area.	<ul style="list-style-type: none"> -Approximately 3,000 residents within this protection area. -Bigfork is the hub of the protection area and Marcell is the largest population hub with many people living along the lakes and throughout the Chippewa National Forest -Dora Lake, Spring Lake, Effie, Pomroy, Liberty, Talmoon (Bowstring), Scenic area -The Bigfork protection area has many seasonal residents (1200 people). -There are clusters of homes within the communities, Lake communities, rural farmsteads (dairy operations, beef), hunting camps. -Resorts are found throughout the protection area. -This area has high property values 	
6. Businesses: Numbers of businesses and economic constraints	<p>Primary business is logging</p> <p>Retail business, Cottage based businesses, gas stations, Sawmills, Bergquist Switch, School, Hospital/senior citizen, a number of assisted living facilities, Aspen Fiber, Lakeside Lumber, bars, restaurants, resorts, Community Centers, Construction businesses, Log home building, Electric Co-op, North Star Gas (propane,) Bigfork oil with above ground bulk storage, Scenic State Park, County Parks at Bass Lake and Larson Lake, Chippewa National Forest: North Star Campground, Club house Campground, Lost 40, Effie road, Airport, Fire Hall, DNR Effie, State Hwy Garage (Effie) County Garage on Hwy 7. Edge Golf Course</p>	
7. Jurisdiction: Defines structural and wildland fire protection responsibilities for the WUI community	<ul style="list-style-type: none"> -City of Bigfork -Contract agreements with townships and unorganized townships -Mutual Aid agreements with Itasca Chief Association, DNR and USFS 	
8. Infrastructure risk: Defines infrastructure risks within the WUI community	<ul style="list-style-type: none"> -North Star Gas (propane,) Bigfork Oil with above ground bulk storage -Local distribution lines -Power substations at Wirt, Jessie Lake and Bigfork -69 KV powerline found 1 mile south of Bigfork serving the Wirt and Alvwood area -Public Utilities (sanitary lift stations) -Transportation system -Recreational trails -Campgrounds (federal, state, county) -Bigfork (AWAS - weather station) 	

Name: Bigfork RFD Ron Root December 6, 2005		Location:
Priority:		County Funding:
9. Community values: Important values at risk within the WUI community	-Area churches, schools, hospital (critical care unit), business, parks and recreational facilities and opportunities, Rajala Sawmill, Bergquist switch, Airport, Fire Hall, VFW, Legion, Edge Golf Course, Bigfork City hall, Community Center (Marcell), Local town halls, Resorts, Cellular towers, Civil defense tower (Suomi), MN Power Tower (located south of Bigfork), Public Water Accesses, Large public land base with outdoor recreation amenities (Twin Cities playground).	
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection.	<ul style="list-style-type: none"> -Two 2000 gallon tankers with 1000 gpm pump -Two 1000 gallon pumpers -One Type 6 vehicle/ troop carrier grass rig with 250 gallon tank -Sheriff stores 6 wheeler and snowmobile with rescue equipment -Cold suit rescue equipment -Extrication equipment Jaws of life -Zodiak boats -Portable pumps 	
11. Other: Any concerns not captured in previous categories.	This is a very large protection area covering 760 square miles. The RFD has a very good response time; however, areas on the perimeter may have a poor response time being 45 – 60 minutes (Hwy 65).	
12. Fire Department Needs: List of any outstanding fire department needs	<ul style="list-style-type: none"> -Recruitment and retention -PPE is needed for wildland fire fighting -Dry hydrants/water storage -SCBA (upgrade to positive pressure) -Bunker gear -First response vehicle -Replacement of pumper vehicles -Contract service agreements for maintenance and repairs -Training for staff -Communication upgrades 	
13. Firewise Information: Program information about assessment need, completion and mitigation measures.	<ul style="list-style-type: none"> -Fire prevention and fire safety week at area schools (Bigfork and North School) -Fire safety for children-fire awareness and response -Other outreach include open house, smoke detectors, tot finders, -There are no wildland fire outreach programs at this time 	
14. Fuels: Describes the fuels components found in this community.	<ul style="list-style-type: none"> -Grass lands -Upland Conifers, pure stands of Norway Pine, White Pine, Pine plantations -Bog-peatlands -Lowland Conifers -Logging debris/slash -Aspen stands with Balsam -Northern hardwoods -Areas of blowdown timber -Homes and cabins scattered throughout the area-a high WUI -Propane tanks-above ground storage tanks -Sawmill sites 	
15. Fire Regime/Condition Class: Describes the variability of fuels from the historic range.	<ul style="list-style-type: none"> -Historic Fire Regime IV Current Fire Regime V Condition Class 1/2 	

Name: Bigfork RFD Ron Root December 6, 2005		Location:
Priority:		County Funding:
16. Vegetation Treatments: Provides ideas for localized (community) hazardous fuel treatments.	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning, -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -mowing lawns around structures -Tree removal -weed control 	

Name: Blackduck Fire Department Richard Bogart February 9, 2006		Location:
Priority:		County Funding:
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	<p>Blackduck FD services 372 square miles. Within Itasca County the Blackduck FD services Moose Park Township (Township 149-29W.).</p> <ul style="list-style-type: none"> -The primary access is County Road 13 (paved) in Itasca County which transitions to County Road 30 in Beltrami County. There are gravel Roads through the SW portion and County Road 138 (Rancore Road) parallels the eastern border of the township. -Snowmobiles trails that are primarily used locally are found throughout the twp. along with logging trails. 	
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features.	<ul style="list-style-type: none"> -The topography in Moose Park township is generally level to rolling. -Streams and creeks running through the area. -Skimerhorn Lake is found in the southeast corner of the township. -This SE portion of the township has lighter soils, with more of a conifer component. 	
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty	<ul style="list-style-type: none"> -Logging slash and debris -Areas of upland conifers, aspen, balsam interspersed pine plantations. -Areas of upland and lowland grass. -Blackduck protection area has areas of Jack Pine Budworm. SE corner of the township has lighter soils and heavy conifer component (jack pine) 	
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time.	<p>Blackduck fire department has very few wildland fires since changes in the burning regulations. Historically Blackduck FD there has been 2-10 wildland fires per year and Moose Park Twp. has very few wildland fires. Blackduck FD had a total of 15 fires last year (structure & wildfire).</p>	

Name: Blackduck Fire Department Richard Bogart February 9, 2006		Location:
Priority:	County Funding:	
5. Homes: Location and density of homes in a Wildland Urban Interface (WUI) community area.	Moose Park township has homes found along the roadways (approximately 75 residences with a few hunting cabins). Farms (beef, elk, dairy) are found within the area. Recently, there has been a small increase in homes in this forested area. Homes have poor access-limited access for fire equipment and there is concern over winter time access. This FD brings along a truck with a snowplow to ensure fire rigs being able to access and service the residences.	
6. Businesses: Numbers of businesses and economic constraints	-Loggers –based out of their homes. -Farms -cottage based business	
7. Jurisdiction: Defines structural and wildland fire protection responsibilities for the WUI community	-Moose Park TWP. is in Chippewa National Forest and Blackduck State Forest. -Blackduck FD is contracted through the city -Moose park is an organized township & contracts with Blackduck FD -Mutual Aid Agreements with USFS, DNR, Squaw Lake (Itasca Chiefs Association) Cass Lake, Bemidji (Alaska fire dept.) Kelliher, Northome --all townships within the BD FD are organized.	
8. Infrastructure risk: Defines infrastructure risks within the WUI community	-Homeowners (bulk tanks) -Local power distribution -Roads/trails -Slash piles	
9. Community values: Important values at risk within the WUI community	Town hall located on County Road 30. Cemetery Very rural with homes etc. Chippewa National Forest & public lands	
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection.	-1997 Pierce 1250 gpm pump with 1000 tank -1997 water tender with 2100 gallons -1980 general fire truck pumper with 750 gpm with 750 gallon tank -1985 water tender with 1500 gallon tank -2005 rescue truck (no h2o) -NO grass rig (feds & state generally take lead) -no atv rescue equipment -cold water rescue suits -extrication equipment -two portable pumps (400 gpm, 450 gpm)	
11. Other: Any concerns not captured in previous categories.	Outlying areas are 20 miles from the station Response time averages from 4 to 20 minutes. On average 14 firefighters respond to each fire.	
12. Fire Department Needs: List of any outstanding fire department needs	-new water tender -all terrain vehicle to access & service calls to remote areas. -dry hydrants...but terrain/locations are prohibitive and along with equipment, time to service the dry hydrants. -PPE for wildland fire -type 6 engine to respond to wildland fire -Obsolete SCBA -Recruitment, Retention, Training	
13. Firewise Information: Program information about assessment need, completion and mitigation measures.	-Fire prevention activities -No wildland fire outreach. Usually the DNR, USFS take the lead on wildfire suppression.	

Name: Blackduck Fire Department Richard Bogart February 9, 2006 Priority:		Location: County Funding:
14. Fuels: Describes the fuels components found in this community.	<ul style="list-style-type: none"> -Logging slash and debris -Areas of upland conifers, aspen, balsam interspersed pine plantations. -Areas of upland and lowland grass. -Blackduck protection area has area of Jack Pine Budworm. 	
15. Fire Regime/Condition Class: Describes the variability of fuels from the historic range.	<ul style="list-style-type: none"> Historic Fire Regime III Current Fire Regime IV Condition Class 2/3 	
16. Vegetation Treatments: Provides ideas for localized hazardous fuels treatments.	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning, -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -mowing lawns around structures -Hazardous Tree removal -weed control 	

Name: Bovey Fire Department- Kevin Odden November 16, 2005 Priority:		Location: County Funding:
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	<ul style="list-style-type: none"> Paved all season roads with year round access include: State Hwy 169, Co. Road 10, Co Road 70, Co. Road 71, County Road 12, County Road 21. This protection area has a network of county gravel roads-class D that have seasonal problems (spring break up, heavy snows). Narrow dead end roads interspersed. Coverage area is 52 square miles with a 20 minute response time to outlying areas. 	
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features.	<ul style="list-style-type: none"> Level to rolling terrain, areas of peat Mine dumps are steep hills —many are water filled. 'Satellite Hill' has rugged, steep terrain. 	
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression	<ul style="list-style-type: none"> Hardwoods, mixed upland conifers and heavy grass. Logging debris/slash peatlands 	

Name: Bovey Fire Department- Kevin Odden November 16, 2005		Location:
Priority:	County Funding:	
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time.	Approximately 6 wildland fires each year.	
5. Homes: location and density of homes in a wildland urban interface (WUI) protection area.	Population of the city of Bovey, Trout Lake Township & unorganized (55-23 W. section 1-24.) approximately 2,000 people. Residential areas within communities with rural residences scattered throughout. This area has permanent lake homes throughout the area and with individual farms.	
6. Businesses: numbers of businesses and economic constraints	Bovey is the hub within this protection area with small businesses, restaurants, convenience store, Built rite trailers, bars, Enstroms Studio, schools, churches etc. Welding and fabrication located on CO. Rd. 10	
7. Jurisdiction: defines structural and wildland fire protection responsibilities for WUI	City of Bovey and Trout Lake Twp and unorganized 55-23W. Mutual Aid with Itasca County Chiefs Association DNR Forestry	
8. Infrastructure Risk: Defines infrastructure risks within the WUI community	<ul style="list-style-type: none"> -Mesabi Bike Trail -Powerlines 500 KV going through 55-23 W. -Major Substation -Snowmobile trails -Railroad (currently abandoned) 	
9. Community values: Important values at risk within the community	<ul style="list-style-type: none"> -Trout Lake Twp community Center -Churches -Middle School -City Hall -Fire Hall -RV Park -Greenway Lions Park Campground Trout Lake (Kom-on-In Beach) -Skating Rink/Ball Field -Centennial Celebration of the Bovey RFD. 	
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection	<ul style="list-style-type: none"> -6 passenger Grass Rig 200 gallons - One thousand gallon pumper -One 750 gallons pumper -One Three thousand gallon tanker/pumper (FEMA grant) -Power auger -portable pumps 	
11. Other: concerns not captured in previous categories.	<ul style="list-style-type: none"> -Satellite hill with its rugged terrain and poses special physical challenges. -Gated forest roads with limited access 	
12. Fire Department Needs: List of any outstanding fire department needs	<ul style="list-style-type: none"> -Six wheeler with foam unit -Snowmobile -Dry hydrants -Underground storage tanks -Recruitment and Retention of Volunteers 	
13. Firewise Information: Program information about assessment needs, completion and mitigation measures.	<ul style="list-style-type: none"> -Outreach efforts: parades and open houses. -Demonstrations trout lake community 	

Name: Bovey Fire Department- Kevin Odden November 16, 2005		Location:
Priority:		County Funding:
14. Fuels: fuel components	<ul style="list-style-type: none"> -Upland Conifers -Heavy Grasses -Powerlines -Wildland Urban Interface -Natural gas pipeline -Propane tanks residential area -Logging debris/slash -Peatlands 	
15. Fire Regime/Condition Class:	<ul style="list-style-type: none"> Historic Fire Regime V Current Fire Regime V Condition Class 2/3 	
16. Vegetation Treatments:	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning, -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -mowing lawns around structures -Tree removal -weed control -Improve access -Defensible space -Fuel reduction -Maintenance for firebrakes 	

Name: Calumet Fire Department Jerry Larson December 5, 2005		Location:
Priority:		County Funding:
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	<ul style="list-style-type: none"> -City Streets -Hwy 169 and County Road 12 and Class D Roads (Red Lake Road) -Access to Hill Annex State Park and to Snowball Lake -Railroad, -Mesabi Trail, -Greenway Snowmobile Trail 	
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features.	Primarily level with steep terrain in mine dumps	

Name: Calumet Fire Department Jerry Larson December 5, 2005		Location:
Priority:	County Funding:	
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty	Fine fuels, grass Forest land Mining debris and white goods (tires etc.)	
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time	1-2 fires within current protection area	
5. Homes: Location and density of homes in a Wildland Urban Interface (WUI) community area.	-Homes are located within City of Calumet -Rural areas with Hill Annex Mine State Park and Snowball Lake Area with a cluster of single family homes in the WUI -Population of 410	
6. Businesses: Numbers of businesses and economic constraints	-2-Convenience stores -Bar & Grill, -Tattoo store -Auto dealers, Gun shops, retail -Hill Annex State Park -Auto recycling yard	
7. Jurisdiction: Defines structural and wildland fire protection responsibilities for the WUI community	-City of Calumet -Mutual Aid with Itasca County Fire Chief association DNR (Hibbing Area)	
8. Infrastructure risk: Defines infrastructure risks within the WUI community	-Natural Gas (Aquila) -Bulk gas storage facilities (gas stations) -Local power distribution lines -Railroad -City -Junk yard -Mesabi Trail Greenway Snowmobile trail -Accessing some of the rural areas with proper equipment	
9. Community values: Important values at risk within the WUI community	-Church -3-Senior Citizen buildings -Post office -Community Hall -Fire Hall -State Park-Hill Annex -Greenway Snowmobile Club	
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection.	-Two 1500 pumper with 1000 gpm -One 1500 tanker -Type 6 300 gallon grass rig with foam (six passenger) -4 wheeler with 50 gallon tank -hydrants/water tower for water -portable pump	
11. Other: Any concerns not captured in previous categories.	-Calumet is approximately 5 square miles -Historically the Calumet protection area the Greenway township -Response time is excellent with 3-15 minutes.	

Name: Calumet Fire Department Jerry Larson December 5, 2005		Location:
Priority:	County Funding:	
12. Fire Department Needs: List of any outstanding fire department needs	<ul style="list-style-type: none"> -Recruitment and Retention -PPE needed for structural and wildland fires -Remodel Fire Hall for improved access -Communication upgrade -Hazard Reduction within protection area 	
13. Firewise Information: Program information about assessment need, completion and mitigation measures.	<ul style="list-style-type: none"> -Fire prevention education with schools in area -FD open house 	
14. Fuels: Describes the fuels components found in this community.	<ul style="list-style-type: none"> -Fine fuels, grass -Forest land composed of Jack Pine on mining dumps, hardwoods with aspen, balsam -Mining debris and white goods (tires) 	
15. Fire Regime/Condition Class: Describes the variability of fuels from the historic range.	<ul style="list-style-type: none"> -Historic Fire Regime V -Current Fire Regime V -Condition Class 2/3 	
16. Vegetation Treatments: Provides ideas for localized (community) hazardous fuel treatments.	<ul style="list-style-type: none"> -Access improvement and defensible space improvement -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning, -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -mowing lawns around structures -Tree removal -weed control 	

Name: Cohasset Denny Lemler Priority:		March 21, 2006	Location: County Funding:
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	<p>Good Roads with major Hwy 2, Hwy 6 and Hwy 38 is found on the eastern boundary of the protection area.</p> <p>Paved county roads exist within the protection area along with a network of county roads that are dirt and gravel creating seasonal challenges during spring break up.</p> <p>Major snowmobile corridor on the north side of Cohasset following pipeline/gasline connects to Taconite trail.</p> <p>Recreational trails include a Ski/walking trail near portage park (Bassbrook WMA) and the Minnesota power ski trail maintained by the city of Cohasset.</p> <p>The Railroad parallels hwy. 2</p> <p>Many public water accesses along lakes and rivers (Mississippi River).</p> <p>Logging roads</p> <p>Access Challenges: Private driveways have limited access and egress. Mississippi river divides the protection area. Limited gated access to Minnesota Power lands, county land fill Very limited access in Township 54-27 W. heavy logging area</p>		
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features.	<p>10% of the area is rolling type and 90% flat area.</p> <p>The southern area is mostly rolling hills, lakes and streams. Some farms in the southern area.</p> <p>The northern area is primarily farming, small lakes and pine plantations.</p> <p>The Mississippi River divides the protection area.</p>		
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty	<p>Spruces, Conifers and Aspens</p> <p>Wetland grass area found along both sides of the Mississippi River, Mud Goose, Little White Oak,</p> <p>Plantations: Christmas tree farms, wind breaks etc.</p> <p>Light fuels: grasses, pine needles.</p> <p>Logging debris, slash</p> <p>Pallets</p> <p>A tremendous amount of wildland urban interface.</p>		
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time.	Low		
5. Homes: Location and density of homes in a Wildland Urban Interface (WUI) community area.	<p>-Northern Pokegama Lake area is rapidly growing with new constructions valued from \$300,000 to \$500,000 of which the majority are year round homes. The north area has had some cabins built recently which are typically seasonal homes.</p> <p>-City of Cohasset has individual residential homes with apartment buildings</p> <p>-Area lakes have year round residences and seasonal residences.</p> <p>-Rural property is getting developed.</p> <p>-Deer Lake is developed--Starr Island</p> <p>-Population is 4500 which triples during summer season.</p>		

Name: Cohasset Denny Lemler Priority:		March 21, 2006	Location: County Funding:
6. Businesses: Numbers of businesses and economic constraints	<p>Minnesota Power and small business are all located in within the city of Cohasset. 90% of the community has city sewer, gas and water.</p> <p>Retail and manufacturing, two industrial parks, lumber mill and saw mills, Nelson Wood Shims. Larex, Itasca Greenhouse, ASV, Pallet, Bass brook recycling, two salvage yards, Itasca County land fill, Davis Petroleum (bulk tank), Industrial lube warehouse, Bart Hoard Oil, Willey Transport, Brinks Sand & Gravel, Rajala Construction, two gas stations/convenience stores, Bank, Northern Lights truck & trailers repair. Wood storage yards- alternate landings.</p> <p>Cottage based business</p> <p>8 Resorts (Bass Lake, Deer Lake).</p>		
7. Jurisdiction: Defines structural and wildland fire protection responsibilities for the WUI community	<p>Cohasset Fire Dept., DNR, USFS have state mutual aid agreements</p> <p>City of Cohasset is organized and the Fire Department administrator.</p> <p>All townships within this protection area are 'unorganized'.</p>		
8. Infrastructure risk: Defines infrastructure risks within the WUI community	<ul style="list-style-type: none"> -Minnesota Power power plant (coal), transmission lines and substations -Enbridge Pipe lines and substations located through the city -Great Lakes Gas (liquid natural gas) -Municipal gas located in Cohasset -public utilities -roads and bridges -forest products industry -Transportation system-HWY 2 Corridor & Rail -Two: Water Towers -Mississippi River Corridor -Pokegama Government Dam -Local Distribution Lines -County Land fill and transfer station High Risk! -Permanent burn site, Sentence to serve wood pile -Industrial parks 		
9. Community values: Important values at risk within the WUI community	<p>Recreational lakes and rivers for fishing, hunting camping and resorts</p> <p>Cohasset Elementary, Churches, Parks (portage, Tioga beach, Rajala field)</p> <p>Community Center, Fire Dept. Public Works building</p> <p>Senior Center</p> <p>Post Office</p> <p>Bank & retail business</p> <p>Community fishing piers</p> <p>Pokegama Recreational Site</p>		

Name: Cohasset Denny Lemler Priority:	Location: County Funding:
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection.	Cohasset Fire Hall Houses: One-main line pumpers 1500 gpm with 1000 gallon tank One-1000 gpm with 750 gallons Portable pump on skid trailer 750 gpm One- 1000 gpm pto pump wildland pumper One-wildfire initial attack unit 250 gpm with foam capability One- three thousand gallon water tender with pumping capabilities Rescue/Man power vehicle Adequate communications—but there are dead zones within protection area. Wildland fire PPE and structure fire gear Ice Angel Zodiac Rapid deployment craft Six by Six Polaris ATV Orion Rescue Sled Small portable truck and tank on a pull behind trailer Two-three thousand drop tank tanks One- two thousand drop tank Extrication equipment Defibrillator SCBA full cascade system with 21 complete SCBA systems with 45 bottles TWO dry hydrants one in the north and one located in the southern portion of the protection area. Cohasset has mutual aid agreements county wide and Grand Rapids is bordering to the east and Deer river is to our west.
11. Other: Any concerns not captured in previous categories.	Average response time is 4 minutes Outlying areas would average 15-20 minutes depending on road and weather conditions. This is a large protection area with 126 square miles- the southern portion is remote. This area has seen the largest population, rapid growth and housing increases in the county.
12. Fire Department Needs: List of any outstanding fire department needs	-Communication equipment upgrades: radios hand held, mobiles and bases. -wildland fire truck/rescue rig replacement, -dry hydrants need upgrading -Future upgrade of pumper (1987). -Recruitment and Retention (support legislation that subsidizes businesses to encourage RFD staff) -Training
13. Firewise Information: Program information about assessment need, completion and mitigation measures.	National Fire Prevention Week with Cohasset School Pre School & Church Schools These have been posted in the local paper for community awareness

Name: Cohasset Denny Lemler Priority:		March 21, 2006	Location:
			County Funding:
14. Fuels: Describes the fuels components found in this community.	<ul style="list-style-type: none"> -Conifers and Hardwoods (spruce, aspen, pine etc). -Wetland grass area found along both sides of the Mississippi River, Mud Goose, Little White Oak -Plantations: Christmas tree farms, wind breaks, pine plantations etc. -Light fuels: grasses, pine needles. -Logging debris, slash -Pallets -Propane tanks, coal fires (at Minnesota power) -Sawdust piles -Dust collectors (wood products industry) 		
15. Fire Regime/Condition Class: Describes the variability of fuels from the historic range.	<ul style="list-style-type: none"> Historic Fire Regime IV Current Fire Regime V Condition Class 2/3 		
16. Vegetation Treatments: Provides ideas for localized hazardous fuels treatments.	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning, -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -mowing lawns around structures -Hazard Tree removal -weed control 		

Name: Coleraine Randy Savich Priority:		December 7, 2005	Location:
			County Funding:
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	<ul style="list-style-type: none"> -Primary artery through the Coleraine protection area is Hwy 169 -Paved County Roads are # 61, 10, 440, Prairie Lake Road, -Gravel Co. Road 325, Baich Road and a network of smaller roads accessing seasonal homes/recreational trails. -Mesabi Bike Trail -Taconite Snowmobile Trail -Mining area trail roads (Seven City/Caniesteo Mine) - Railroad (currently not used) -18,000 acres within this protection area. 		
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features.	<ul style="list-style-type: none"> -Landscape is forested with level to rolling terrain. -Areas of steep terrain near mine dumps. -Farm fields in the outlying area. -Much of the Coleraine protection area is bounded by prairie lake & river. -Trout lake is located on the southeast side 		

Name: Coleraine Randy Savich December 7, 2005		Location:
Priority:		County Funding:
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty	<ul style="list-style-type: none"> -Mixed conifers, hardwoods and grass. -Big agricultural fields in Arbo -Logging slash and debris -Mineland reclamation plantations -Homes interspersed in the forested area. 	
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time	-Approximately 2 per year (arsonist currently incarcerated).	
5. Homes: Location and density of homes in a Wildland Urban Interface (WUI) community area	Population of Coleraine 1,110 And approximately 600 in the outlying area.	
6. Businesses: Numbers of businesses and economic constraints	<ul style="list-style-type: none"> -Retail business -2-Bulk Fuel oil -2-propane above ground storage -Coleraine University of Minnesota Minerals Research Lab -USX steel lab -2-Gas Stations -Bars/Restaurants -Construction Contractors -MN POWER -City Hall -Bank -Post office -Auto Body -Cemetery -2-Parks -Ski Hill -Police station -Golf Course -Hockey Arena -Football Field -Rural cottage based business 	
7. Jurisdiction: Defines structural and wildland fire protection responsibilities for the WUI community	<ul style="list-style-type: none"> -City of Coleraine -Annual Contracts with 3 townships (trout lake, Arbo & grand rapids townships) -Mutual aids with Itasca county fire chief associations, DNR 	
8. Infrastructure risk: Defines infrastructure risks within the WUI community	<ul style="list-style-type: none"> -Transportation system -Local power distribution lines -Natural gas line (Aquila) -MN Power lines -Water towers -Railroad -Recreational trails -Volatile materials at research lab -Lift stations for septic -Fuel oil at schools 	

Name: Coleraine Randy Savich December 7, 2005		Location:
Priority:	County Funding:	
9. Community values: Important values at risk within the WUI community	Schools, Churches, Community Center, Assisted living facilities, day care Baich clinic, recreational sites, fire hall, parks, ski hill, golf course, lakes & woods!	
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection.	<ul style="list-style-type: none"> -One pumper 1000 gallons with 1250 gpm -One pumper 750 gallons with 1000 gpm -One type 6 engine grass rig with 250 gallons -first responder rig -snowmobile -rescue sled -boat -Extrication equipment Jaws of life (new) -2 portable pumps 300 gpm - 2 generators -cascade system for SCBA -emergency management services (director, police dept) -deliberator -dry hydrant on prairie lake 	
11. Other: Any concerns not captured in previous categories.	18,000 acres Response time 12-15 minutes for the entire area. * This protection area has a few smaller, narrower roads that pose an access challenge.	
12. Fire Department Needs: List of any outstanding fire department needs	<ul style="list-style-type: none"> -water storage tanker -dry hydrant on trout lake -ATV to help service mine areas, recreational areas. -update grass rig---letting more volunteers help on calls -drop tank -nozzles -communications equipment -facility---storage space -Wildland PPE -Large diameter hose, hose for grass rig -Recruitment and retention of volunteers 	
13. Firewise Information: Program information about assessment need, completion and mitigation measures.	<ul style="list-style-type: none"> -Fire Dept. Open house with Firewise information -Fire prevention week -school fire prevention programs 	
14. Fuels: Describes the fuels components found in this community.	<ul style="list-style-type: none"> -Mixed conifers, hardwoods and grass. -Big fields in Arbo -Logging slash and debris -Mineland reclamation plantations -Homes interspersed in the forested area -Propane tanks -Fuel oils -Natural gas pump (ski view west) -Hazardous chemicals at research labs -Gas stations. -WUI 	
15. Fire Regime/Condition Class: Describes the variability of fuels from the historic range.	Historic Fire Regime V Current Fire Regime V Condition Class 2 / 3	

Name: Coleraine Randy Savich December 7, 2005		Location:
Priority:		County Funding:
16. Vegetation Treatments: Provides ideas for localized (community) hazardous fuel treatments.	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -mowing lawns around structures -Tree removal -weed control 	

Name: Deer River Rural Fire Dept. Jim Daigle, Bill Brink October 25,2005		Location:
Priority:		County Funding:
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	<ul style="list-style-type: none"> -Good Roads with three major highway intersecting area (Hwy. 2, Hwy 6 and Hwy 46). -Gravel Roads in good conditions, with the exception of spring break up. -Poor access on Forest Roads-Classification D. 	
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features.	Predominately flat, western area forested with many lakes and streams within the coverage area.	
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty	Spruce, upland conifers and swamps with heavy, tall grassy areas.	
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time.	Low to moderate, with the exception of dry spring conditions which can be potentially high to extreme.	
5. Homes: Location and density of homes in a Wildland Urban Interface (WUI) community area.	Residential and summer homes and cabins. Variability throughout protection area with low to high densities. There are many rural areas within coverage area that have many seasonal summer homes (Deer River Townships).	

Name: Deer River Rural Fire Dept. Jim Daigle, Bill Brink October 25,2005		Location:
Priority:	County Funding:	
6. Businesses: Numbers of businesses and economic constraints	<ul style="list-style-type: none"> -Cenex LP/Fuel plant -Two large pipelines stations -Lumber & Timber Companies -Two Schools (Elementary & High School) -Hospital and Clinic -Approximately 40 businesses within the city of Deer River. 	
7. Jurisdiction: Defines structural and wildland fire protection responsibilities for the WUI community	<ul style="list-style-type: none"> -Deer River Fire Dept has mutual aid agreements with Cohasset, Grand Rapids, Bigfork, Remer, Cass Lake, Squaw Lake RFDs Also with the US Forest Service and DNR -4 townships (Deer River, Morse, Otteanagen, Bowstring townships) with 11 unorganized townships and tribal lands -City of Deer River, Zemple, Ball Club, Inger 	
8. Infrastructure Risk: Defines infrastructure risks within the WUI community	<ul style="list-style-type: none"> -Powerlines, -Pipelines (liquid natural gas & crude oil) -Telephone Company with Towers -Water Tower with hydrant system -Railroad -Major highways -Natural gas services located within the city of Deer River 	
9. Community values: Important values at risk within the WUI community	<ul style="list-style-type: none"> -Hospital -Schools (king elementary and High School) -Lumber companies -Cenex -Holiday Station -Many resorts with recreational lakes attracting tourists and seasonal guests. 	
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection.	<p>Deer River Fire Hall:</p> <ul style="list-style-type: none"> - 1200 gallon pumpers with 1000 gallon tanks, -2 tankers (2000 and 3500 gallon with 600 gal/minute capacity) -Type 6 grass unit (300 gallons with 250 gpm pump) - Fire Rescue Unit (extrication tools and jaws of life) <p>- Mutual Aid with Cohasset, Grand Rapids, Bigfork, Remer, Cass Lake, Squaw Lake</p>	
11. Other: Any concerns not captured in previous categories.	Deer River Fire Department has a large response area with a 500 square mile service area- 25 miles travel distance to the west or north lying areas.	
12. Fire Department Needs: List of any outstanding fire department needs	<ul style="list-style-type: none"> -Dry Hydrants -Fire Fighter recruitment and retention -Training -Rural water supply 	
13. Firewise Information: Program information about assessment need, completion and mitigation measures.	Support from local government units including tribal government units Media for community awareness	

Name: Deer River Rural Fire Dept. Jim Daigle, Bill Brink October 25,2005		Location:
Priority:	County Funding:	
14. Fuels: Describes the fuels components found in this community	<ul style="list-style-type: none"> -Pipelines -Large fuels tanks (gas/fuel oil tanks) -Natural gas within city limits -Lumber companies waste products (sawdust, chips) -Logging slash/debris -Forest (conifer and hardwood) with crown fire potential in contiguous conifer and tall swamp grass within rural areas -Peatlands 	
15. Fire Regime/Condition Class: Describes the variability of fuels from the historic range.	<p>Historic Fire Regime IV Current Fire Regime V Condition Class 2/3</p>	
16. Vegetation Treatments: Provides ideas for localized (community) hazardous fuel treatments.	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -firebreak maintenance -mowing lawns around structures -hazardous tree removal -weed control 	

Name: French Township VFD EMS- Pete Leschak October 25, 2005		Location:
Priority:	County Funding:	
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	<p>North /South Access is ST. Louis County Hwy. 5 This is an isolated area within Itasca County with the only access via Hwy 65 through a seasonal state forest road, through Stingy Lake. The seven square miles protected by French Township, on the west side of Sturgeon Lake is isolated with a complex road system with dead end roads, cartways and generally considered to have poor access.</p>	
2. Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features.	<p>The topography within this seven square mile protection area is considered to be hilly with pine ridges abutting lakeshore, interspersed with bog.</p>	

Name: French Township VFD EMS- Pete Leschak October 25, 2005		Location:
Priority:	County Funding:	
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty.	Mixed Conifer with potential of severe to extreme fire behavior with bug killed balsam fir. Areas of dense Black Spruce. There are not a lot of fine fuels; essentially there are no grassy areas.	
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time.	This area has a low occurrence with one fire per year. The last wildfire occurred two years ago, ignited by a lightning strike.	
5. Homes: Location and density of homes in a Wildland Urban Interface (WUI) community area.	192 Seasonal and permanent residences within this protection area (From cabins to castles).	
6. Businesses: Numbers of businesses and economic constraints	Beatrice Lake Campground within McCarthy Beach State Park	
7. Jurisdiction: Defines structural and wildland fire protection responsibilities for the WUI community	Mutual Aid agreements: Algoman Fire Coalition DNR US Forest Service <i>French Twp.protection area includes Sections 1,12,13,24,25,36 of 60-22West And Section 1-59-22 West.</i>	
8. Infrastructure Risk: Defines infrastructure risks within the WUI community	-A lake country power substation -Local electric distribution -Individual propane tanks at residences	
9. Community Values: Important values at risk within the WUI community	-McCarthy Beach State Park (campground and boat landing) -Public boat landing at Sixberry -Primarily residential	
10. Local preparedness capability: Emergency protection capabilities (equipment, resources) available for community protection.	RFD equipment: Two type 2 engines One type 7 engine One rescue vehicle Zodiac water craft DNR resources: One type 6 engine One type 7 engine One J-5	
11. Other: Any concerns not captured in previous categories.	Seven square mile protection area within Itasca county of this RFD's total 44 square mile service area. All of the dispatching through St. Louis County Midway Dispatch. This area uses St. Louis County 911 system with St. Louis County addresses.	
12. Fire Department Needs: List of any outstanding fire department needs	Recruitment and Retention of volunteers	
13. Firewise: Program information about assessment need, completion and mitigation measures.	This RFD initiated a Firewise informational mailing with voluntary homeowner site inspections and established a community burning pad in 2003. In 2004, funding was extended for the community burning pad. Total project cost for both project \$9,000.	
14. Fuels: fuel components	-Mixed Conifers with very little fine fuels. -Logging slash debris -Peatlands	

Name: French Township VFD EMS- Pete Leschak October 25, 2005		Location:
Priority:	County Funding:	
15. Fire Regime/Condition Class:	Historic Fire Regime III Current Fire Regime IV Condition Class 3	
16. Vegetation Treatments:	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -firebreak maintenance -mowing lawns around structures -weed control - Hazardous Tree removal 	

Name: Goodland RFD T.J. Russell January 26,2006		Location:
Priority:	County Funding:	
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	<p>State Hwy. 65 provides primary access Co. Rd. 12, 16, 20 are paved secondary roads Co. Road is partially asphalt from Goodland to south of twin lakes 560 There are other gravel roads throughout the protection area Forest logging roads, several snowmobile trails, x-c ski trails (big ridge) are prevalent throughout the area. Public water access on long lake, swan lake, pancake lake, island lake etc. Goodland protection area is 72 square miles-two townships</p>	
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features.	<p>The southern portion of the twp is generally level with lowland areas The northern portion is hilly and covered with northern hardwoods (Goodland ridge).</p>	
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty	<p>Logging slash and debris Area farms intersecting with urban interface. Large areas of lowland marsh grass Areas of upland conifers and areas of scattered upland conifers Areas of accumulated standing dead woody fuels (balsam, aspen). Grass farm fields and pasture lands</p>	

Name: Goodland RFD T.J. Russell January 26,2006		Location:
Priority:	County Funding:	
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time.	Goodland averages 4 wild fires each year.	
5. Homes: Location and density of homes in a Wildland Urban Interface (WUI) community area.	<p>The Goodland protection area has a few active, large farms. There are smaller farms and hobby farms throughout. There are old farmsteads that are not being actively farmed, but are residences.</p> <p>Seasonal recreational homes near the lakes And Hunting cabins interspersed.</p> <p>A cluster of homes within the community of Goodland. Full time residential homes through the area---an increase in population throughout the Goodland Protection Area. Some of the homes and cabins have limited access and limited defensible space. This area has 197 households with a population of 520</p>	
6. Businesses: Numbers of businesses and economic constraints	<ul style="list-style-type: none"> -Fred's Meats and bulk fuel -Two construction companies (excavators & roadwork) -Cottage based businesses -Auto sales, Hardwood Furniture, Service & Repair (heating and air conditioning) -Post Office 	
7. Jurisdiction: Defines structural and wildland fire protection responsibilities for the WUI community	<ul style="list-style-type: none"> -Township of Goodland -Mutual aid agreements with the Itasca Chiefs Association. -Goodland provides to the Jacobson area through mutual aid agreement 	
8. Infrastructure risk: Defines infrastructure risks within the WUI community	<ul style="list-style-type: none"> -Main power transmission lines -Concerned about heavy trucking on Hwy. 65 with hazardous materials -Recreational trails -Public access -Potential fires with water craft -Bulk tanks propane and fuel oil -Lightning Fires 	
9. Community values: Important values at risk within the WUI community	<ul style="list-style-type: none"> -Churches -Community Center -Fire Hall -Baseball Park -Beach area -Recreational trails -Power parachute clubs 	
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection.	<ul style="list-style-type: none"> -500 gpm with 600 gallon water capacity with foam capability -3500 gallon tender with 600 gallon pumper on the side -brush rig with 250 gallon water tank with 120 gpm -rescue rig -jaws of life -snowmobile for trail rescues & rescue sled -Four wheeler for trail rescues -Ventilation fan -SCBA (twenty years old) -Response time is good with 4 minutes to 20 minutes to the outlying areas. 	

Name: Goodland RFD T.J. Russell January 26,2006		Location:
Priority:	County Funding:	
11. Other: Any concerns not captured in previous categories.	72 Square mile protection area covering two townships	
12. Fire Department Needs: List of any outstanding fire department needs	<ul style="list-style-type: none"> -New Cascade system -New SCBA -Recruitment and Retention -Wild land PPE -dry hydrant (swan lake and beauty lake) -new water tender 	
13. Firewise Information: Program information about assessment need, completion and mitigation measures.	<ul style="list-style-type: none"> -Participate in fire prevention activities (parades), community appreciation days, smoke detection. - There is no wildland fire education at this time. 	
14. Fuels: Describes the fuels components found in this community.	<ul style="list-style-type: none"> Logging slash and debris Urban interface hazards with area farms Large areas of lowland marsh grass Areas of upland conifers and areas of scattered upland conifers Areas of accumulated standing dead woody fuels (balsam, aspen). Grass farm fields and pasture lands Propane and bulk fuel storage 	
15. Fire Regime/Condition Class: Describes the variability of fuels from the historic range.	<ul style="list-style-type: none"> Historic Fire Regime V Current Fire Regime V Condition Class 2 /r 3 	
16. Vegetation Treatments: Provides ideas for localized (community) hazardous fuel treatments.	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning, -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -mowing lawns around structures -weed control -Hazardous Tree removal 	

Name: Grand Rapids FD Dale Rosier December 1, 2005		Location:
Priority:	County Funding:	
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	<ul style="list-style-type: none"> -US Hwy 2, US 169, Hwy 38 (National Scenic Biway) primary arteries -Several paved secondary roads -Gravel roads that pose spring break up challenges -Areas of poor access/egress (Suomi, Shingle Mill area) -Mine pit areas -Gated access (mine pits, private property) -Railroads running parallel to Hwy 2 -Water challenges: Mississippi River, Prairie River, Pokegama Lake Causeway, Co. RD 63 Bridge -Trails: Snowmobile, ATV trails, Mesabi Bike trails 25-30 minute response time to north end of protection area 	
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features.	<ul style="list-style-type: none"> Varies from flat to gently rolling. Areas of steep, rocky terrain (mine pit) Forested, agricultural fields, shrub swamps, grassy bogs Lakes, rivers and streams, ponds 	
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty	<ul style="list-style-type: none"> Open grassy fields, areas of blowdown/dead fall Pine plantations Logging slash and debris **Tremendous amount of wildland/urban interface (90%) 	
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time	<ul style="list-style-type: none"> Approximately 25-30 wildland fires/year Large Historic Fires: 1970 Blackberry Fire (1,000 acres) and Mothers Day Fires 1992 	
5. Homes: Location and density of homes in a Wildland Urban Interface (WUI) community area.	<ul style="list-style-type: none"> 18,000 permanent residents in 272 square mile protection area 25,000-35,000 seasonal residents Grand Rapids is a regional hub, with several outlying communities (Coleraine, bordering Cohasset, unorganized 54-26W. and 57-26W., 58-26 W., Blackberry, Harris Twp, Splithand, Arbo, LaPrairie, Wabana, Trout Lake, Grand Rapids Twp, and summer home associations) Cabins to Castles 	
6. Businesses: Numbers of businesses and economic constraints	<ul style="list-style-type: none"> -Forest Industry Hub: Ainsworth, UPM-Blandin Paper, Little Bear Lodges, -Industrial Park -Airport -Retail business area -Recreational area/resorts, golf courses, bike trail -Cottage Industry -ICC College -Forest History Center -Medical Campus -NCROC -Government Services, County Seat -Gunn Club, -MDHA/MSSEC -Heavy Industrial business 	

Name: Grand Rapids FD Dale Rosier December 1, 2005		Location:
Priority:	County Funding:	
7. Jurisdiction: Defines structural and wildland fire protection responsibilities for the WUI community	<ul style="list-style-type: none"> -City of Grand Rapids -Township Service Contracts -Mutual Aid with County chief Association, DNR, USFS 	
8. Infrastructure risk: Defines infrastructure risks within the WUI community	<ul style="list-style-type: none"> -Schools -Crude Oil Pipeline (Enbridge) -Natural Gas Pipelines (Aquila, Great Lake Gas), -gas storage facilities (Northwest, FERRELL, Norbon, Figgins) -Heavy Power line and local distribution lines (Grand Rapids Energy, Great River Energy) -Electrical substations, -water treatment and waste water treatment sites, -Wood Manufacturing mills, -Railroads, Bridges, -Roads, -Airport, -Trails, -Courthouse (law enforcement center dispatch, emergency operation center), -MIFC (Region 9 Fire Cache), - DNR regional office, -US Forest Service North Central Experiment Station -dams (Blandin) 	
9. Community values: Important values at risk within the WUI community	<ul style="list-style-type: none"> -Schools -Churches -Hospitals -Public Safety Services -Golf Courses -Community Centers -Resorts -Library -Tourist Attractions (Judy Garland, Central School, Forest History Center, Scenic -Biway Kiosk) -Township Offices -City Hall & facilities (IRA, Civic Center) -Parks -Inner city trail system -fairgrounds -Joint public utilities and pubic works facility -Laurentian Divide Wayside rest -Suomi Hills Recreation Area -Public lands: Chippewa National Forest, State and County Lands 	

Name: Grand Rapids FD Dale Rosier December 1, 2005		Location:
Priority:		County Funding:
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection	<ul style="list-style-type: none"> -3- class A pumpers (two 1000 gal, one-3000gal) with 1000 gpm pumps with foam -2100 gal water tender -100 aerial tower ladder truck -Mini pumper for high risk cabin areas with limited access 300 gal tank with 300gpm pump (type 4 engine). -Heavy rescue with extrication tools, Water Rescue equipment, confined space rescue equipment, mobile air trailer for airpacks -First response vehicle -Brush truck with slip on unit and 300 gal tank (type 6) -Air crash rescue ½ city ½ county owned with 1500 gallons of water with foam capability and dry chemical capabilities stationed at airport -Chemical assessment team (state contract) -River defense trailer (containment booms) at public works -Water tank 10,000 underground at Grand village nursing home -Water supply points at Harris twp site and Wabana twp. site 	
11. Other: Any concerns not captured in previous categories.	<p>Grand Rapids has a Very large protection area 40 miles long x 18 miles wide. Response time 4 to 25 minutes for outlying areas 272 square miles</p>	
12. Fire Department Needs List of any outstanding fire department needs:	<ul style="list-style-type: none"> -Staff Recruitment and Retention -Dry hydrants -Facility storage space (south side fire hall proposed) -Full time Fire Inspector -COMMUNICATION INFRASTRUCTURE AND EQUIPMENT UPGRADE TO 800 MGHZ. (COUNTY WIDE-please note) 	
13. Firewise Information: Program information about assessment need, completion and mitigation measures.	<p>Fire Prevention Program:</p> <ul style="list-style-type: none"> -Juvenile fire setters program -Fire prevention education program Preschool- adult -Fire prevention open house -Community Awareness (county fair, Jaycee home show, Blandin Foundations Children First Fair etc) -Fire Inspection program (limited to ¼ time) -Fire prevention education smoke safety trailer (FEMA grant) -Training live burn trailer 	
14. Fuels: Describes the fuels components found in this community.	<ul style="list-style-type: none"> -Grass swamps -Grass Fields -Pine plantations, heavy undergrowth and areas with ladder fuels, young plantations with low lying limbs -Forests -Hardwood leaf litter -Homes and structures in interface -Blowdown/bug kill areas -Areas overgrown, decadent -Slashing logging areas -Mixed Conifers and Hardwoods -Peatlands 	
15. Fire Regime/Condition Class: Describes the variability of fuels from the historic range.	<p>Historic Fire Regime V Current Fire Regime V Condition Class 2/3</p>	

Name: Grand Rapids FD Dale Rosier December 1, 2005		Location:
Priority:	County Funding:	
16. Vegetation Treatments: Provides ideas for localized (community) hazardous fuel treatments.	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning, -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -mowing lawns around structures -Tree removal -weed control 	

Name: Hill City RFD William Nelson December 5, 2005		Location:
Priority:	County Funding:	
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	<ul style="list-style-type: none"> -Hwy 169 and Hwy 200 are major arteries providing access through this protection area. -A network of secondary Roads (gravel and black top roads). -Forest logging access roads (some gated) servicing wooded area. -Snowmobile and ATV trails through the area. -93 square miles within Itasca County 	
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features.	<ul style="list-style-type: none"> -Primarily forested, a few rural farm sites -A level landscape with areas of rolling terrain (Shingle mill), primarily high ground with a few areas of lowland/organic soils -A few lakes (Splithand, Cowhorn) and small streams 	
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty	<ul style="list-style-type: none"> -Logging and slash debris -Hardwood leaf litter -Grassy fine fuel area -Lowland grass areas (Hennesey Lake) -Upland conifer plantations -Rural Urban Interface (Splithand lake) and in Spang area 	
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time.	Low wildland fire occurrence with 1/year.	

Name: Hill City RFD William Nelson December 5, 2005		Location:
Priority:	County Funding:	
5. Homes: Location and density of homes in a Wildland Urban Interface (WUI) community area.	Homes are clustered along highway corridors, and lakes Homes and Seasonal residences found along the Spang Road and secluded areas in Spang Township, scattered along County Road 67 and near Splithand lake area (townhouses)	
6. Businesses: Numbers of businesses and economic constraints	One bar on Splithand Lake and resorts Private sawmills dispersed through the area.	
7. Jurisdiction: Defines structural and wildland fire protection responsibilities for the WUI community	-City of Hill City -Spang and Wildwood townships are contracted annually. -Aitkin County Chief Association & affiliated with the Itasca County Chiefs Association. -Mutual Aid from Itasca Chief Association (Grand Rapids), DNR Aitkin County is the primary dispatch. Itasca County relays calls to Aitkin County Dispatch.	
8. Infrastructure risk: Defines infrastructure risks within the WUI community	-Major powerline running through east side of Wildwood township on the east side of Splithand Lake. Local distribution lines Transportation system poses threat to area and recreational trails	
9. Community values: Important values at risk within the WUI community	-Spang and Wildwood Town halls -One Church -Residential area along Splithand lake and Spang roads	
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection.	-One- one thousand gallon tank with 1000 gpm pump -One- 1000 gallon with 1250 gpm pump with foam injector -1800 tanker (replaced in 2006 with 3000 gallon tank & 1000gal pump) -type 6 Grass rig with 250 gallon tank with 250 gpm pump with portable foam unit -portable floating pumps -rescue sled -Extrication equipment, hand tools , jaws of life, air bags for lifting	
11. Other: Any concerns not captured in previous categories.	Total protection area is 286 square miles with 93 square miles within Itasca County. Average response time from fire hall to the Wildwood is 15- 20 minutes and 6 – 15 minutes response to the Spang area.	
12. Fire Department Needs: List of any outstanding fire department needs	-Communication improvements -foam -dry hydrant in wildwood township -Recruitment and Retention -Need for new fire hall facility (space)!	
13. Firewise Information: Program information about assessment need, completion and mitigation measures.	-Fire prevention in October at fire hall with community, preschool, Hill City School -Smoke detectors installation -Fire Extinguishers -Second floor ladders for homes with children without egress	
14. Fuels: Describes the fuels components found in this community.	Logging and slash debris Hardwood leaf litter Grassy fine fuel area Lowland grass areas (Hennesey Lake) Upland conifer plantations Rural Urban Interface (Splithand lake) and in Spang area	

Name: Hill City RFD William Nelson December 5, 2005		Location:
Priority:		County Funding:
15. Fire Regime/Condition Class: Describes the variability of fuels from the historic range.	Historic Fire Regime V Current Fire Regime V Condition Class 2/3	
16. Vegetation Treatments: Provides ideas for localized (community) hazardous fuel treatments.	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning, -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -mowing lawns around structures -Tree removal -weed control 	

Name: Keewatin Fire Rescue Dept. Jeff Graves February 1, 2006		Location:
Priority:		County Funding:
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	<p>Keewatin borders St. Louis County Hwy. 169 is in the southern portion of the Keewatin protection area.</p> <ul style="list-style-type: none"> -Access from the east side from St. Louis county via Hwy 169 County Road 182. -County Road 571 on the boundary of Keewatin and St. Louis County. -Railroads: an active railroad runs north of the school and another system runs through town, through Kelly Lake and on to Bovey. -A network of city streets servicing the community. -Restricted, gated access north of Keewatin servicing the mining area-pipeline coming from mining area running down the east side of the community. -The Mesabi Bike Trail (Old Hwy 169) leads to the O'Brien reservoir -Population of Keewatin 1118 and the size of the protection area is 2.45 square miles. 	
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features.	<ul style="list-style-type: none"> -Mine dumps located north of town have steep terrain. -Mining pits full of water (Welcome Lake and Long year Lake) -Level topography within the community. 	

Name: Keewatin Fire Rescue Dept. Jeff Graves February 1, 2006		Location:
Priority:	County Funding:	
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty	<ul style="list-style-type: none"> -Pine and popple and birch growing within the community and in outlying areas. -Light grass grown on the tailings, large field on the east end of town -Lowland grass areas 	
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time.	The Keewatin RFD responds to 10-15 wildfires each year-and generally occur in the springtime.	
5. Homes: Location and density of homes in a Wildland Urban Interface (WUI) community area	<p>Keewatin's population is 1118</p> <p>This community has residents with individual homes, a cluster of homes are found south of town on county road 571.</p> <p>Keewatin Apartment Complex (2 buildings) and another apartment is south of the fire hall.</p> <ul style="list-style-type: none"> -mobile home trailer park 	
6. Businesses: Numbers of businesses and economic constraints	<ul style="list-style-type: none"> 2-Auto repair shops -Body shop -race car shop -gas stations -plumbing -bars -ATT communications interchange station -bank -storage facility (mini storage, old longyear drilling building) -excavating equipment business -restaurant -manufacturing (helicopter), -plastic manufacturing for tackle tamer. -Keewatin Taconite -Boat & motor repair -Laundry mat -cottage based business (daycare, taxidermy) 	
7. Jurisdiction: Defines structural and wildland fire protection responsibilities for the WUI community	<p>The Keewatin Fire Rescue Dept. services the community of Keewatin</p> <ul style="list-style-type: none"> -This department has mutual aid agreements with Itasca County Chiefs Association and Hibbing Fire Dept. -contract with Keewatin Taconite which has 46 square miles of land with several structures and big equipment: shovel, drill, trucks, tire piles. This is a gated, restricted access area. As first responders this department is called for all emergencies. -An area south of Keewatin is in the Nashwauk RFD's jurisdiction-but is primarily serviced by the Keewatin Fire and Rescue Dept. 	

Name: Keewatin Fire Rescue Dept. Jeff Graves February 1, 2006		Location:
Priority:	County Funding:	
8. Infrastructure risk: Defines infrastructure risks within the WUI community	<ul style="list-style-type: none"> -City of Keewatin has transportation system, natural gas pipeline, local distribution and area distribution lines. -Large power transmission line. -Railroad -Large heavy industrial development using coal, heavy mining company equipment fuel storage facility, natural gas line -Hwy 169 transportation system potential hazardous materials -Mesabi bike trail -Auto salvage yard -Demolition landfill -Underground gas storage tanks 	
9. Community values: Important values at risk within the WUI community	<ul style="list-style-type: none"> -Elementary School K-6 -Churches -Library -Post office -City Hall -Fire Hall -Senior Citizen Center -Public Works -City Park -City Sewer -Race track (abandoned). 	
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection.	<ul style="list-style-type: none"> -One pumper with 1000 gallon tank with 1250 gpm pump -750 gallon pumper with 1000 gpm pump -Type 6 unit- brush rig with 250 gallons with pump -Rescue rig with generator -extrication equipment with lifting bags -ATV with trailer and sled -zodiak -ice rescue boat -SCBA –msa with their own cascade system 	
11. Other: Any concerns not captured in previous categories.	<p>Keewatin has a concentrated population center with a small rural population.</p> <p>Response time within the city limits is excellent with 4 minutes or less and roughly 4- 10 minutes within mining property.</p>	
12. Fire Department Needs: List of any outstanding fire department needs	<ul style="list-style-type: none"> -Recruitment and Retention -Wildland PPE -Wildland fire training -hand held radios -communication upgrade -in process of updating pumper -portable pump -fire product F500 for potential coal fire problems. -extension ladder (e.g. 35 foot) with equipment trailer 	
13. Firewise Information: Program information about assessment need, completion and mitigation measures.	<ul style="list-style-type: none"> -fire prevention activities: elementary school putting on program open house for community Smoke detector installation in 2003 Airbag safety information session through ABRA -no firewise information or programming at this time. 	

Name: Keewatin Fire Rescue Dept. Jeff Graves February 1, 2006		Location:
Priority:	County Funding:	
14. Fuels: Describes the fuels components found in this community.	Pine, popple and birch within the community Light grass grown on the tailings, large field on the east end of town Lowland grass areas Coal Natural Gas line Propane tanks Fuel oil Acetylene torches	
15. Fire Regime/Condition Class: Describes the variability of fuels from the historic range.	Historic Fire Regime V Current Fire Regime V Condition Class 2/3	
16. Vegetation Treatments: Provides ideas for localized hazardous fuels treatments.	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning, -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -mowing lawns around structures -Tree removal -weed control 	

Name: Marble RFD Jason Williams, Bob Staydohar December 15, 2005		Location:
Priority:	County Funding:	
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	<p>The Marble RFD covers the city of Marble and Greenway Township along with the community of Pengilly.</p> <ul style="list-style-type: none"> -Hwy. 169 is the primary artery along with Hwy 65 -County Road 12 Paved to Greenway town line road County Road 69 and 83 are paved -A system of gravel roads service the area -Snowball Lake Road access the lake community -Railroad -There are many recreational trails running through the area (Greenway, Mesabi bike trails, ATV trails). There are some areas of some gated access. 	

Name: Marble RFD Jason Williams, Bob Staydohar December 15, 2005 Priority:		Location: County Funding:
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features	-The terrain is varied with steep mine dump areas, rolling terrain, lowland areas Twin Lakes, Snowball, Oxide, Swan lake and Swan River with several smaller lakes found through the area. Greenway TWP. has scattered hobby farms	
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty	-Areas of mixed conifers, areas of aspen, open grass lands -logging slash and debris -A notable increase in WUI	
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time.	-Moderate wildland fire occurrence, dependant on fire weather. Roughly 10-12 fires per year.	
5. Homes: Location and density of homes in a Wildland Urban Interface (WUI) community area	City of Marble (pop. 683) Homes clustered within the city of Marble Greenway township has homes found throughout with many lake homes. Rural properties within this protection area are single family dwellings. Growing number of seasonal residents in the area.	
6. Businesses: Numbers of businesses and economic constraints	-City of Marble: convenience store, café, bar, bulk fuel oil/propane business, craft store, welding shop, and cottage home based businesses, community center, two churches -Pengilly: 2 convenience store, 2 bars Community center 2 churches Evergreen Industries (old school) seasonal wreaths -Butler Taconite research lab is located in Greenway Township	
7. Jurisdiction: Defines structural and wildland fire protection responsibilities for the WUI community	-Marble RFD is under jurisdiction of the city of Marble -There is a 3 year fire protection contract with Greenway Township -Mutual aid agreement with Itasca County Chiefs Association With DNR (Hibbing)	
8. Infrastructure risk: Defines infrastructure risks within the WUI community	-Transportation system: roads, railroads, recreational trails -Large Power transmission line in Pengilly and north of Marble (near riley lake hill) -Local electric distribution lines -Natural gas pipeline through Greenway township -Natural gas line from Calumet -Fuels from forest lands	
9. Community values: Important values at risk within the WUI community	Marble Elementary School, 2-Community Centers, Churches, Fire Hall, City Hall, Greenway Town hall, lakes and forest affording recreational opportunities, city park, Twin Lakes Beach, Ball Parks, Golf Course located in Pengilly	

Name: Marble RFD Jason Williams, Bob Staydohar December 15, 2005 Priority:		Location: County Funding:
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection.	<ul style="list-style-type: none"> -One Type 6 engine with 250 gallon tank -One 1000 gallon pumper with 1200 gpm with foam capabilities -One pumper tanker with 1000 gallon tank with 750 gpm -Rescue first responder vehicle -Two Rescue sleds -Six wet suits -Extrication unit: Jaws of Life -A pumping station on Swan Lake donated by Butler taconite -Hydrant water within city of Marble 	
11. Other: Any concerns not captured in previous categories.	<ul style="list-style-type: none"> -This protection area is approximately 32 Square miles. -Excellent response time within the city of Marble (2-3 minutes) and a 7 minute response time to outlying areas. 	
12. Fire Department Needs: List of any outstanding fire department needs	<ul style="list-style-type: none"> -Wildland Fire PPE -Snowmobile -ATV four wheeler with water tank -replacement of 1983 tanker -dry hydrant -Fire Hall is too small, built in 1982 and no longer meets the needs of the equipment. -Upgrade Communications systems -New cascade system with compressor to refill SCBA -Recruitment and Retention of Staff 	
13. Firewise Information: Program information about assessment need, completion and mitigation measures.	<ul style="list-style-type: none"> Fire prevention week with local school Participation in area parades There is no wildland fire protection outreach within this protection area at this time. 	
14. Fuels: Describes the fuels components found in this community	<ul style="list-style-type: none"> -Areas of mixed conifers, areas of aspen, open grass lands, -logging slash and debris, -Increase in WUI -Transportation system: roads, railroads, recreational trails -Large Power transmission line in Pengilly and north of Marble (riley lake hill) -Local distribution line -Natural gas pipeline through Greenway township -Natural gas line from Calumet 	
15. Fire Regime/Condition Class: Describes the variability of fuels from the historic range.	<ul style="list-style-type: none"> Historic Fire Regime V Current Fire Regime V Condition Class 2/3 	

Name: Marble RFD Jason Williams, Bob Staydohar December 15, 2005		Location:
Priority:	County Funding:	
16. Vegetation Treatments: Provides ideas for localized hazardous fuels treatments.	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning, -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -mowing lawns around structures -Hazard Tree removal 	

Name: Nashwauk RFD John Calaguire December 15, 2005		Location:
Priority:	County Funding:	
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	<ul style="list-style-type: none"> -Two State Hwys 169 and 65 are the principal arteries - Paved County Road system including Co. Rd. 58, Co. Rd. 56, Co. Rd. 8, Co. Rd. 55, Co. Rd. 12 and Co. Rd. 339 -Secondary gravel roads network throughout the area (township & county & serving unorganized townships) -Recreational trails (snowmobile trails, Mesabi recreational trail, Forest Roads, (primarily owned by Itasca County) -Railroad paralleling Hwy 169 -Mining roads are gated with dirt berms making them inaccessible -city has a minimum maintenance road Accessibility into rural homes creates a challenge for equipment. Keewatin has recently annexed a small area south of hwy 169 	
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features.	<ul style="list-style-type: none"> -City of Nashwauk has mine dumps surrounding community with steep terrain -Mine pits (lakes) -Wooded areas are found north of Nashwauk with level, rolling to steep. -Lakes & streams (Buck Lake, Swan Lake have year round residents) -Prairie River further north is a forested area. 	
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty	<ul style="list-style-type: none"> -Nashwauk has open grass areas along highways -Logging slash & debris -Upland Conifers near Crooked Lake -On Hwy 65 near Buck Lake has areas of upland mixed conifers -This protection area has a lot of aspen, maple and birch -Area with scattered farms -Powerlines have created hazards throughout the area this RFD has had a couple of recent fires. -Increase in Rural homes 	

Name: Nashwauk RFD John Calaguire December 15, 2005		Location:
Priority:	County Funding:	
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time.	-This area has 8-16 grass fires each year-low to moderate occurrence.	
5. Homes: Location and density of homes in a Wildland Urban Interface (WUI) community area.	Nashwauk population 980 And the total population within the protection area is 3000 -Lone Pine/Swan lake has a cluster of homes -homes are found along Hwy 65 -Buck Lake has a cluster of homes -Rural properties are sparse-with some active beef operations - A portion of Crooked Lake has homes in the Nashwauk protection area.	
6. Businesses: Numbers of businesses and economic constraints	Nashwauk community: retail businesses, gas stations, clinic, logging businesses, school and four churches, ice arena, cottage based businesses Note: currently there is no active mining in this service area,	
7. Jurisdiction: Defines structural and wildland fire protection responsibilities for the WUI community	-Under jurisdiction of the city of Nashwauk and Nashwauk Township -fire contract with Lone Pine township and unorganized townships -Mutual Aid agreements with Itasca County chiefs association, the City of Hibbing AND DNR (Hibbing)	
8. Infrastructure risk: Defines infrastructure risks within the WUI community	-Forest fuels -Major powerlines (have recently caused several problems) and local distribution lines -Substation located south of Nashwauk and within city -Railroads -Recreational trails -Natural gas line located south of town -Increase in WUI	
9. Community values: Defines infrastructure risks within the WUI community	-School -Clinic -Sporting complex -Playground area -RV park -O'Brien reservoir public access -Campground on Swan Lake - Recreational trails: Taconite snowmobile trail, Mesabi bike trail, -Cemetery -Mining Scenic Overlook -Churches -Small businesses -Tourism and recreational opportunities -Lakes -Fire Dept. -Public Safety -Water treatment plant -Fire hydrants within city boundaries	

Name: Nashwauk RFD John Calaguire December 15, 2005		Location:
Priority:		County Funding:
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection.	<ul style="list-style-type: none"> -Two 1250 pumpers with one thousand tank -One tanker with 2000 gallon tank with wildland capabilities -One tanker with 2800 gallons -Two brush trucks with pumps -Rescue truck -4 wheeler (for wildland fire, structure fires and first responder) -snowmobile and rescue sled -extrications equipment : Jaws of Life, high angle rescue ropes -Scuba dive team -Cold water rescue equipment -gas detection equipment for carbon monoxide -thermal imaging camera -two pumping stations located in lone pine and Nashwauk township -portable pump for drafting -Nashwauk has its own EMT with city ambulance housed at fire hall -All fire personnel are first responders but ambulance provides service. 	
11. Other: Any concerns not captured in previous categories.	<p>This is a large protection</p> <p>Furthest response time is 18 minutes servicing the buck lake area.</p> <p>Nashwauk RFD has 258 square miles</p>	
12. Fire Department Needs: List of any outstanding fire department needs	<ul style="list-style-type: none"> -equipping 4 wheeler with tank and pump -turn out gear bunker gear -cleaning equipment for turn out gear -wildland fire PPE -new cold water rescue suits -communication upgrades -Recruitment and Retention -Restriction on volunteers for availability (unable to take time away from work) -Training requirements and demands on volunteers (personal time) poses challenges for RFDs. Lead for Homeland security 	
13. Firewise Information: Program information about assessment need, completion and mitigation measures.	<ul style="list-style-type: none"> -Fire prevention with Keewatin and preschool education outreach -Senior citizen fire safety education and tornado warning. -Fire evacuation at high school. -No wildland fire education services provided 	
14. Fuels: Describes the fuels components found in this community	<ul style="list-style-type: none"> -Nashwauk has open grass areas along highways -Logging slash & debris -Upland Conifers near Crooked Lake -On Hwy 65 near Buck Lake has areas of upland mixed conifers -This area has a lot of aspen, maple and birch -Area with scattered farms -Powerlines have created a fuel hazard throughout the area. -Increase in Rural homes 	
15. Fire Regime/Condition Class: Describes the variability of fuels from the historic range.	<p>Historic Fire Regime V</p> <p>Current Fire Regime V</p> <p>Condition Class 2/3</p>	

Name: Nashwauk RFD John Calaguire December 15, 2005		Location:
Priority:	County Funding:	
16. Vegetation Treatments: Provides ideas for localized hazardous fuels treatments.	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning, -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -mowing lawns around structures -Hazard Tree removal -weed control 	

Name: Northome Fire Dept. Wayne Skoe February 27, 2006		Location:
Priority:	County Funding:	
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	<p>Northome provides protection to 3 townships in northern Itasca County: Nore, Ardenhurst and Grattan Twp.</p> <p>-NORE's Transportation System: State Hwy 71 and County Road 132 (gravel) county road 30 running east and west past the northern portion of the twp. Township Roads and logging roads</p> <p>There is a designated ATV trail running from Kooch county line to Beltrami</p> <p>-ARDENHURST: State Hwy 46 bisecting the township. County Road 24 is paved and adjoins the northeast side of Island Lake. County Road 174 access the north shore of Island Lake (abundant lake homes) is gravel. Co Rd 159 provides access to Moose Lake. Itasca County 31 (provides east-west access) runs from state hwy 46 continuing east through Grattan into Pomroy leading south to Wirt.</p> <p>GRATTAN: County Road 26 providing access from Kooch county-leads to Dora Lake</p> <p>This area has USFS roads network throughout. Snowmobile trails run throughout.</p> <p>Logging trails are found throughout this area.</p> <p>Gated access poses problems.</p> <p>Spring break up challenges.</p>	
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features.	<p>Primarily level topography throughout most of the protection area (80%). Grattan twp. and eastern Ardenhurst has rolling terrain.</p> <p>Lakes and streams intermingled with lowland and wetlands.</p>	

Name: Northome Fire Dept. Wayne Skoe February 27, 2006 Priority:		Location: County Funding:
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty	Fine grass fuels, lowland grasses Conifer Plantations (dense with ladder fuels). Peatlands Balsam Fir Old Homesteads with matted grass. Old sawmill site	
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time.	Approximately 1-5 wildland fires each year.	
5. Homes: Location and density of homes in a Wildland Urban Interface (WUI) community area	Ardenhurst: Island Lake has a cluster of homes along the lake roughly 100 homes. Nore has roughly 20 permanent homes with one active farm (George Bowman). All of the old farms have converted to cabins. Grattan has 30 homes and seasonal cabins	
6. Businesses: Numbers of businesses and economic constraints	Resorts and one supper club (dockside) on Island Lake. Loggers Seasonal businesses (wreaths) Sawmill site	
7. Jurisdiction: Numbers of businesses and economic constraints	The three Itasca townships contract with the department through the city of Northome in Kooch County. Mutual Aid agreements with: DNR Northome and Effie USFS Blackduck, Itasca County chiefs Association.	
8. Infrastructure risk: Defines infrastructure risks within the WUI community	Local transmission lines 'Unknown' cargo on the highway. Logging fuels Recreational trails	
9. Community values: Important values at risk within the WUI community	2 township halls (Grattan's new center & Ardenhurst) Public land and lakes Campgrounds 'Lost 40' tourist attraction	
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection.	2- pumpers with 750 gallon with 1000 gpm 2-tankers: 2500 and 1800 Extrication equipments 'Jaws of Life' Brush rig -shared equipment with first responders -6 wheel ATV SCBA cascade system	
11. Other: Any concerns not captured in previous categories.	Three townships are 2 miles from Northome, Koochiching County. Excellent response time from 5 minutes near Island Lake, and outlying areas Servicing outlying areas on gravel roads may require up to 30 minutes.	

Name: Northome Fire Dept. Wayne Skoe February 27, 2006		Location:
Priority:	County Funding:	
12. Fire Department Needs: List of any outstanding fire department needs	Update pumpers Replace slip on Recruitment and Retention Improved communications for staff and additional radios Training barriers Communication Problems--Northome can't communicate with USFS Blackduck and there are problems with Itasca county. Sometimes there are dispatching problems between two counties Kooch/Itasca Update foam capabilities	
13. Firewise Information: Program information about assessment need, completion and mitigation measures	Fire prevention programs community and schools. Smoke detectors. No wildland fire educational outreach at this time.	
14. Fuels: Describes the fuels components found in this community.	Fine grass fuels, lowland grasses Conifer Plantations (dense with ladder fuels). Peatlands Balsam Fir Old Homesteads with matted grass. Old sawmill site	
15. Fire Regime/Condition Class: Describes the variability of fuels from the historic range.	Historic Fire Regime IV Current Fire Regime IV Condition class 2 & 3	
16. Vegetation Treatments: Provides ideas for localized hazardous fuels treatments.	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning, -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -mowing lawns around structures -Hazard Tree removal -weed control 	

Name: Squaw Lake Fire Dept. Tom Kallio February 27, 2006 Priority:	Location: County Funding:
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	-Hwy 46 provides primary access -Paved County Roads include: CO RD 4 (runs east out of Squaw Lake to Max), Co. Rd. 34, Co. RD 32 -Gravel County Road system found throughout, Co. Rd. 141, 32 & 33, 156 etc. Some gravel roads offer seasonal challenges during spring break up. -USFS network of roads -Snowmobile Trails: - Northome to Gosh Dam along Hwy 46 - Squaw lake to Marcell along County Road 4. -Cut Foot Horse Camp has a network of recreational trails. -Logging roads provide seasonal access. -Logging roads and secondary roads provide access to seasonal/recreational homes.
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features	Level topography with a lot of lakes and streams. Lowland areas.
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty	Areas of upland pines in southern and eastern portion of the protection area. Blowdown on USFS lands. Lake areas have lowland grass/meadows Areas of residual slash piles Logging slash Seasonal and permanent homes intermixed in upland fuel types. Upland conifer plantations.
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time.	Approximately 5 grass fires each year. Squaw Lake Fire Dept. conducts prescribed burns for farmer's fields in early spring.
5. Homes: Location and density of homes in a Wildland Urban Interface (WUI) community area	Squaw Lake has a population of 99 permanent residents and the outlying area has a population of 180 permanent residents. Most of the population elderly/retired. The population elevates during the summer with seasonal residents and tourists. Sand Lake has a cluster of seasonal residents. Lake homes and hunting camps found throughout Squaw Lake protection area, Farms are scattered throughout the area. The Leech Lake Reservation has homes in this protection area.

Name: Squaw Lake Fire Dept. Tom Kallio February 27, 2006 Priority:		Location: County Funding:
6. Businesses: Numbers of businesses and economic constraints	Squaw Lake has three bars and supper clubs Gas station /convenience store Repair shop Resorts (15) Laundry mat Motel Loggers Cottage based business (wreath makers, silver smith) Construction businesses Apartment building Bar in Alvwood Campgrounds	
7. Jurisdiction: Defines structural and wildland fire protection responsibilities for the WUI community	Mutual Aid agreements through the Itasca County Chiefs Association. Also agreements with Blackduck FD Leech Lake Reservation (tribal police), Itasca County Sheriffs Office, DNR (Deer River, Northome, Blackduck) USFS Chippewa National Forest Blackduck and Deer River. City of Squaw Lake provides contracts along with township/unorganized twp. contracts.	
8. Infrastructure risk: Defines infrastructure risks within the WUI community	-Substation -Bulk Propane tank by Max -Underground oil tank at school -Above ground 1,000 gallon tank at County Garage -high voltage powerlines -'Cargo' traveling along State Hwy 46 -Recreational trails -Tourists -Elderly residents & tourists -Beavers dropping trees on powerlines (3 times) -5 underground tanks at gas station holding 10000 gallons -Recreational trails mixing with auto traffic -Burning Barrels -Outdoor stoves -Chimney fires	
9. Community values: Important values at risk within the WUI community	-Eagle view school -5 churches in the area -Campgrounds (USFS, State) -Public land -4 community centers (Alvwood, Leech Lake Tribal Community Center, Squaw Lake, Sand Lake). -post office -Fire Hall -abundant recreational opportunities.	
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection.	1: one thousand gallon pumper 1: 2500 gallon pumper/tanker with no foam capabilities 1: 750 gallon tanker Brush rig with a 200 gallon tank Sheriff rescue sled and snowmobile sled. Snowmobile Compressor for SCBA tank (FEMA grant) Two dry hydrants (one near Alvwood and Third River twp). No extrication equipment	

Name: Squaw Lake Fire Dept. Tom Kallio February 27, 2006 Priority:		Location: County Funding:
11. Other: Any concerns not captured in previous categories.	Squaw Lake FD has 7 townships in their protection area. The Dept. was established in 1978 Excellent response time with 5 minutes Outlying areas response time may be 35 minutes. SAND LAKE: to service the east side of the lake, Squaw Lake FD has to travel south into Deer River protection area and drive around the lake.	
12. Fire Department Needs: List of any outstanding fire department needs.	Recruitment and Retention Training: funding accessibility Extrication Equipment ATVs for remote service Pumpers and tankers need updating Turn out equipment is 25 + years old Communication: paging system does not reach members during summer because of leaf out. More communication equipment More interaction and communication with USFS and DNR to improve service and responses. Need for foam capability Need for additional water capacity. Third river, Alvwood, Sand lake have problems refilling <ul style="list-style-type: none">• <i>High public land does not support adequate tax base to support rural fire dept.</i>• <i>This RFD has low per capita income</i>	
13 Firewise Information: Program information about assessment need, completion and mitigation measures.	Fire prevention programs community and schools. Smoke detectors programs. No wildland fire educational outreach at this time.	
14. Fuels: Describes the fuels components found in this community	Areas of upland pines in southern and eastern portion of the protection area. Blowdown on USFS lands. Lake areas have lowland grass/meadows Areas of residual slash piles Logging slash Seasonal and permanent homes intermixed in upland fuel types. Upland conifer plantations.	
15. Fire Regime/Condition Class: Describes the variability of fuels from the historic range.	Historic Fire Regime IV Current Fire Regime V Condition Class 3	

Name: Squaw Lake Fire Dept. Tom Kallio February 27, 2006		Location:
Priority:	County Funding:	
16. Vegetation Treatments: Provides ideas for localized hazardous fuels treatments	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning, -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -mowing lawns around structures -Hazard Tree removal 	

Name: Taconite Fire Dept. Don Hanson November 15, 2005		Location:
Priority:	County Funding:	
1. Access: Condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	<ul style="list-style-type: none"> -US Hwy 169, and County Highway 7 service provides year round access -County Road 15 servicing the community of Taconite -County Road 59 & 57 accesses the Lawrence Lake Area. -Poor access on Forest Roads-Classification D. -There are seasonal lake shore areas and permanent residences with dead end roads and limited difficult areas. -Mining roads are gated, RFD has keys. 	
2. Local Topography: Local configuration of the earth's surface, including its relief and the position of its natural and man made features	<ul style="list-style-type: none"> -Taconite is characterized by level to gently rolling -Steep slopes within mine areas. -Roughly 1/2 of Iron Range Township is mine dumps. 	
3. Fuel Hazards: A fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty	<p>Primarily light fuels consisting of upland grass that typically cause problems in the spring.</p> <p>Upland Conifers areas with homes near the south half - Lawrence Township and Iron Range Township have potential for crown fires (example Riley Lake Fire in 1977).</p>	
4. Fire Occurrence: The number of wildland fires started in a given area over a given period of time.	<p>Low occurrence with roughly 11 grass fires/year.</p>	

Name: Taconite Fire Dept. Don Hanson November 15, 2005		Location:
Priority:	County Funding:	
5. Homes: Location and density of homes in a Wildland Urban Interface (WUI) community area.	Iron Range Township has residential areas and seasonal properties scattered throughout. Poor access creates difficulty for fire trucks and emergency vehicles.	
6. Businesses: Numbers of businesses and economic constraints	-Lawrence Legion Club -Taconite Legion Club **FUTURE site of Excelsior Energy, coal gasification plant—which will impact the Taconite fire protection area.	
7. Jurisdiction: Defines structural and wildland fire protection responsibilities for the WUI community	Mutual Aid with: - Itasca County Chief Association (Bovey, Marble & Balsam, Grand Rapids, Coleraine, Calumet) -DNR-Forestry (Grand Rapids) -First responder & industrial training -EMTs	
8. Infrastructure risk: Defines infrastructure risks within the WUI community	-Senior housing and assisted living center. -Local powerlines for residential areas -Railroad cutting through the area that is not being utilized. -Logging slash/debris	
9. Community values: Important values at risk within the WUI community	-Senior housing & assisted living center -Community Center/City Hall -Pre- School center * Educate seasonal residents on wildland fire safety	
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection.	-Grass Rig -Tanker-1500 gallons -Two pumpers (one with high pressure) -Polaris ranger-personally owned -Polaris 6 wheeler –personally owned -4 wheelers-personally owned -Tanker housed in Iron Range Township -Main Fire Station in City of Taconite	
11. Other: Any concerns not captured in previous categories.	City of Taconite is the governing body With financial support from Iron Range Township	
12. Fire Department Needs: List of any outstanding fire department needs	-Taconite RFD needs a new water tender tanker -ATV's for emergencies and for remote fires -PPE for dual purposes- grass fires & structure fire	
13. Firewise Information: Program information about assessment need, completion and mitigation measures.	Fire prevention and protection day for elementary students Need to educate seasonal residents on wildland fires/fire laws Fire access for emergency vehicles & defensible space	
14. Fuels: Describes the fuels components found in this community.	-Upland grasses & weeds -Areas of upland conifers with rural homes interspersed. -Logging debris/slash	
15. Fire Regime / Condition Class: Describes the variability of fuels from the historic range	Historic Fire Regime V Current Fire Regime V Condition Class 2/3	

Name: Taconite Fire Dept. Don Hanson November 15, 2005		Location:
Priority:		County Funding:
16. Vegetation Treatments: Provides ideas for localized hazardous fuels treatments.	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazardous fuel reduction -biomass harvesting - pruning, -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -mowing lawns around structures -Hazard Tree removal -weed control 	

Name: Warba Fire Department Dave Carey March 8, 2006		Location: City of Warba
Priority:		County Funding:
1. Access: condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.	<p>Primary arteries include: US highway 2, State Hwy 65</p> <p>A network of blacktopped county roads: Co. Rd. 10, Co. Rd. 74, and Co. Rd. 425 along with a network of township gravel roads, some secondary roads, some of which are impassable in spring. The Warba protection area also has logging roads, snowmobile trails, winter trails. A Railroad parallels highway 2.</p> <p>Waterways include the Mississippi River, Swan River along with several lakes and small streams.</p>	
2. Local Topography: local configuration of earth's surface, including its relief and position of natural features.	Nearly level with gently rolling terrain in Feeley Township.	
3. Fuel Hazards: local configuration of earth's surface, including its relief and position of natural features.	Many areas of lowland grasses in heavy amounts, upland grasses, logging slash, hardwood leaf litter, areas of mixed hardwoods, and upland conifers, upland conifer plantations, lowland conifer types.	
4. Fire Occurrence: local configuration of earth's surface, including its relief and position of natural features.	Low, averages 2-5 per year	

Name: Warba Fire Department Dave Carey March 8, 2006 Priority:		Location: City of Warba County Funding:
5. Homes: local configuration of earth's surface, including its relief and position of natural features.	WUI 75% The Warba Fire Dept. covers the city of Warba (100 homes), three and one half townships, and one half unorganized township, with about 350 rural homes, some lake area homes, both seasonal and year around. Some seasonal hunting cabins are found in the area.	
6. Businesses: numbers of businesses and economic constraints	Approximately 25 businesses, convenience stores, town halls, restaurant, fuel, excavating contractors, retail stores, home business, hobby farms, Tire business, bars, motel, and campgrounds, logging business, etc.	
7. Jurisdiction: numbers of businesses and economic constraints	The jurisdiction, resides with the City of Warba, Townships of Feeley and Sago. This RFD contracts with Wawina twp., 53-24W and 55-23W. Mutual aid agreements with DNR Deer River/ Grand Rapids Mutual aid agreements with Jacobson and Floodwood. Mutual aid agreements with the Itasca Chiefs Association.	
8. Infrastructure risk: Defines infrastructure risks within the WUI community	Area business's, tire store, fuel, and restaurants, power transmission lines, local power distribution lines, substation, crude oil and natural gas pipeline corridors, transportation system, heavy truck traffic on US HWY. 2, transporting all kinds of products. Railroad. Towers (receiving dish).	
9. Community values: important values at risk within the community	Businesses, community center, Town halls, Fire Department, Charter School, County Garage, Post Office, Churches, parks, and campgrounds.	
10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection	One Class A pumper with 1000 gallons with 1000 gpm 2 water tenders, one is 2000 gallons and one is 2250 gallons 250 gallon grass rig, -One medical van. -New SCBA's are on the way through FEMA grant	
11. Other: concerns not captured in previous categories	Two dry hydrants located in Wawina and Swan River Excellent Response time. The community of Warba is centrally located for this protection area. Outlying areas (Feeley) are 13 miles away from fire hall. 3 minutes to 20 minutes response time. The Warba protection area is 170 square miles.	
12. Fire Department Needs: list of any outstanding fire department need	-Turnout Gear, -SCBA, tanks and masks, -new medical van -wildland fire PPE -new pumper by 2010 -fire hall needs new doors and paint...and eventual hall replacement. -ATV -Recruitment and Retention	
13. Firewise Information: program information about assessment needs, completion and mitigation measures	None other than Community Fire Prevention, public relations, parades etc.	

Name: Warba Fire Department Dave Carey March 8, 2006 Priority:		Location: City of Warba County Funding:
14. Fuels: fuels components	<ul style="list-style-type: none"> -Many areas of lowland grasses in heavy amounts -upland grasses -logging slash -hardwood leaf litter -areas of mixed hardwoods -upland conifers -lowland conifer types -Old fields -swamp grasses -pine areas with ladder and continuous fuels. -Pine plantations -WUI -Natural gas -crude oil pipelines found along Hwy. 2. -Tire store in Warba. -Truck stop in Swan River with fuel storage tanks. 	
15. Fire Regime/Condition Class: describes the variability of fuels from the historic range.	<ul style="list-style-type: none"> Historic Fire Regime III Current Fire Regime IV Condition Class 2/ 3 	
16. Vegetation Treatments: provides ideas for localized hazardous fuels treatments.	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazard fuel reduction -biomass -pruning -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -biomass harvesting -mowing lawns around structures -Tree removal -weed control Spray for Tansy, -local sewer pond weed maintenance for cattails. 	

VII. WILDFIRE RISK ASSESSMENT

1. Hazard and Risk

<p>Fire Frequency – How frequent fire occurs on the landscape based on past fire history.</p> <p>Vegetative Fuel Hazards – Includes living and dead vegetation materials. The amount of heat energy released curing a wildland fire is defined by the amount, arrangement, and rate of combustion of vegetative fuels.</p> <p>Crown Fire Potential – The potential for fires to advance from tree top to tree top more or less independent from the surface or ground fire.</p> <p>Fuel Model – A simulated fuel complex for which all the fuel descriptors required for the mathematical fire spread model have been specified.</p> <p>Rate of Spread – The relative activity of a fire in extending its horizontal dimensions, usually expressed in chains (66') per hour.</p> <p>Flame Length –</p> <p>Hazardous Fuels – Living or dead fuel component defined by kind, arrangement, volume, location or condition that forms a special threat of ignition or suppression difficulty.</p> <p>L/M/H - Low / Medium / High</p>

WUI Community	FIRE Frequency	FF Points	Veg. Type	Crown Fire Potential Y/N	CROWN FIRE POINTS	Fuel Model	Hazard Ros	Haz Ros Points	Hazard FL	Haz - ROS Points	Hazard Fuels	HAZ Fuels Points	Total Hazard Points
Balsam	L	1	Grass, Aspen, Upland Conifers	Y	3	9/10	H	5	H	5	Heavy	5	19
Bearville	L	1	Grass, Aspen, Upland Conifers	Y	3	9/10	H	5	H	5	Heavy	5	19
Bigfork	L	1	Grass, Aspen, Upland Conifers	Y	3	9/10	H	5	H	5	Heavy	5	19
Bovey	M	3	Grass, Aspen, Upland Conifers	Y	3	9/10	H	5	H	5	Heavy	5	21
Blackduck	L	1	Grass, Aspen, Upland Conifers	Y	3	9/10	H	5	H	5	Heavy	3	19
Calumet	M	3	Grass, Aspen, Upland Conifers	Y	3	9/10	H	5	H	5	Heavy	5	21
Cohasset	M	3	Grass, Aspen, Upland Conifers	Y	3	9/10	H	5	H	5	Heavy	5	21
Coleraine	L	1	Grass, Aspen, Upland Conifers	Y	3	9/10	H	5	H	5	Heavy	3	19
Deer River	M	3	Grass, Aspen, Upland Conifers	Y	3	9/10	H	5	H	5	Heavy	5	21
French	L	1	Upland Conifers	Y	3	10		5	H	5	Heavy	5	19
Goodland	L	1	Grass, Aspen, Northern Hardwoods, Upland Conifers	Y	3	8/9	M/H	4	H	5	Heavy	5	18
Grand Rapids	H	5	Upland Conifers, Aspen, Balsam and Grass	Y	3	9/10	H	5	H	5	Heavy	5	23
Hill City	L	1	Northern Hardwoods, Aspen, Balsam, Grass	Y	3	9/10	H	5	H	5	Heavy	5	19
Keewatin	M	3	Grass, Aspen, Mixed Wood	Y	3	9/10	H	5	H	5	Heavy	5	21

Hazard and Risk continued on page 84

WUI Community	FIRE Frequency FF Points		Veg. Type	Crown Fire Potential Y/N	CROWN FIRE POINTS	Fuel Model	Hazard Ros	Haz Ros Points	Hazard FL	Haz - ROS Points	Hazard Fuels	HAZ Fuels Points	Total Hazard Points
Marble	M	3	Upland Conifers, Aspen, Balsam, and Grass	Y	3	9/10	H	5	H	5	Heavy	5	21
Nashwauk	M	3	Upland Conifers, Aspen, Balsam, and Grass	Y	3	9/10	H	5	H	5	Heavy	5	21
Northome	L	1	Aspen, Balsam and Grass	Y	3	9/10	H	5	H	5	Heavy	5	19
Squaw Lake	L	1	Upland Conifers, Aspen, Balsam and Grass	Y	3	9/10	H	5	H	5	Heavy	5	19
Taconite	L	1	Upland Conifers, Aspen, Balsam and Grass	Y	3	9/10	H	5	H	5	Heavy	5	19
Warba/ Feeley/Sago	M	3	Upland Conifers, Aspen, Balsam and Grass	Y	3	9/10	H	5	H	5	Heavy	5	21

2. Values

Economics – Relating to the development, production, distribution and management of commodities, values or necessities.

Structure Density – The amount or quantity of structures within a given area or square mile.

Building Hazard – The probability of building igniting due to location, access, structural building materials, or vegetative surroundings.

Community Infrastructure – The basic facilities needed for a functioning community i.e. roads, power lines, water supply etc.

Land Ownership – The jurisdictional complexity of land ownerships.

Spiritual, Historical and Cultural Resources –

Ecosystem Values – Ecological values placed on an area, based on importance of watersheds, soils, plant and animal habitat, species, or vegetative composition.

L/M/H - Low / Medium / High

WUI Community	Economics	Economic Points	Structure Density	SD Points	Building Hazard	BH Points	Community Infrastructure	CI Points	Impacted Community	IC Points	Land Ownership	LO Points	Spiritual Cultural Historical Resource	SCHR Points	Ecosystem Values	ECO Points	VALUES PROTECTED	Values Points
Balsam	M	3	L	1	H	5	M	3	M	3	H	5	L	1	H	5	H	26
Bearville	L	1	L	1	M	3	L	1	L	1	M	3	L	1	H	5	M	16
Bigfork	M	3	M	3	H	5	H	5	H	5	H	5	M	3	H	5	H	34
Bovey	M	3	M	3	H	5	M	3	M	3	H	5	M	3	H	5	H	30
Blackduck	L	1	L	1	M	3	M	3	H	5	M	3	L	1	H	5	M	22
Calumet	M	3	H	5	H	5	M	5	H	5	H	5	M	3	H	5	H	36
Cohasset	H	5	H	5	H	5	H	5	H	5	H	5	M	3	H	5	H	38
Coleraine	M/H	4	M/H	4	H	5	H	5	H	5	H	5	H	5	H	5	H	38
Deer River	M	3	M	3	M	3	H	5	H	5	H	5	H	5	H	5	H	34
French	M	3	H	5	H	5	H	5	H	5	M	3	L	1	H	5	H	32
Goodland	M	3	M/L	2	M/L	2	M	3	H	5	H	5	M	3	H	5	M/H	28
Grand Rapids	H	5	H	5	H	5	H	5	H	5	H	5	M	3	H	5	H	38
Hill City	M	3	M	3	H	5	M	3	M	3	M	3	M	3	H	5	M/H	28
Keewatin	H	5	H	5	H	5	H	5	M/H	4	M	3	L	1	H	5	H	33
Marble	M	3	M	3	H	5	H	5	H	5	H	5	L	1	H	5	H	32
Nashwauk	M	3	M	3	H	5	H	5	H	5	H	5	L	1	H	5	H	32
Northome	M	3	M	3	M	3	M	3	H	5	H	5	H	5	H	5	H	32
Squaw Lake	M	3	M	3	M/H	4	M	3	H	5	H	5	H	5	H	5	H	33
Taconite	L	1	M	3	M	3	M	3	M	3	H	5	L	1	H	5	M	24
Warba/Seeley/Sago	M	3	M	3	M	3	H	5	M/H	4	H	5	L	1	H	5	M/H	29

3. Protection Capabilities

Interagency Partnerships – Positive working relationships with local and other land mgmt agencies.
Numbers or protection Resources – Number of resources available for fire suppression needs.
Access – Ability of emergency service vehicles to gain access to an area and ease of evacuation due to road class or condition.
Response Time – The time it takes an emergency vehicle to get from its station to the emergency.
Prevention Program – A Program designed to reduce wildfire ignitions through education, engineering and enforcement.
Initial Attack Success - The probability of success that initial resources dispatched will suppress the fire during the first 8 hours or burning period.
L/M/H - Low / Medium / High

WUI Community	Interagency Partnerships	IP Points	# of Protection Resources	PR Points	Access	Access Points	Response Time	RT Points	Prevention Program	PP Points	IA Success	IAR Points	PROTECTION CAPABILITIES SUMMARY	PC Points
Balsam	H	5	L/M	2	L	1	M	3	M	3	H	5	M	19
Bearville	H	5	M	3	M	3	M	3	L	1	H	5	M	20
Bigfork	H	5	L/M	2	L	1	M/L	2	M	3	H	5	M	18
Bovey	H	5	L/M	2	L	1	M	3	L	1	H	5	M	17
Blackduck	H	5	M	3	L	1	M/H	4	L	1	H	5	M	19
Calumet	H	5	L/M	2	H	5	H	3	L	1	H	5	H	21
Cohasset	H	5	M	3	L	1	H	5	M	3	H	5	M	22
Coleraine	H	5	L/M	2	L	1	H	5	M	3	H	5	M	21
Deer River	H	5	L/M	2	L	1	M	3	M	3	H	5	M	19
French	H	5	L/M	2	L	1	M	3	M	3	H	5	M	19
Goodland	H	5	L	1	L	1	M	3	L	1	H	5	M/L	16
Grand Rapids	H	5	M	3	L	1	M	3	M	3	H	5	M	20
Hill City	H	5	L/M	2	L	1	M	3	L	1	H	5	M	17
Keewatin	H	5	L	1	L	1	H	5	L	1	H	5	M/L	18
Marble	H	5	L/M	3	M	3	H	5	L	1	H	5	M	22
Nashwauk	H	5	L/M	2	L	1	H	5	L	1	H	5	M	19
Northome	M/H	4	L/M	2	L	1	M/L	2	L	1	H	5	M	15
Squaw Lake	M/H	4	L/M	2	L	1	M/L	2	L	1	H	5	M	15
Taconite	H	5	L	1	M	3	H	5	M	3	H	5	H	22
Warba/Seeley/Sago	H	5	L	1	H	5	L	1	L	1	M	3	M	16

4. Community Vulnerability Summary

This chart is the compilation of the point values for the wildfire risk assessment that includes hazard and risk, community values and protection capabilities.

Total Points Summary Values:

Low=1-19

Low/Moderate=20-38

Moderate= 39-57

High=58-76

Extreme=76-95

WUI Community	Summary Hazard RATING	Total Hazard Points	Values PROTECTED	Values Points	PROTECTION CAPABILITIES SUMMARY	PC Points	Summary RATING	Total Points
Balsam	M	19	H	26	M	19	H	64
Bearville	M	19	M	16	M	20	M	55
Bigfork	M	19	H	34	M	18	H	71
Bovey	H	21	H	30	M	17	M	68
Blackduck	M	19	M	22	M	19	M	60
Calumet	H	21	H	36	M	21	Extreme	78
Cohasset	H	21	H	38	M	22	Extreme	81
Coleraine	M	19	H	38	M	21	Extreme	78
Deer River	H	21	H	34	M	19	H	74
French	M	19	H	32	M	19	H	70
Goodland	M	18	M/H	28	L/M	16	M	62
Grand Rapids	H	23	H	38	M	20	Extreme	81
Hill City	M	19	M	28	M	17	M	64
Keewatin	H	21	H	33	L/M	18	H	72
Marble	H	21	H	32	M	22	H	75
Nashwauk	H	21	H	32	M	19	H	72
Northome	M	19	H	32	L/M	15	M	66
Squaw Lake	M	19	H	33	L/M	15	M	67
Taconite	M	19	M	24	M	22	M	65
Warba/Seeley /Sago	H	21	M/H	29	L/M	16	M	66

5. Fuel Hazards

Vegetation Type – Predominant vegetation type for this community.

NFDRS Fuel Model – (National Fire Danger Rating System) a set of numbers that defines fuel input to a fire spread mode.

Fuel Model FBP – A Canadian Fire Behavior Prediction system that defines fuel input into a fire spread model.

Buffer – Any obstruction to the spread of fire; typically an area or strip devoid of hazardous or flammable fuels. Buffers are areas around a community (not just a single structure) that would be required to protect structures within the community from a wildfire event. Buffers were developed based on spread rates of fires and response times of suppression resources.

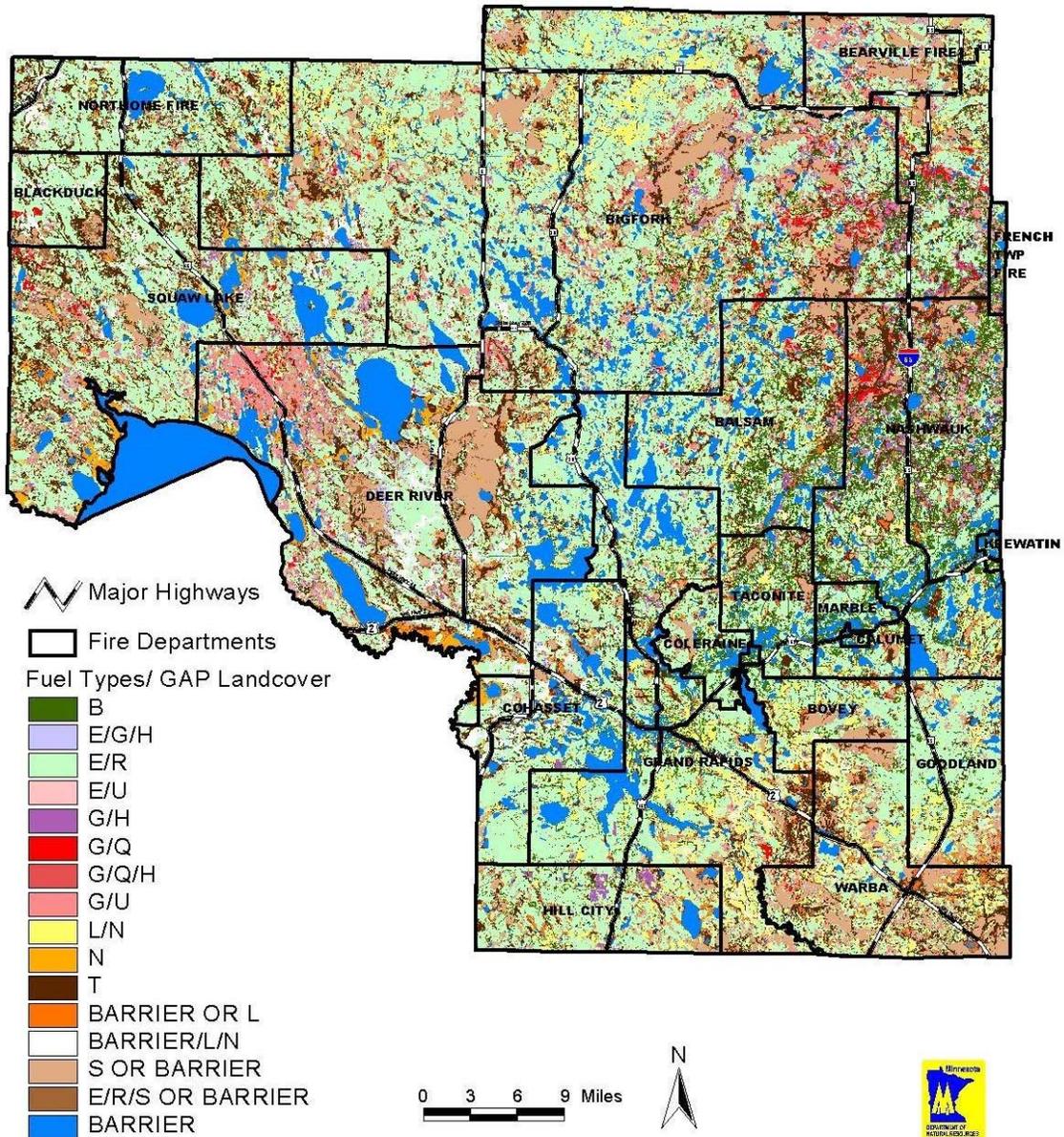
Crown Fire Potential – The potential of a fire to advance from top-to-top of trees or shrubs more or less

Note: Slash models are also present in all protection areas, but vary due to the amount and type of timber harvesting. Fuel models are 11, 12, & 13.

WUI COMMUNITY	Veg Type	Fuel Model NFDRS	Fuel Model FBP	Individual Structure Buffer (ft.)	Community-Based Buffer (miles)	Crown Fire Potential Y/N
Balsam	Grass, Aspen, Upland Conifers	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes
Bearville	Grass, Aspen, Upland Conifers	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes
Bigfork	Grass, Aspen, Upland Conifers	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes
Bovey	Grass, Aspen, Upland Conifers	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes
Blackduck	Grass, Aspen, Upland Conifers	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes
Calumet	Grass, Aspen, Upland Conifers	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes
Cohasset	Grass, Aspen, Upland Conifers Lowland Conifers	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes
Coleraine	Grass, Aspen, Upland Conifers	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes
Deer River	Grass, Aspen, Upland Conifers	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes
French	Upland Conifers	9,10	C	9,10=1000	1	Yes
Goodland	Grass, aspen, Northern Hardwoods, Upland Conifers	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes
Grand Rapids	Upland Conifers, Aspen/Balsam, grass	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes
Hill City	Northern Hardwoods, Aspen/Balsam, grass	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes
Keewatin	Grass, Aspen, Mixed Wood	1,8,9	O,D,M	-1/9:200' -10=1000'	1	Yes
Marble	Upland Conifers, Aspen/Balsam, grass	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes
Nashwauk	Upland Conifers, Aspen/Balsam, grass	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes
Northome	Aspen/Balsam, grass	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes
Squaw Lake	Upland Conifers, Aspen/Balsam, grass	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes
Taconite	Upland Conifers, Aspen/Balsam, grass	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes
Warba/Seeley/Sago	Upland Conifers, Aspen/Balsam, grass	1,8,9,10	O,D,C,M	-1/9:200' -10=1000'	1	Yes

6. Itasca County Fuel Model Map

Itasca County NFDRS Fuel Types



See Appendix 3. NFDRS National Fire Danger Rating System

7. Fire Behavior Prediction Systems and Fuel Modeling

A fuel model is a description of the type of fuel present in a forest used as one of several parameters that help predict what a fire is likely to do. Wildland Fire fighting agencies such as the MN DNR and U.S. Forest Service use several modeling systems, computer programs and Fire Behavior Prediction Systems to aid in predicting fire danger and behavior.

- A. **The Canadian Forest Fire Behavior Prediction (FBP) System** is one of the four subsystems of the Canadian Forest Fire Danger Rating System. The FBP System is a systematic method for predicting wildland fire behavior potential. It relates fire characteristics to wind, fuel moisture, and topographic conditions for various fuel (vegetation) types. FBP is widely known and understood among the wildland fire community in Minnesota and is more representative of the type of fuel models that are present in Northern Minnesota. **FWI (Fire Weather Index)** is another one of the four subsystems associated with the Canadian Forest Fire Danger Rating System and operates similarly to the NFDRS (see below) by predicting fire danger for the day or next day based on current and past conditions such as type of fuel, fuel moisture, relative humidity (rH), temperature, wind speed, wind direction and amount of precipitation or days since last precipitation.

Users must be careful not to apply the system beyond its useful range. In the FBP system, predictions are limited to a fire spreading during one burning period from a point source ignition or line of fire, assuming that:

Fuels conditions are similar to one of the 16-benchmark fuel types.

The fuel moisture codes used are representative of site conditions.

Fuels are uniform and continuous, topography is simple and homogenous, and wind is constant and unidirectional.

The fire is wind or wind/slope driven, and spread is not affected by a convection column. Wind is represented by the 10 meter open wind.

The effect of firebrands on spread is accounted for.

In most fuel types users should be able to estimate fire characteristics within +/- 20% of computed values for rate of spread > 3 meters/minute.

Using the previous day's fuel moisture codes of the Fine Fuel Moisture Code (FFMC), Duff Moisture Code (DMC), and Drought Code (DC) along with the solar noon (13:00 Central Daylight Time) inputs for the forecast next day temperature, RH, 10 Meter wind and 24 hour precipitation, provides outputs of rate of spread and intensity, along with the next day's fire danger level.

Matted Grass (O1a): This fuel type describes matted cured grass (early spring or after snowmelt) condition with a fuel load of 1.3 tons/acre. This fuel type is characterized by continuous grasscover, with no more than occasional trees or shrub clumps that do not appreciably affect fire behavior. The proportion of cured or dead material in grasslands has a pronounced effect on fire spread and must be estimated with care.

Standing grass (O1B): This fuel type represents standing grass common in late summer to early fall with a fuel load of 1.3 tons/acre. O1b can also be used in early spring after a winter with less than normal snowfall, resulting in little grass compaction. As in the matted grass fuel type, the proportion of cured or dead material in grasslands has a pronounced effect on fire spread and must be estimated with care.

The FPB System allows for adjustments to be made to both fraction cured and fuel load for fuel types O1a and O1b.

Mixed Wood (M1) and (M2): **Mixed boreal (back or white spruce, balsam mixed with hardwoods)** stand types are included in this fuel model. The FPB system can be manipulated based on the actual percentage of conifer vs. deciduous component of the stand as increased conifer component affects fire intensity. There is continuous leaf litter in the deciduous portions of the stand and conifer needle litter in the conifer portions of the stand. The presence of balsam and spruce provide ladder fuels in these stand types. There is low to moderate amounts of dead and down fuel in the understory. Fires generally burn with low intensity and low spread rates except in early spring and late fall when the trees do not have leaves. During these time periods, fire can burn intensely with moderate to fast spread rates. M1 describes the spring and fall version of the model and the M2 describes the green up version of the model.

Mixed Wood (M3) and (M4): This describes **dead balsam fir (leafless) and mixed wood** stands. The stands can be manipulated based on actual percentages of deciduous and conifer component. There is continuous leaf litter in deciduous portions of the stand and needle litter and hardwood leaves in the mixed portions. There is typically a large fuel loading of dead balsam in the understory that is sometimes covered with lichen on its branches. Fires generally burn with moderate to high intensity in this fuel type; with moderate to high rates of spread. Crown fires can easily occur in these stands under dry, windy conditions. M3 represents the leafless version of the fuel model while M4 represents the green version.

Conifer (C3): This model describes **mature jack pine** stands. These stands have some understory balsam and spruce in the understory which can act as a ladder for fire to carry into the canopy. These stands typically have light and scattered dead and down fuels. Surface fires are typical in these stands and crown fires can quickly develop with dry, windy weather conditions.

Conifer (C4): Immature Jack Pine This fuel type is characterized by pure, dense jack pine (*Pinus banksiana* Lamb.) or lodgepole pine (*Pinus contorta* Dougl. ex Loud.) stands (10 000–30 000 stems/ha) in which natural thinning mortality results in a large quantity of standing dead stems and dead downed woody fuel. Vertical and horizontal fuel continuity is characteristic of this fuel type. Denser crowns and high ladder fuel content along with volatile oils of young pine allow this type to crown easily. Surface fuel loadings are greater than in fuel type C3, and organic layers are shallower and less compact. Ground cover is mainly needle litter suspended within a low shrub layer (*Vaccinium* spp.).

Conifer (C5): This model describes **mature red and white pine** stands. There is continuous needle cast on the forest floor & moderate to heavy fuel loadings in the understory. Fires typically spread on the surface only with occasional torching of individual and patches of trees where understory fuels have built up.

Conifer (C6): This fuel type describes mature **conifer plantations** with closed crown canopy and very little understory vegetation. There is typically a continuous layer of needle litter. The FBP system allows variance of crown base height. There are very light fuel loadings in terms of dead and down fuels. Fires are generally surface fires that burn with low intensity and slow spread rates.

Deciduous (D1): This fuel models describes (leafless) mature stands of aspen and birch. They generally have continuous leaf litter and very little dead and down fuels in the understory. Fires generally burn in the understory leaf litter with little intensity, but can burn more intensely with moderate spread rates under wind events when no leaves are present on the trees.

- B. **Behave Plus** – is a fuel modeling system used to predict fire behavior in the U.S. It is used to predict fire behavior for a specific site under specific conditions. There are 13 fuel models in the original Behave system which are numeric. Recently the Behave Plus system has been updated to include 40 additional models which are alpha-numeric. Of the original 13 fuel models in the Behave System, eight of these fuel models are found in Itasca County. Only the predominant fuel models are described below.

Fuel Model 1: Short Grass (1FT).

Fire governed by the fine herbaceous fuels that have cured or are nearly cured. Very little, if any, shrubs or timber. Best fits grasslands that are not grazed. Also consider savanna types, stubble, grass with scattered shrubs, grass-tundra or low tussock with grasses, lichen, and mosses.

Fuel Model 8: This model describes closed canopy stands of short-needle conifer and hardwoods that have leafed out. This includes some younger pine plantations, maple, and birch stand types. Typical fires in these stands are slow-burning ground fires with low flame lengths, although the fire may encounter an occasional "jackpot" or heavy fuel concentration that can flare up. Only under

severe weather conditions involving high temperatures, low humidity, and high winds do the fuels pose fire hazards.

Fuel Model 9: This model describes both long-needle conifer and hardwood stands that have not leaved out. This includes older red and white pine stands and aspen stands. Long needles from mostly red and white pines and hardwood leaves have recently fallen to the ground to form a loose layer of leaf litter. Typical fires in these stands are low intensity /severity fires that burn with low flame lengths (2-6'). However with fire exclusion, they now burn more intensely. Crowning, spotting, and torching of individual trees can occur if there are many trees close together and if tree crown layers are low to the ground.

Fuel Model 10: This model describes mature and multi-aged, short –needle conifer stands including jack pine and stands with a heavy balsam fir component. They are beginning to accumulate large-diameter, dead and down woody fuels as a result of trees dying from overcrowding and insect and disease disturbance. Therefore there is a large amount of dead and down fuel that has accumulated in the understory. Typical fires burn in the surface and ground fuels with high intensity; increasing the potential for fire to spread into the crown easily. Crowning out, spotting, and torching of individual trees are more frequent in this fuel type, leading to potential fire control difficulties.

Fuel Models 11, 12 and 13 are all present within Itasca County. These are slash fuel models with light moderate and heavy fuels.

Blowdown: This fuel type describes the blowdown areas. There are three classifications of blowdown fuels. Light damage areas have less than 33% damage to the overstory (5-20 tons/acre fuel loadings). Moderate damage areas have 33-67% of the overstory damaged (20-50 tons/acre). Heavy damage areas have 67 or more of the canopy showing damage (50-300 tons/acre). Prior to the blowdown, these areas had fuel loadings between 1-15 tons per acre. Fuel Model 10 represents the fire behavior that may be seen from light blowdown areas. A custom fuel model has been developed to represent the fire behavior associated with areas where there is moderate to heavy blowdown. Fuel model 13 can also be used to predict fire behavior in moderate and heavy blowdown, but tends to under predict fire intensities and spread rates for blowdown fuels. Fires burn these fuel models with moderate rates of spread and high intensities under moderate to dry weather conditions. If standing trees are also present, crowning, spotting and torching of individual trees can be expected.

- C. The **National Fire Danger Rating System (NFDRS)** is a set of computer programs and algorithms that allow land management agencies to estimate the current day or following days fire danger for a large geographic area. NFDRS characterizes fire danger by evaluating the approximate upper limit of fire behavior in a fire danger rating area during a 24-hour period. Calculations of

fire behavior are based on fuels, topography and weather, or what is commonly called the fire triangle. NFDRS outputs give relative ratings of the potential growth and behavior of any wildfire. Fire danger ratings are guides for initiating pre-suppression activities and selecting the appropriate level of initial response to a reported wildfire in lieu of detailed, site and time-specific information. It links an organization's readiness level (or pre-planned fire suppression actions) to the fire problems of the day. See page 89 for NFDRS Map.

8. Buffers

Buffers are areas around a community (not just a single structure) that would be required to protect structures within the community from a wildfire event. Buffers were developed based on spread rates of fires and response times of suppression resources. Estimated spread rates were developed through a fire behavior model (BEHAVE) that predicts fire behavior (spread rates, intensity, flame lengths) based on weather and fuel conditions. Response times are based on the amount of time that is predicted for suppression resource to be able to arrive at a fire in the given area. The faster the spread rates, the larger the buffer needed. The longer the response times, the larger the buffer needed. Vegetation treatments that are concentrated within the buffer zones of a community will help prevent fires from spreading rapidly and intensely near community areas.

See Appendix References: Anderson, H.E. 1982.

9. Definition of Fire Regime Condition Class (FRCC)

DEFINITIONS: Fire Regime is the composite result of fire frequency, fire severity, and other disturbances. It describes the type of fire that naturally occurred on the landscape.

Fire Regime	Fire Frequency ⁱ	Fire Severity ⁱⁱ
I	0-35 years	Low severity
II	0-35 years	Stand-replacement severity
III	35-200 years	Mixed severity
IV	35-200 years	Stand-replacement severity
V	200+ years	Stand-replacement severity

ⁱ Fire frequency is the average number of years between fires.

ⁱⁱ Fire severity is the effect of fire on the dominant overstory vegetation.

DESCRIPTION: Fire Regime Condition Class is a tool developed to evaluate current against natural landscape characteristics with respect to vegetation-fuel composition and structure, fire frequency, fire severity, and other disturbances.

	Fire regime	Example management options
Condition Class 1	Fire regimes are within natural range, and risk of losing key ecosystem components is low. Vegetation attributes (species composition and structure) are intact and functioning within historical range.	Where appropriate, areas can be maintained within the natural regime by treatments such as fire use.
Condition Class 2	Fire regimes have been moderately altered from their natural range. The risk of losing key ecosystem components is moderate. Fire frequencies have departed from natural frequencies by one or more return intervals. Vegetation attributes have been moderately altered.	Where appropriate, areas may need moderate levels of restoration treatments, such as fire use and hand or mechanical treatments, to be restored to the natural regime.
Condition Class 3	Fire regimes have been significantly altered from their natural range. The risk of losing key ecosystem components is high. Fire frequencies have departed from natural frequencies by several return intervals. Vegetation attributes have been significantly altered.	Where appropriate, areas may need high levels of restoration treatments, such as hand or mechanical treatments, before fire can be used to restore the natural regime.

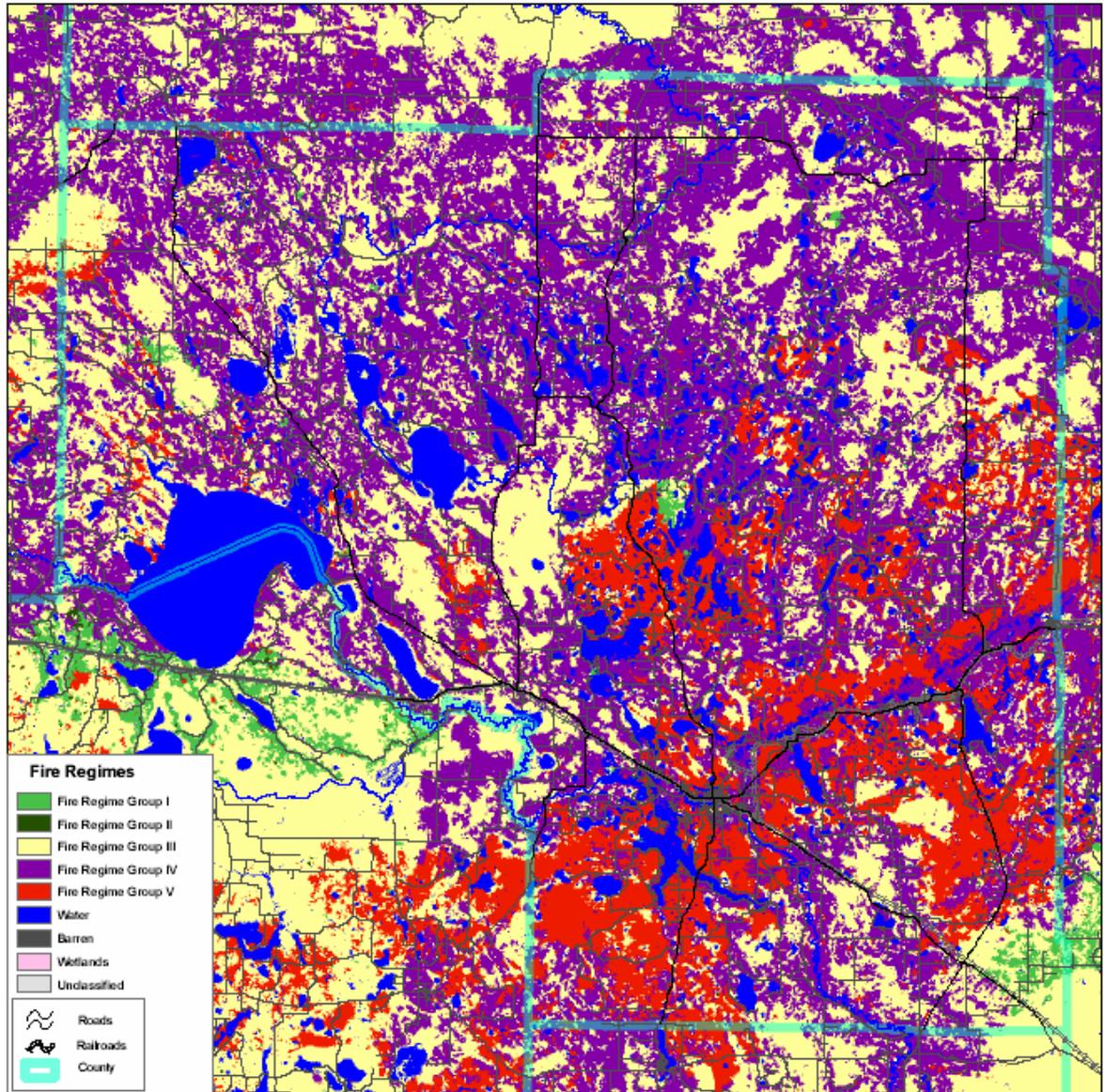
10. Community Fire Regime/Condition Class

WUI COMMUNITY	Historic Fire Regime	Current Fire Regime	Condition Class
Balsam	IV	V	2/3
Bearville	III	IV	2
Bigfork	IV	V	1/2
Bovey	V	V	2/3
Blackduck	III	IV	2/3
Calumet	V	V	2/3
Cohasset	IV	V	2/3
Coleraine	V	V	2/3
Deer River	IV	V	2/3
French	III	IV	3
Goodland	V	V	2/3
Grand Rapids	V	V	2/3
Hill City	V	V	2/3
Keewatin	V	V	2/3
Marble	V	V	2/3
Nashwauk	V	V	2/3
Northome	IV	IV	2/3
Squaw Lake	IV	V	3
Taconite	V	V	2/3
Warba/Seeley/Sago	III	IV	2/3

11. Historic Fire Regime Map

Reference:

Itasca County Wildland Historic Fire Regimes

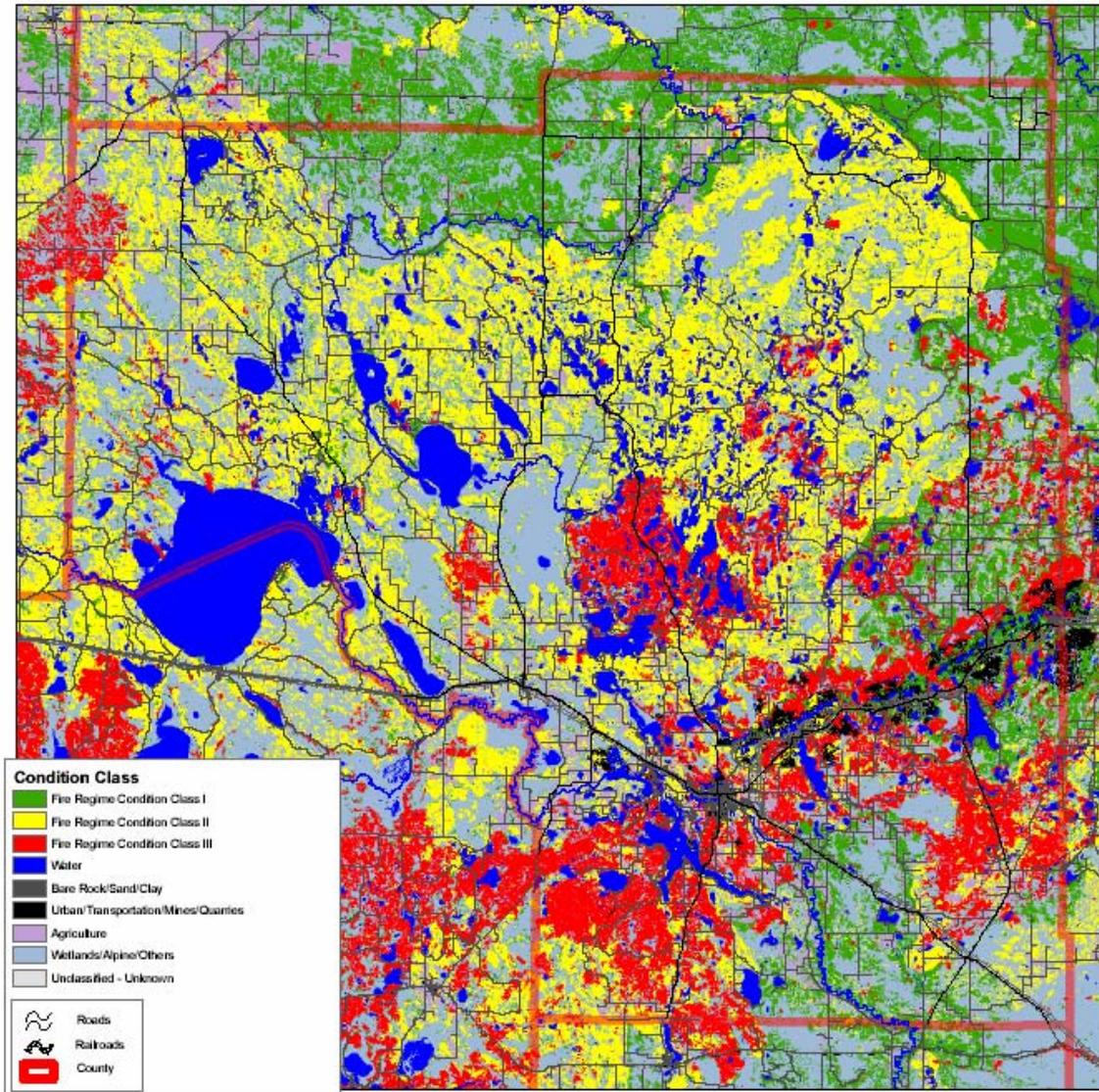


LandFire Rapid Assessment
http://www.landfire.gov/Products_Rapid_Assessment.html

12. Condition Class Map

Reference:

Itasca County Wildland Fire Regime Condition Classes



LandFire Rapid Assessment
http://www.landfire.gov/Products_Rapid_Assessment.html

13. Fire Hazard

Most large wildland fires in Itasca County are essentially wind-driven. Slower spreading, surface type fires with occasional torching are the norm, with wind speeds under 15 mph. Short duration “mini-droughts” quickly dry out shallow ridge top soils, and crown fires will develop on ridges if crown closure and wind speeds are adequate. Single burning period runs of 1.5 to 3.5 miles have been documented. While the presence of numerous lakes might make effective firebreaks under low to moderate conditions, during extreme fire conditions, ¼-mile to ½-mile spotting distances make all but the largest lakes ineffective at stopping forward spread.

Fires in blowdown can be expected to burn at higher, prolonged intensities, with increased daily spread rates as compared to fires occurring prior to the blowdown. However, it is not expected to reach the same rapid spread rates achieved by previous standing timber, with crowning and spotting associated with winds exceeding 10 mph (16km/hr). In addition to the normal threat of wind-driven fire, threat of plume-dominated fire has increased due to available fuel loading from the blowdown. Spotting distances for this type of fire can exceed one to three miles.

14. Seasonal Weather Patterns Affecting Fire Behavior

Fire Danger thresholds in Itasca County have significant differences between the spring (April-June) and fall (July-October) fire seasons to break out threshold levels accordingly. The following chart indicates 90th and 97th percentile values for NFDRS indices:

Spring Fire Behavior Thresholds (May – June)

Energy Release Component (ERC)	90% = 36	97% = 46
Burning Index (BI)	90% = 46	97% = 56
Relative Humidity (RH)	90% = 20%	97% = 16%
Temperature	90% = 83 degrees	97% = 85 degrees
100 Hour Fuels	90% = 12%	97% = 10%
1000 Hour Fuels	90% = 16%	97% = 14%
20 Foot Wind Speeds	90% = 12 mph	97% = 15 mph

Fire Behavior Thresholds (July – October) Fall

Energy Release Component (ERC)	90% = 32	97% = 37
Burning Index (BI)	90% = 36	97% = 44
Relative Humidity (RH)	90% = 30%	97% = 25%
Temperature	90% = 80 degrees	97% = 84 degrees
100 Hour Fuels	90% = 14%	97% = 12%
1000 Hour Fuels	90% = 18%	97% = 16%
20 Foot Wind Speeds	90% = 12 mph	97% = 15 mph

Canadian Forest Fire Behavior Prediction System

Fire Behavior Thresholds

Fire Weather Index (FWI)	90% = 22	97% = 33
Build-up Index (BUI)	90% = 54	97% = 78
Initial Spread Index (ISI)	90% = 11	97% = 17
Drought Code (DC)	90% = 278	97% = 375
Duff Moisture Code	90% = 41	97% = 64
Fine Fuel Moisture Code (FFMC)	90% = 90.8	97% = 93.1

VIII. Emergency Operations:

1. Protection Capabilities*

**See each individual community profile for structural fire protection capabilities (starting on page 30)*

Itasca County has already completed updating their E-911 signage. Proper E-911 signage and reflective street signs help the fire department(s) or emergency vehicles find homes.

Suppression activities are governed by documents such as The Interagency Agreement for the Minnesota Interagency Fire Center, The MN-DNR Fire Suppression Handbook, National Interagency Mobilization Guide, Eastern Area Interagency Mobilization Guide, National Wildfire Coordinating Group, International Border Agreement Operating Guidelines for Wildfires in the Common Zone, The Governors Executive Order, Chippewa National Forest Fire Management Plan, NWCG Fireline Handbook and The MNICS Mobilization Plan. These plans and handbooks guide our actions whenever a fire is detected.

Minnesota land management agencies have produced a Fire Preparedness Plan for Northeastern Minnesota and Itasca County, which addresses pre-positioning of resources, fuels assessment and reductions, fire prevention, communications infrastructure and fire department coordination. This preparedness plan is also supported by detailed aviation plans.

Interagency Agreement R9-9-96-IA-46 (MIFC Agreement) speaks to the purpose of providing effective and economical protection of life and property. An Operating Plan outlines cooperative fire suppression between the Minnesota DNR Forestry, Chippewa National Forest based on jurisdictional boundaries. It identifies protection zones of mixed ownership where an individual agency provides fire suppression response on all lands.

These agreements will be maintained and supported by interagency resources, stronger communication, and as necessary a unified command structure in addressing wildfire incidents, and Wildland Urban Interface Areas.

2. Structure Protection

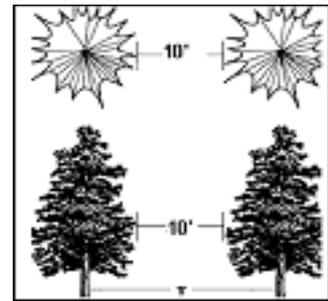
Structural Ignitability

Stakeholders may identify priorities within structure zones and within WUI's using Firewise landscape design information and hazard mitigation prescriptions. Structural ignitability can be addressed by targeting appropriate information on structural design, construction materials to reduce loss of property to citizens and communities as developed by the Great Lakes Fire Compact.

Defensible space zones:

There are three zones around a home that need to be considered to reduce the risk of wildfire loss.

1. The first zone is the structure zone - the area within 5 feet of the structure. If a wildfire is allowed to reach this zone, the home will likely be lost. Fire can reach this zone by traveling on the ground through flammable materials such as tall grass, wooden walkways and fences, or by flying embers from a nearby fire that catch fire in materials within this zone.



2. The next zone makes up the defensible space and is the area within 30 feet of the structure. Any decks or outbuildings inside this zone are considered part of the structure and extend the zone 30 feet beyond them. This is the zone that, if properly landscaped, can prevent a wildfire from reaching the structure zone.

3. The third zone is the wild land or fuel reduction zone. This extends 100 feet beyond structures and is generally where the woods or other wild areas are. This is the area where excess fuel such as downed trees, heavy brush and dense conifer plantations should be reduced.

Refer to Appendix 4 for DNR Firewise Level I Assessment Map of Itasca County; individual Level I maps are available for each fire protection area.

See also Minnesota DNR Firewise website for more detailed descriptions and mitigation of Structural Ignitability factors to reduce home hazard risk at www.dnr.state.mn.us/firewise.

3. Infrastructure Protection

Critical infrastructure is identified in each Community Description beginning on Page 30 and summarized beginning on Page 114.

Please note, the proposed developments of Mesabi Energy and Minnesota Steel will add new infrastructure challenges for local fire departments to consider.

4. Inventory of Fire Protection Resources*

DNR Forestry has offices in 3 locations within the county, Deer River, Grand Rapids, and Effie. Also, the DNR Forestry office in Hibbing, and Side Lake, which serves the eastern portion of Itasca County, and St Louis County.

Below is a list of wildfire protection resources and their location:

Deer River DNR Fire Equipment:

4 Type 6 Wild land Fire Engines, each with 200 gallons water and foam unit
vehicle with 110 gallons water

Grand Rapids DNR Fire Equipment:

4 Type 6 Wild land Fire Engines, each with 200 gallons water and foam unit
One J-5 all terrain vehicle with 110 gallons water

Effie DNR Fire Equipment:

3 Type 6 Wild land Fire engines, each with 200 gallons water and foam unit.
One J-5 all terrain vehicle with 110 gallons water.

Hibbing DNR Fire Equipment

3 -Type 6 Wildland Engines, each with 200 gallons water and foam unit
One JD 450G Dozer
One Muskeg Bombardier with water

Side Lake DNR Work Station

3 Type 6 Wildland Engines, each with 200 gallons water and foam unit
One JD 350 Dozer
One J-5 all terrain vehicle with 110 gallons water.

The Chippewa National Forest has suppression resources at one location within Itasca County at Deer River Ranger District in Deer River.

The Deer River District serves the western portion of Itasca County within the Chippewa National Forest.

Suppression Resources consist of:

- 2 Type 6 engines, each with 250 gallons of water and foam capabilities
- One Interagency 5 person Type 3 hand crew during spring fire season or as needed because of drought or elevated risk; it would be continued longer for the season.
- Two ATV s
- Two boats dedicated to suppression
- EERA emergency equipment rental agreements for fire support purposes on an 'as needed' basis. (e.g. rental agreements-engines, tenders, transportation, suppression support equipment, and specialty equipment, i.e. dozers, large ATV with suppression capabilities, etc.

In addition to the above listed resources, additional resources are available through MIFC. The Minnesota Interagency Fire Cache (MIFC) is located in Grand Rapids, and houses and mobilizes equipment to support wildfire operations within the county, state, and nation. The following suppression resources are available through MIFC:

- **2 CL-215 Aircraft** – These water scooping aircraft are capable of dropping up to 1,400 gallons of water, foam injected water, or retardant at one time. They can scoop water from nearby lakes, which shortens their response time. The Minnesota Department of Natural Resources owns two CL-215's. Call-When-Needed (CWN) CL-215 can be ordered when conditions warrant. These aircraft are stationed in Brainerd, Bemidji and Hibbing depending on fire danger.

Conventional water or retardant delivery aircraft - these aircraft are dispatched based on national priority at the time an order is placed.

3 DeHavilland Beaver fixed wing aircraft with water dropping capability, amphibious with floats. These are generally based out of Ely, but can be available in our area.

3- Type 3 contract Helicopters – Are available for use in Itasca County. These helicopters are capable of picking up and dropping 110 gallons of water from almost any water source. These aircraft are based out of Hibbing, and Hill City, Bemidji and sometimes Grand Rapids, during the normal spring fire season. In addition, when fire danger persists or is elevated, Call When Needed helicopters can be put on duty. There is approximately a 1 to 3 day notice required to acquire these CWN's.

3- Air Attack Platforms – A small aircraft used to coordinate all aerial operations over an incident. It is also used to guide aerial water or retardant delivery to the fire. Depending upon activity this aircraft is stationed in Hibbing, Ely, Bemidji or Brainerd.

3- (4-5 person) Crews – Crews from MCC (Minnesota Conservation Corps) are available from Eveleth, Duluth and Grand Rapids. Additional crews are available through the MNICS organization and come from throughout Minnesota and are dispatched or prepositioned as fire danger increases.

1- Type 4 Engines stationed at – Eveleth an 850 gallon fire truck (3 ton) with foam capabilities, additional engines of this type are available through the MNICS organization. They come from throughout Minnesota and are dispatched or propositioned to areas as fire danger increases.

10-12 Type 6 Engines available with a two hour response time from DNR offices in northern Minnesota and from the Chippewa National Forest.

3-5: J-5 bombardiers ATVs that are available with a two hour response time from DNR that carry 110 gallons of water with a two person crew.

2- Cache Vans – Two Ryder type trucks stocked with equipment and supplies that improve local area fire response capabilities. These trucks can be ordered and prepositioned as needed.

Mobile Radio Support Systems – Radio support kits supplement existing radio system infrastructure to provide two-way radio communication for emergency response resources available through MIFC.

IX. Mitigation Action Plan

1. Implementation Team:

The Itasca County Community Wildfire Protection Plan Implementation Team is recommended to be composed of representative(s) from Itasca County, MN Department of Natural Resources, Itasca County Fire Chiefs Association, tribal and local government, local fire departments and the U.S. Forest Service. Use of a resource advisory committee is also recommended. Members of the Implementation Team can be contacted through the Administrative Services Department, 123 NE 4th Street, Grand Rapids, MN 55744 at 218-327-2847.

The team will focus on the recommendations listed in the plan, but will consider other projects as needs require. The team will set standards for implementation of fuels reduction and hazard mitigation projects within each of the WUI areas. As the team moves towards plan implementation, community involvement will be solicited to ensure the needs of the local community are incorporated in the planning, development and execution of various projects within any given Wildland/Urban Interface area. Implementation of all fuels reduction and hazard mitigation projects will follow State, Federal and County land management policies and procedures.

As the team looks towards a specific WUI, their first step will be to go to the pages in the plan that outline each community (starting on page 30). These community descriptions were developed by a broad based group of citizens. The following areas were addressed in general and these subjects along with others will be addressed in more specificity as implementation projects are designed. Areas to be addressed include: access; fuels and fire hazard; fire regime and condition class; vegetation treatments; rare habitats; watersheds; biodiversity; infrastructure risks; community values; recreation economics; businesses; preparedness capabilities; firewise activities. Additional technical expertise will be brought into the planning and implementation process, including fire departments, home owners and lake associations, emergency management personnel, biologists, silviculturalists, botanists, fuels and fire specialists, and others on an as needed basis.

Project decisions for implementation will be made on a case by case basis specific to each WUI area. The plan is that each representative Implementation Team member will bring specific information back to the groups and agencies that they represent to make sure the community is informed. Throughout the planning process, Implementation Team members will also seek information and feedback from the public to ensure the best possible actions occur.

The development of this CWPP has built closer relationships between communities, fire departments, the county, state and federal partners. This cohesive team effort has sparked new ideas and concepts for furthering the community wildfire protection planning process. The ideas developed in this planning process have further enhanced the capabilities for all hazard and risk planning. In the event of a hazard situation, all entities within the county will be better prepared to work with one another to best meet the needs of local citizens.

2. Evacuation Plan – Refer to Itasca County County-Wide Emergency Operations Plan

3. Contact Numbers:

FIRE DEPARTMENT CONTACTS					
FIRE DEPT.	ADDRESS	CITY	ZIP	CHIEF	DAY PHONE
Balsam	41362 Scenic Hwy	Bovey	55709	Troy Beckner	245-2642
Bearville	63936 Co Rd 557	Cook	55723	Tim Bormann	376-4571
Bigfork	PO Box 128	Bigfork	56628	Ron Root	743-3131
Blackduck	PO Box 380	Blackduck	56630	Richard Bogart	835-4548
Bovey	PO Box 435	Bovey	55709	Kevin Odden	245-1555
Calumet	PO Box 247	Calumet	55716	Jerry Larson	247-7988
Cohasset	PO Box 242	Cohasset	55721	Denny Lemler	328-6624
Coleraine	PO Box 670	Coleraine	55722	Randy Savich	245-3385
Deer River	PO Box 312	Deer River	56636	Jim Daigle	246-8306
French	PO Box 41	Side Lake	55781	Pete Leschak	254-3208
Goodland	PO Box 1	Goodland	55742	T.J. Russell	492-4137
Grand Rapids	18 NE 5 th Street	Grand Rapids	55744	Dale Rosier	327-2777
Hill City	PO Box 168	Hill City	55748	William Nelson	697-8275
Keewatin	PO Box 389	Keewatin	55753	Jeff Graves	778-6880
Marble	PO Box 255	Marble	55764	Jason Williams	247-0185
Nashwauk	301 Central Ave.	Nashwauk	55769	John Calaguire	885-1042
Northome	PO Box 65	Northome	56661	Wayne Skoe	897-5601
Squaw Lake	51041 Hwy 46	Squaw Lake	56681	Tom Kallio	659-4351
Taconite	PO Box 116	Taconite	55786	Don Hanson	245-3660
Warba/Seeley/Sago	24 N 1 st Avenue	Warba	55793	David Carey	492-4392

4. Emergency Contacts

Itasca County Sheriff and Emergency Management Director

Sheriff Pat Medure

440 1st Avenue NE, Grand Rapids, MN 55744

Office: 218-327-7476 Fax: 218-327-4663

Toll free: 1-800-605-1173 Cell: 1-800-620-1122 or 218-244-1122

pat.medure@co.itasca.mn.us

5. Current Activities and Projects.

Based on community efforts and the hazard and risk assessments (starting on page 83), preliminary recommended actions for risk reduction are found on each community description page. Community members wishing to comment and give suggestions for actions should contact the Itasca County CWPP Implementation Team.

6. Monitoring and Evaluation:
 (To be revised and updated by the Itasca County CWPP Implementation Team)

Projects	Recommended Actions	Timelines
Fuels Treatments	Prioritize Hazardous Fuel Treatments Annually Track grants and utilize risk assessment data in the grant application process. Where possible track homeowners fuel mitigation projects Look for stewardship contract opportunities to reduce hazards. Evaluate opportunities for biomass marketing and hazardous fuel reduction and utilization	Annual Ongoing Annual Annual Annual
Fire Prevention	Track prevention and education programs to document prevention objectives.	Annual
Fire Departments	Identify and provide cross departmental training and opportunities	Annual
Emergency Management	Review emergency management policies/evacuation procedures Evacuation exercise; focus on how well the evacuation procedure functions	Annual 2 years
Firewise	Track grant dollars and projects directed to citizens with special needs Work at completing assessments in priority areas, and other areas resources allow. Work with Itasca County communities on grant processes. Monitor number of evacuation corridors/roads treated for fire protection on county, private, state and federal roads Track fuels reduction grants	Annual On going Annual Annual Annual

X. GLOSSARY

Biomass energy from wood (woody biomass) – is a clean and renewable energy source. Because fossil fuels are likely to become increasingly expensive, woody biomass can play an important role by providing energy in the form of heat, electricity or transport fuels.

Crown fire – a fire advancing from top to top of trees or shrubs more or less independent of a surface fire.

Infrastructure – Critical infrastructure are the basic economic, social, or military facilities and installations that form a foundation for a community.

ISO – Insurance Services Office – ISO collects information on a community's public fire protection and analyzes the data using our Fire Protection Rating Schedule. It then assigns a Public Protection Classification from 1-10. Class one represents the best public protection and class 10 indicates less than the minimum recognized protection.

NWCG – National Wildfire Coordinating Group – a federal interagency group comprised of those federal agencies with land management and fire management responsibilities.

Preparedness – (1) Condition or degree of being ready to cope with a potential fire situation. (2) Mental readiness to recognize changes in fire danger and act promptly when action is appropriate.

Response – Movement of an individual fire fighting resource from its assigned standby location to another location or to an incident in reaction to dispatch orders or to a reported alarm.

RFD – Rural fire department or district – An organization established to provide fire protection to a designated geographical area outside of areas under municipal fire protection. Usually has some taxing authority and officials may be appointed or elected.

Risk – The chance of fire starting from any cause.

Suppression – The most aggressive fire protection strategy, it leads to the total extinguishment of a fire.

Surface fire – a fire that consumes fuels lying on or near the surface of the ground, including leaf and needle litter, dead branch material, downed logs, bark, tree cones, and low stature living plants.

Structural Ignitability – A structure's (home's, outbuilding's) construction and materials as well as it's immediate surroundings, access and other related factors that determine if a structure will easily ignite if a wildfire occurs in the area.

Urban Interface – Where wildland fuels threaten to ignite combustible homes and structures located there.

VFD – Volunteer fire department – A fire department of which some or all members are unpaid.

Wildland – An area in which development is essentially non-existent, except for roads, railroads, power lines, and similar transportation facilities. Structures, if any are widely scattered.

Wildland fire – Any fire occurring on the wild lands, regardless of ignition source, damages or benefits.

Wildland Fire Use – is the management of naturally ignited (lightning) wildland fire to meet specific objectives on Federal Lands.

Wildland fuels - trees, brush and other vegetative materials.

Wildland Urban Interface (WUI) - An area where wildland fuels and homes and other combustible infrastructure meet and are at risk of igniting by wildfire, should one occur in the area.

Woody Biomass – Woody biomass is a term used to describe wood, wood residue and byproducts, and dedicated, fast growing trees, bushes and shrubs.

APPENDIX

1. **Itasca CWPP Community Meetings Comments:**

I. Access:

1. Closing USFS roads will increase fires.
2. USFS should respect county board resolution to keep RS2477 roads, trails and cartways open.
3. Concern over winter/summer access
4. Access non-motorized areas for fire fighting in Third River Twp.
5. Need to widen roads
6. Gates locked
7. Many dead end roads need turn-arounds
8. Jurisdictional issues
9. Keys for gated access should be kept in emergency vehicles.
10. Accessibility due to closing of roads by the USFS plans. We need to keep our roads including logging roads open and clear so they could be used for fires.
11. Concern with USDA barricading roads to prevent fire fighting access.
12. Concern over defensible space for fire dept. or emergency services vehicles. Trucks keep getting bigger and bigger and roads are narrower and smaller
13. Gated access creates problems.
14. Maintain roads in CNF for access for emergencies.
15. Should there be ordinances that will address access issues and ensure that fire equipment and emergency services vehicles can access/egress safely?
16. Who will provide access management?
17. How can we (I) help to increase access to remote areas and maintain access already in place.
18. Create standards for access

II. FUEL Mitigation:

1. Dry Hydrants
2. Need smaller equipment that can negotiate small access space
3. Log areas before they become a problem. Keep forests healthy and growing.

4. Where can some timber be harvested to reduce fuel loads?
5. Reduce fuels in federal forests
6. Fuel accumulations along roads and landowner removal problems with all property owners.
7. Burning Barrels

III. Structure Ignitability:

1. Increase in number of homes
2. Concern over cedar shake shingles
3. Protect vulnerable communication stations (pedestals)
4. Create standards for homes

IV. Treatments:

1. Prescribe burning of grassy areas
2. Reduce wood ticks-burn grass
4. Underburn in forested stands
5. DNR and USFS need to communicate prescribe burning to local government and volunteer Fire Departments prior to activity so locals know what is happening
6. Slash Treatments
7. How to cut trees to keep the forest healthy, protect water quality and still allow for recreational enjoyment.

V. Education:

1. Educate citizens on wildfire prevention (wood piles under cabins etc.)
2. School the people in the best way's to manage forest land and woodlots for everyone.
3. Engage citizens. Mail a flyer to each citizen/landowner.
4. Hand out risk assessments at elections
5. Send wildfire protection info to each landowner
6. What can be done to educate the general population to be more aware of risks and procedures to reduce risks?
7. Need to educate seasonal residents on wildfire dangers, fuels
8. Better information dispersal.
9. Would insurance companies co-operate?
10. Can you send a notice with tax statements?

11. Education instead of demands or laws. People should care enough about their homes to protect them
12. What is the local fire department doing for education of the general public?
13. Educate people at public places like fairs, township meetings etc. This project needs to start at the grass roots. Educate! Educate! Educate!
14. Find a way to better inform the public about this program
15. Send a smaller flyer out county wide state what the program is and can do and where they can find

Community Meeting Comments by Community:

Squaw Lake:

1. Concern over response time to Dora Lake.
2. Dry hydrants Dixon Lake, Third River.
3. Jack Pine Budworm-Moose Park Township.
4. More than 90% of the homes are seasonal.

Warba:

1. Itasca County Wildfire Map indicates 43% of the fires were caused by people burning debris—I would concentrate on burning permits for citizens.
2. Information is key to our fire dept and should be key to citizens who want to burn. They should know information how to burn debris and running fires the right way. And Fire depts. should be notified before they burn.
3. I think that all citizens should have a fire protection plan before a burning permit is issued on hand and with fire wardens.
4. A flyer with information should be given to people who want to burn an area before a burning permit is approved and would be nice that the Fire Dept know about burning in our district.
5. How can we get more community members involved?
6. Will the electronic burning permits be an improvement over paper?

7. Can people be allowed to apply for more than one grant?
8. Good idea having these meetings, more in the future would help. Possibly for each community and township. Information is key!
9. Retention: a guide for employers so they understand the need for volunteer fire fighters
10. Wildfire training with DNR and RFDs.

Deer River:

1. Is there any incentive from an insurance cost stand point to providing a defensible space around a home?
2. The most significant WUI in Deer river area is around the villages of Ball Club and Inger. Does Leech Lake Reservation have an interest in this plan?
3. How will the projects that are identified be funded and what will the process for accessing funds? Will the county be the funding /fiscal agent for these projects?
4. Concern over hazardous fuels at the Sportsman's Club in Deer River.
5. Concern over Cedar wild lands-dead branches.
6. Areas of Dead Balsam that is standing and fallen-volatile fuels. Concern over successional changes in the landscape from old fields into brush
7. Concern over hazardous fuels near homes in Inger and Ball Club
8. Are the risks getting greater?
9. What are the chances for spontaneous combustion?

Nashwauk:

1. Minnesota Steel-Impacts on Nashwauk FD, New Mill
2. Influx of more people into the immediate area.
3. How does NFD gear up with more equipment, specialized equipment and funding?
4. Excellent presentation!

Grand Rapids:

1. Number one concern is structures
2. There needs to be a mechanism within the plan that identifies the need to have it automatically reviewed in 10 years.
3. Chiefs interest in having a plan adapted for the city, having an assessment within city limits and then working to outer limits of city.
4. Recruitment and Retention problems for volunteer fire departments
5. Improve communication system to be better prepared for wildfire disaster.
6. Review plan every three of 4 years.
7. RS2477 needs to be included in the CWPP along with a county resolution to keep roads trails and caraways open.
8. I am concerned over the Excel Energy Plant as a potential hazard that could increase wildfire risks. What about the increased railroad cars carrying coal through the city?

Marcell:

1. Dead Balsam by Side Lake
2. Hazardous fuels from Bass Lake, Scenic to Togo.
3. Several areas of dead timber all over the Bigfork RFD.
4. Concern about recreational people using forests recklessly.
5. Why does most everyone think there has to be government funded programs to save them?
6. We now border an expanded non-motorized area-how can the firefighters and their equipment get in to fight a fire? Should it be in the non motorized

area? I know in our area alone there are many roads, trails, etc. in or partially thru the forest – and most likely this is true of much of Itasca County.

7. If there are roads, trails, etc. already in place, these should and MUST be kept open.

“Motorized” traffic, especially for fire protection *must* be allowed! And these roads, trails, etc. must be maintained so fire protection equipment can be used.

8. This program is long overdue. Need more emphasis on this important issue.
9. My property is immediately adjacent to the Chippewa National forest lands. Can I apply for/receive a permit to perform prescribed brush clearance and biomass removal at this time? Or Later?
10. We need the trails in non-motorized area of Suomi Hills to be useable in case of fires. Our community would be in grave danger if there was a fire in those hills with all the deadfall.
11. Having a forestry fire box in the community with fire fighting equipment has helped with many fires in the Suomi community - and the forest off the Orange lake Road used by the Suomi community members in 1952.
12. This Fire department has a large area to cover. What can Townships do to help?? We have concerns regarding recruitment and retention of fire fighters and equipment.
13. What can the townships do to help with this project? Promotion?

2. Community Descriptions Summary

This is a compilation of the 20 Wildland Urban Interface (WUI) protection areas.

<p>1. Access: condition or class of a road as it relates to acceptable access or egress for emergency evacuation, ambulance, fire engines and access for essential emergency services and community planning projects.</p>	<ul style="list-style-type: none"> -State Highway System -Network of paved County Roads -Gravel county roads and township roads-provide challenges during spring break up. -Recreational trails system (bikes, ATV, ski, hiking, snowmobile) -Logging roads -Railroads -mining roads -public water access to lakes and rivers <p>Challenges: Gated drives/roads, Narrow dead end roads Narrow, winding driveways preventing access of emergency service vehicles Water challenges (Pokegama Lake causeway, Mississippi river) Mining roads that are gated & burned Some secondary roads are impassable during spring breakup</p>
<p>2. Local Topography: local configuration of earth's surface, including its relief and position of natural features.</p>	<p>Generally level Areas of rolling to steep terrain Forested, with over 1000 lakes and rivers</p>
<p>3. Fuel Hazards: a fuel complex defined by kind arrangement, volume, condition and location that forms a special threat of ignition or of suppression difficulty.</p>	<ul style="list-style-type: none"> - Blowdown, bug killed timber in the Chippewa National Forest -Pine Plantations -Areas of Upland Conifers (Jack Pine, Norway Pine, White Pine, Balsam, Spruce) that have potential of extreme fire behavior -Aspen -Lowland swamp grass -Upland grass, fields -Areas of blowdown timber -homes and cabins scattered throughout the area increase chances -Balsam ladder fuels -logging slash/debris -peatlands -mining debris with white goods (tires) -mineland reclamation plantations -volatile materials at research lab -hardwood leaf litter -increase in WUI -powerlines - areas of standing dead woody fuels (balsam & aspen)-Goodland - bug killed balsam fir, mixed conifer with potential of severe to extreme fire behavior (balsam) - tremendous increase in WUI

<p>4. Fire Occurrence: the number of wildland fires started in a given area over a given period of time.</p>	<p>A ten year period for all departments wildland fires each year for Itasca County 65 per year.</p> <p>Causes: 3% Campfires 46% Debris burning 6% equipment 16% Arson 2% Lightning 2% smoking 22% misc. causes (railroads, car accidents, beavers, powerlines)</p>
<p>5. Homes: location and density of homes in a wildland urban interface (WUI) protection area.</p>	<p>-increase in homes with high valued homes along lakes -homes are found along road corridors & lakes -increase in seasonal residences (hunting cabins and lake cabins) -rural farmsteads (dairy, beef) and hobby farms -Grand Rapids is the regional hub with other rural communities.</p>
<p>6. Businesses: numbers of businesses and economic constraints</p>	<p>-local business, manufacturing, retail etc. -resorts -campgrounds -cottage based business (e.g. logging) -sawmills, lumber companies and forest industry -Community centers -Airports -Educational facilities (ICC, NCROC etc) -Government/Civic Services (e.g. Fire halls, post office) -Health care facilities -Power companies (Minnesota power, future home of Excelsior Energy) -Research stations (e.g. Minerals, NCROC, North Central Research Station) -cemetery -mining -farms (agricultural, beef and hobby farms) -recreational facilities (parks, hockey arenas, campgrounds, golf course, ski hills etc.)</p>
<p>7. Jurisdiction: defines structural and wildland fire protection responsibilities for the WUI</p>	<p>Mutual aid agreements with Itasca county Chief Associations, with adjoining Rural fire departments and with DNR-Forestry and US Forest Service. Mutual aid agreements with adjoining rural fire departments/adjoining counties.</p> <p>Area cities/communities provide governing bodies for rural fire departments. Rural fire departments have contractual agreements with townships within protection areas. Squaw Lake has mutual aid agreement with Leech Lake Tribe.</p>

8. Infrastructure risk:	<ul style="list-style-type: none"> -High voltage transmission lines -Local electrical distribution lines -Telephone lines and sub stations -Recreational trails -Stored fuels above ground and below ground -Transportation system -Campgrounds -Public utilities -Railroads -Salvage yards -Natural gas pipelines -Two major international pipeline corridors parallels HWY 2 from Cass Lake to Wawina. Pipelines are natural gas and crude oil poses enormous risk. -Towers -water towers -propane tanks at private residences -trucking on major highways with hazardous materials -lightning fires -wood manufacturing mills -airports -MIFC -DNR regional office -dams (Blandin Paper, Winnie dam and Pokegama dam) -Bridges -Electrical substations -large heavy industrial development using coal -heavy equipment -forest fuels -increase in wildland urban interface -tourists -beavers (started 3 fires in Squaw Lake dropping trees on powerlines) -outdoor wood stoves -tourists -elderly residents -burning barrels -logging slash/debris -area businesses

<p>9. Community values: important values at risk within the community</p>	<ul style="list-style-type: none"> -Retail stores -Manufacturing -Churches, -Resorts -Group homes -Schools -Community Centers -Town Halls -Fire Halls -Public Lands, -Industrial forest lands -Chippewa National Forest -State Forests (Bowstring, Bigfork, George Washington, Golden Anniversary) -State Parks (Scenic, Hill Annex) -County Parks -Seasonal and permanent residences -Hospitals -Airports -Civic Clubs -Parks and recreational facilities -Senior Assisted Living -Libraries -Tourist Attractions (Lost 40, Forest History Center etc) -Public utilities
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<p>10. Local Preparedness Capability: Emergency protection capabilities (equipment, resources) available for community protection</p>	<p>1. PUMPERS: One-3000 gallon One-2500 gallon Two-1500 gallon Two-1200 gallon Nineteen- 1000 gallon Five-750 gallon One-600 gallon</p> <p>2. WATER TANKERS: Three-3500 gal. Two-3000 gal. One-2800 gal One-2250 gal Seven-2000 gal Two-1800 gal Two-1500 gal One-750 gal</p> <p>3. Type 6 Brush Rigs: Four- 300 gallon Three-250 gallon Ten-200 gallon</p> <p>4. Rescue Trucks: Eleven-rescue trucks (five have extrication equipment-Deer River, Goodland, Grand Rapids, Nashwauk, Keewatin) One-six wheeler (Bigfork)</p> <p>5. MISC. Two-500 gallon trailer pumper Three- ATV (one with 50 gal pump, one with trailer & sled) Three -portable pumps Five-Rescue snowmobiles Three-Boats Four-rescue sleds One-100 foot aerial tower ladder truck (Grand Rapids) One-mini pumper (Grand Rapids) One-air crash rescue 1500 + foam (Grand Rapids) One-river defense trailer (containment booms) (Grand Rapids-public works) One-Chemical assessment team (Grand Rapids-state contract)</p>
<p>11. Other: concerns not captured in previous categories</p>	<ul style="list-style-type: none"> -Large-Expansive protection areas (Bigfork, Deer River, Bearville, Squaw Lake, Grand Rapids) -Overall response time is excellent. But response time can be problematic to outlying areas (e.g. Bigfork 1 hour response time to outlying areas, Deer River). -Isolated protection areas from other fire departments(Balsam, Bigfork, Bearville) -These RFD also provide services to other protection areas. -Most RFD's provide first responder services -Satellite hill with rugged terrain poses special physical challenges (Bovey) -“unstable” politics shifting fire department protection areas (Calumet) -Narrow roads pose access problems

<p>12. Fire Department Needs: list of any outstanding fire department needs</p>	<ol style="list-style-type: none"> 1. Common concerns <ul style="list-style-type: none"> -Recruitment and Retention -Staff Training -Improved communications with DNR and USFS -High amounts of public land does not support adequate tax base to support rural fire dept. -Rural areas have low per capita income --“unstable” politics shifting fire department protection areas (Calumet) -Training requirements place demands on volunteers poses challenges for RFD. -RFD’s are the lead with law enforcement for homeland security. 2. Wildland Fire suppression needs: <ul style="list-style-type: none"> -Most fire department need wildland fire PPE -Dry Hydrants/water storage (Balsam Township, Bigfork, Bovey, Cohasset, Coleraine, Deer River, Goodland, Grand Rapids, Hill City, Squaw Lake). - Access to gated areas -Thermal imaging camera - Wildland fire fighting truck (Cohasset, Coleraine) -ATVs to service mining areas, situations that are remote or with off road access (Coleraine to service mine areas, Marble, Nashwauk, Squaw Lake, Taconite, Warba). - Hazard reduction within protection area - Portable pump (Keewatin) 3. Individual Department requests: <ul style="list-style-type: none"> -Replace outdated personal protection gear -A second pumper truck (Bearville) -Extrication Equipment (Bearville, Squaw Lake) -Bunker Gear (Bigfork, Nashwauk, Squaw Lake) -Cleaning equipment for bunker gear (Nashwauk) -First responder vehicle (Bigfork) -Contract service agreements for maintenance and repairs (Bigfork) -Communication upgrades (Bigfork, Calumet, Coleraine, Hill City, Keewatin, Marble) -Communication equipment (ineffective during leaf out-Squaw Lake) -Six wheeler with foam unit (Bovey) -Snowmobile (Bovey, Marble) -Underground storage tanks (Bovey) -Remodel Fire Hall for improved access and equipment storage (Calumet, Coleraine, Hill City, Marble, Warba) -Drop tank (Coleraine) -Nozzels (Coleraine) -Large diameter hose (Coleraine) -Boat: Deer Lake has cabins on islands (Cohasset) -Radios (Cohasset, Keewatin, Squaw Lake) -Rural water supply (Deer River) -New Cascade system (Goodland, Marble) -New SCBA (Goodland, Warba) -New water tender (Goodland, Taconite) -Full Time Fire Inspector (Grand Rapids) -Communications Infrastructure (Grand Rapids, Hill City) -Foam capabilities (Hill City, Squaw Lake) -fire product F500 for potential coal fire problems (Keewatin) -Extension Ladder (35 foot) with equipment trailer to reach the rooftop of the school (Keewatin) -tanker replacement (Marble) -Update pumper & tanker (Squaw Lake, Warba) -new coldwater rescue suits (Nashwauk)
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<p>13. Firewise Information: program information about assessment needs, completion and mitigation measures</p>	<p>1. Current educational outreach efforts:</p> <ul style="list-style-type: none"> -Fire departments participate in National Fire Prevention Week, some participate in fire prevention in schools, parades, some have offered smoke detector programs. -Grand Rapids: FD has Juvenile fire setters program, community awareness (County fair, Jaycee home show, Children’s First) and fire preservation education smoke safety trailer and live burn trailer. -Hill City: Second floor ladders for homes with children without egress -Keewatin: airbag safety information session through ABRA -Nashwauk: Senior citizen fire safety education & tornado warning <p>2. Firewise-</p> <ul style="list-style-type: none"> -RFDs offer no ‘firewise’ information at this time, but most are interested and would like to be involved. -RFDs recognize the importance of wildland fire training and need to educate citizens, especially seasonal residents on wildland fire -Deer River: RFDs needs support from local government units, including tribal government units. -media for community awareness.
<p>14. Fuels: fuels components</p>	<ul style="list-style-type: none"> -Blowdown and areas of standing dead timber within the Chippewa National Forest ---Pine Plantations -Areas of Upland Conifers (Jack Pine, Norway Pine, White Pine, Balsam, Spruce) that have potential of extreme fire behavior -Aspen -Lowland swamp grass -Upland grass, fields -Areas of blowdown timber -homes and cabins scattered throughout the area increase chances -Balsam ladder fuels -logging slash/debris -peatlands -mining debris with white goods (tires) -mineland reclamation plantations -volatile materials at research lab -hardwood leaf litter -increase in WUI -powerlines <p>Goodland: areas of standing dead woody fuels (balsam & aspen) French twp: bug killed balsam fir, mixed conifer with potential of severe to extreme fire behavior. Grand Rapids: tremendous increase in WUI</p>
<p>15. Fire Regime/Condition Class: describes the variability of fuels from the historic range.</p>	<p>Fire Regime IV Condition Class 2/ 3</p> <p>Refer to community Fire Regime/Condition Class table</p>

<p>16. Vegetation Treatments: provides ideas for localized hazardous fuels treatments.</p>	<ul style="list-style-type: none"> -improve homeowners defensible space -removal of hazardous fuels around residences -improving access and egress for emergency service vehicles -community education on vegetation treatments -reduce hazards near community/village improvements -logging -thinning -slash treatments for all landowners (public and private) - hazard fuel reduction -biomass - pruning, -prescribed burns -Yard maintenance for fuel breaks -herbicide treatments to control vegetation -fire break maintenance -biomass harvesting -mowing lawns around structures -Tree removal -weed control

3. NFDRS National Fire Danger Rating System

Narrative of Predominant Fuel Model Descriptions present in Itasca County, described on NFDRS Fuel Model Map

Fuel Model B – Mature, dense fields of brush 6 feet or more in height are represented by this fuel model. One-fourth or more of the aerial fuel in such stands is dead. Foliage burns readily. Model B fuels are potentially very dangerous, fostering intense, fast spreading fires.

Fuel Model E – Use this model after fall leaf fall for hardwood and mixed hardwood conifer types where the hardwoods dominate. The fuel is primarily hardwood leaf litter. Fuel Model E best represents the oak-hickory types but E is an acceptable choice for northern hardwoods and mixed forests. In high winds, the fire danger may be underrated because rolling and blowing leaves are not accounted for. In the summer after the trees have leafed out, Fuel Model E should be replaced by Fuel Model R.

Fuel Model G – Fuel Model G is used for dense conifer stands where there is a heavy accumulation of litter and down woody material. Such stands are typically over mature and may also be suffering insect, disease, wind or ice damage—natural events that create a very heavy buildup of dead material on the forest floor. The duff and litter are deep and much of the woody material is more than 3 inches in diameter. The undergrowth is variable, but shrubs are usually restricted to openings. Types meant to be represented by Fuel Model G are spruce, wind thrown or bug killed stands of pine and spruce/fir.

Fuel Model H – The short-needled conifers (white pines, spruces, larches, and firs) are represented by Fuel Model H. In contrast to Model G fuels, Fuel Model H describes a healthy stand with sparse undergrowth and a thin layer of ground fuels. Fires in the H fuels are typically slow spreading and are dangerous only in scattered areas where the downed woody material is concentrated.

Fuel Model L – This fuel model is meant to represent grasslands vegetated by perennial grasses. The principal species are coarser. Shrubs and trees occupy less than one-third of the area. The quantity of fuels in these areas is more stable from year to year.

Fuel Model N – This fuel model was constructed specifically for the sawgrass prairies of south Florida. It may be useful in other marsh situations where the fuel is coarse and reed like. This model assumes that one-third of the aerial portion of the plants is dead. Fast-spreading, intense fires can occur over standing water.

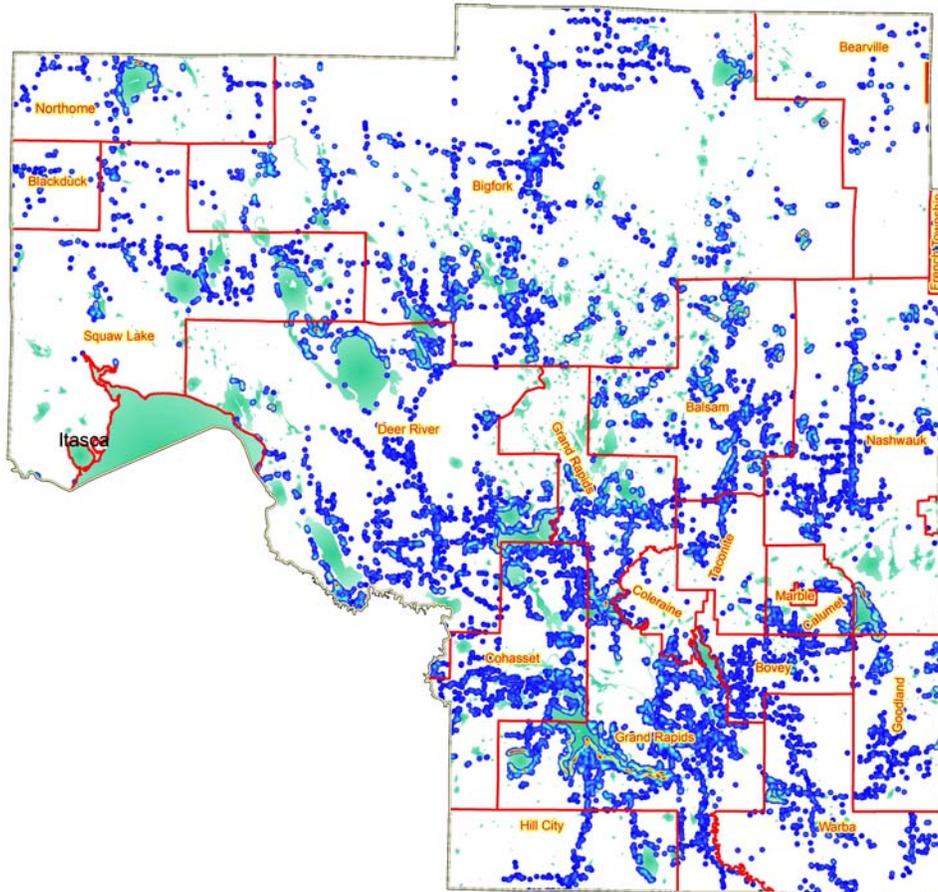
Fuel Model Q – Upland Alaska black spruce is represented by Fuel Model Q. The stands are dense but have frequent openings filled with usually inflammable shrub species. The forest floor is a deep layer of moss and lichens, but there is some needle litter and small diameter branch wood. The branches are persistent on the trees, and ground fires easily reach into the crowns. This fuel model may be useful for jack pine stands in the Lake States. Ground fires are typically slow spreading, but a dangerous crowning potential exists.

Fuel Model R – This fuel model represents the hardwood areas after the canopies leaf out in the spring. It is provided as the off-season substitute for Fuel Model E. It should be used during the summer in all hardwood and mixed conifer-hardwood stands where more than half of the over story is deciduous.

Fuel Model T – The bothersome sagebrush-grass types of the Great Basin and the Intermountain West, lowland brush /grasses, are characteristic of T fuels. The shrubs burn easily and are not dense enough to shade out grass and other herbaceous plants. The shrubs must occupy at least one-third of the site or the A or L fuel models should be used. Fuel Model T might be used for immature scrub oak and desert shrub associations in the West and the scrub oak-wire grass type of the Southeast.

Fuel Model U – This fuel model represents the closed stands of western long-needled pines. The ground fuels are primarily litter and small branch wood. Grass and shrubs are precluded by the dense canopy but may occur in the occasional natural opening. Fuel Model U should be used red pine stands of the Lake States.

4. Itasca County Level 1 Status Map



Legend

0 2 4 8 12 16 Miles

03.17.06 Level 1 DSM

Modelled Risk

- Extreme Risk
- Low Risk

- Interstate
- Federal Trunk
- State Trunk
- County State-Aid Highways
- Fire Department Boundaries
- County Boundaries
- Lake, Pond, Stream, River

Map by:
William Glesener,
DNR Firewise Specialist
April 18, 2006

In cooperation with:

5. Grant and Funding Opportunities

Northeastern Area Non-Formula Funding Opportunities

FY2006 (Amounts and Dates May Change Annually)

Forest Health Program	
Forest Health Monitoring – Evaluation Monitoring	
Purpose:	Evaluate forest health problems detected on existing FHM plots that: 1) are not well understood or 2) are fire-related.
Amount Available:	\$700,000 Base EM (\$240,138 current projects, and \$459,862 new projects to include \$150,000 regional projects). \$576,000 Fire Plan EM (\$267,608 current projects and \$308,392 new projects).
Eligibility:	Any organization: state cooperators, universities, other governments, scientists, etc.
Timing:	The St. Paul Field Office actively solicits projects and a call letter is also sent out about Sept. 15. A review process is conducted in Oct. to select the top proposals for competition at the National level. Those projects that are more regional in scope can be selected for consideration at the Regional level. Projects are selected in January and funding is awarded when the final national budget allocations are made.
Match:	Not required for projects within Forest Service, but for projects outside 50/50.
Contact:	Manfred Mielke, St. Paul Field Office, 651/649-5267. mmielke@fs.fed.us FHM website: http://na.fs.fed.us/

Minnesota Firewise Program

Minnesota Department of Natural Resources, Division of Forestry

Purpose:	Promote education and reduction of wildfire hazard risk to communities, primarily through fuel reduction, and reduction of structural ignitability. Helps communities identify their wildland fire hazard risks and where the Wildland Urban Interface occurs.through wildland fuel mitigation, homeowner homesite fuel mitigation, reduction of structural ignitability, reduction of open burning and use of alternatives such as composting, burn sites, and other fuel reduction projects. The Firewise Program offers information, programming, and resources for communities to achieve Reduction of Wildfire risk as well as grants for many projects to do so.
Amount Available:	Varies by grant year.
Eligibility:	Organized townships, fire districts, cities and counties in the State of Minnesota with a Certified Community Wildfire Protection Plan or a minimum of a County Emergency Management Plan that addresses Wildfire concerns.
Timing:	Grants can be applied for at any time with a duration maximum of 18 months.
Match:	50/50
Contact:	Pegg O’Laughlin Julson, MN DNR Forestry, Community Firewise Specialist, 7754 Town Rd 293, P.O. Box 127, Big Falls, MN 56627, 218/276-2245. pegg.julson@dnr.state.mn.us , Website: http://www.dnr.state.mn.us/Firewise

National Firewise Program

National Wildland/Urban Interface Fire Program -Wildland/Urban Interface Working Team (WUIWT) of the National Wildfire Coordinating Group

Purpose:	The National Firewise Communities program is a multi-agency effort designed to reach beyond the fire service by involving homeowners, community leaders, planners, developers, and others in the effort to protect people, property, and natural resources from the risk of wildland fire - before a fire starts. The Firewise Communities approach emphasizes community responsibility for planning in the design of a safe community as well as effective emergency response, and individual responsibility for safer home construction and design, landscaping, and maintenance.
Amount Available:	Provides multiple resources for communities to use in becoming a Firewise Community including resources for the Homeowner, the Firefighter, Firewise Newsletters, Wildfire News and Notes, Interactive Firewise Videos, Photos, Screensavers, Learning Center workshop series, Educator Resources such as on-line Curricula, Educational Websites, Interactive Exercises, Latest updates on conferences and events, a Forum, Chat Room, Chat Transcripts; Ask an Expert and a Library and Catalogue of National Firewise brochures, CD's, DVD's, Videos, Books, brochures, Artwork, Practical Firewise Information, Volunteer Forms and more.
Eligibility:	Local governments, townships, fire departments, communities at risk for wildland urban interface fires within the state of Minnesota who have a Community Wildfire Protection Plan or at a minimum a County Emergency Management Plan that addresses Wildfire and Wildland Urban Interface Fire Concerns; located in Minnesota or Minnesota Communities identified as "at risk" communities by the Statewide Wildfire Hazard Risk Assessment.
Timing:	Varies by State
Match:	unknown
Contact:	http://www.firewise.org

Special Technology Development Projects - STDP

Purpose:	Restore and protect the health of America's forests through rapid implementation of research findings.
Amount Available:	Funding varies by budget year. Historically, about \$1 million nationally for new and continuing projects.
Eligibility:	Any organization can apply for funding, but each proposal needs a Forest Health Protection staff member as the lead contact.
Timing:	Call letter in July. Pre-proposals due in mid-August. Selected proposals (up to 5 from NA) due in October. Proposals ranked in December.
Match:	No set amount, but some contribution required.
Contact:	Michelle Frank, Area Office, Newtown Square, PA, 610/557-4113. mfrank@fs.fed.us website: http://stdpweb.fs.fed.us/stdp/

Urban and Community Forestry

National Urban and Community Forestry Advisory Council – NUCFAC

Purpose:	Categories: Change annually. Past categories included Education, Communication, and Outreach Projects; Research and Technology Development Projects; and Urban and Community Forestry for and with Underserved Populations.
Amount Available:	Approximately \$1 million nationally.
Eligibility:	Any non-federal organization. Collaboration with Federal agencies is encouraged.
Timing:	Request for Pre-proposals first week of September. Pre-proposals due in November, reviewed in February. Full proposals due in April. Selections made in June. Funding available by September.
Match:	50/50
Contact:	Suzanne del Villar, Executive Assistant to NUCFAC, 909/585-9268. sdelvillar@fs.fed.us NUCFAC website: http://www.treelink.org/nucfac

Urban and Community Forestry - continued

Midwest Center for Urban and Community Forestry

Purpose:	Promote improved health, natural resource protection, and better management of urban forests through partnerships, innovative technologies, and cooperative programs.
Amount Available:	Unknown
Eligibility:	State and local governments, universities, and non-profits located in the 7 midwestern states or that partner with organizations in the Midwest.
Timing:	Call letter sent Aug./Sept. Pre-proposals due Oct./Nov. Pre-proposals ranked in December.
Match:	50/50
Contact:	Jill Mahon, St. Paul Field Office, 651/649-5253. jilljohnson@fs.fed.us Website: http://na.fs.fed.us/urban

Economic Action Programs

Wood Education and Resource Center

Purpose:	Focus on projects to enhance opportunities for sustained forest products production for primary and secondary hardwood industries located in the eastern hardwood forest region. Priority will be given to proposals that accomplish one or more of the following: maintain the economic competitiveness of hardwood industries; bring marketing and processing information and technology to existing and emerging wood products businesses including urban wood and hazardous fuels projects, and use of biomass as an energy source; encourage the adoption of new technologies; support entrepreneurs and start-up businesses; and address global issues such as phytosanitation of wood packaging materials and invasive species such as the emerald ash borer.
Amount Available:	Amount varies by budget year. Focus on Cooperative Agreements.
Eligibility:	Anyone, with a preference for State Forestry Agency and non-profit organizations.
Timing:	Linked to the developmental needs of the WERC
Match:	50/50
Contact:	Ed Cesa, Morgantown Field Office, 304/285-1530. ecesa@fs.fed.us

Integrated Program Funding

NA/NE Civil Rights Committee Special Project Fund

Purpose:	Strengthen and enhance Area and Station civil rights outreach activities through expressed need, current emphasis, long-term value, or imaginative integration of civil rights concerns with NA/NE missions.
Amount Available:	\$15,000 Area-wide in FY2006.
Eligibility:	NA/NE staff and partners. Projects with partners must show benefits to NA/NE mission.
Timing:	Biannual grants: Spring grants call letter in February. Due date in March. Ranking of proposals in April. Fall grants call letter in September. Due date in October. Ranking of proposals in November.
Match:	Matching funds may be required from non-Forest Service entities.
Contact	Victor Mercado, Area Office, Newtown Square, PA 610/557-4036. vmercado@fs.fed.us

Cooperative Fire Protection Program

State Fire Assistance - National Fire Plan Hazard Mitigation Funds

Purpose:	Support state coordinated hazard mitigation activities in the wildland-urban interface, focused on reducing property loss, decreasing fuels hazards, and increasing public awareness, developing fire plans and citizen-driven solutions in rural communities.
Amount Available:	\$3 million Area-wide.
Eligibility:	State Forestry agency or any nonprofit organization authorized by the State Forestry Agency. Focus on high risk Wildland Urban Interface communities.
Timing:	Call letter in late September/early October. Proposals due mid-December. Ranked in January.
Match:	50/50
Contact:	Alan Zentz, Area Office, Newtown Square, PA, 610/557-4108. azentz@fs.fed.us

Volunteer Fire Assistance – VFA

Purpose:	Provides funds for fire equipment, training, and initial fire department organization to fire departments serving small communities.
Amount Available:	Amounts available to states vary by budget year. Typical grants are ~\$5,000.
Eligibility:	Any fire agency or volunteer fire department that serves a community of 10,000 or less.
Timing:	Call letters vary by state. Generally initiated in the Spring. Proposal due in late Spring. Award in early Summer.
Match:	50/50
Contact:	Your State Forester - http://www.stateforesters.org/ VFA website: http://www.fs.fed.us/fire/partners/vfa/ Jan Polasky, Area Office, Newtown Square, PA, 610/557-4144. jpolasky@fs.fed.us

Rev. 2/6/06

Fire Management Assistance Grant Program

FEMA (Federal Emergency Management Agency)

Purpose: Grants for the mitigation, management, and control of fires on publicly or privately owned forests or grasslands, which threaten such destruction as would constitute a major disaster.

Amount Available: The FMAGP provide a 75 percent Federal cost share for actual eligible costs incurred. Eligible costs include:

- Costs for equipment and supplies (less insurance proceeds);
- Costs for emergency work (evacuations and sheltering, police barricading and traffic control, arson investigation);
- Costs for State emergency operations center (when used as a Unified Command Center);
- Costs for the pre-positioning of Federal, out-of State, and international resources for up to 21 days;
- Cost of personal comfort and safety items for firefighter health and safety;
- Costs for field camps and meals in lieu of per diem;
- Costs for mobilization and demobilization costs;
- Costs for the temporary repair of damage cause by firefighting activities;
- Costs for the mitigation, management, and control of declared fires burning on co-mingled Federal land, when such costs are not reimbursable by another Federal agency.

Eligibility: Fire Management Assistance is available to States, local and tribal governments.
Eligible firefighting costs may include expenses for field camps; equipment use, repair and replacement; tools, materials and supplies; and mobilization and demobilization activities.

Timing: The Fire Management Assistance declaration process is initiated when a State submits a request for assistance to the FEMA Regional Director at the time a "threat of major disaster" exists. The entire process is accomplished on an expedited basis and a FEMA decision is rendered in a matter of hours.

Match: (FMAGP) provides a 75 percent Federal cost share and the State pays the remaining 25 percent for actual costs.

Contact: Apply by Phone:

- Call 1-800-621-FEMA (3362).
- Call TTY 1-800-462-7585 for people with speech or hearing disabilities.

Those who encounter difficulties while registering online can call the FEMA Technical Helpdesk toll-free 1-800-745-0243, during regular telephone registration hours. This number is for technical assistance only
[Apply Online](http://www.fema.gov/assistance/index.shtm) <http://www.fema.gov/assistance/index.shtm>

Assistance to Firefighter's Grant Program

Homeland Security

Purpose: Grants are awarded to fire departments to enhance their ability to protect the public and fire service personnel from fire and related hazards. Three types of grants are available: Assistance to Firefighters Grant (AFG), Fire Prevention and Safety (FP&S), and Staffing for Adequate Fire and Emergency Response (SAFER). The Website provides a description of the three types of grants available and offers resources to help fire departments prepare and submit grant requests.

Amount Available: Unknown.

Eligibility: All volunteer and combination fire departments may apply for either or both of the two grant program activities. Volunteer firefighter interest organizations are eligible for funding only in the Recruitment and Retention of Volunteer Firefighters Activity. Career fire departments are eligible for funding only in the Hiring of Firefighters Activity.

Timing: 2006 Application Deadline dates: From 8 a.m. (EDT), May 30, 2006, until 5 p.m. (EDT) on June 30, 2006.

Match: Recipients of grants in the Hiring of Firefighters Activity must commit to a 5-year period of performance during which the Federal contribution toward the costs of the salaries will diminish over the course of the performance period. No Federal funds will be provided in Year Five. Therefore, each applicant must certify that its governing body has been informed of its intention to submit a SAFER grant application, that the local governing body acknowledges the commitment under the grant, and that appropriate financial support will be secured for the applicant's cost-sharing obligations.

There is no local match requirement for the Recruitment and Retention of Volunteer Firefighters Activity and there are no maximum Federal share limits

Contact:

Region 5 - Serving IL , IN, MI, MN, OH, WI	
Steve Dumovich	Vikki Hanson
536 S. Clark Street	Victoria.hanson@dhs.gov
Suite 608	Ph: 312-408-5327
Chicago , IL 60605	
Steve.dumovich@dhs.gov	Lori Smith
Ph: 312-408-5588	Lori.smith@associates.dhs.gov
Fax: 312-408-5222	Ph: (217) 558-0329
	Fax: 217-785-4715

<http://www.firegrantsupport.com/afg/>

6. References

Anderson, H.E. 1982. Aids to Determining Fuel Models for Estimating Fire Behavior. USDA Forest Service General Technical Report INT-122, Intermountain Forest and Range Experiment Station, Ogden, Utah. 22p

Itasca County Land Department. Itasca County Biophysical Project – Unpublished Documents, Grand Rapids, Minnesota.

MN DNR Division of Forestry. Fire Management Program Documents, Grand Rapids, Minnesota

7. Additional Information

For the Itasca County Community Wildfire Protection Plan: www.co.itasca.mn.us

For an electronic copy of the CWPP Handbook visit: www.safnet.org/policyandpress/cwpp.cfm

For more information about Community Wildfire Protection Plans and their development see www.fireplan.gov/contents/reports

For a Communities At Risk Field Guide:
[www.stateforesters.org/reports/COMMUNITIES AT RISKFG.pdf](http://www.stateforesters.org/reports/COMMUNITIES_AT_RISKFG.pdf)

For localized information about Minnesota fire activity and fire conditions log onto www.mnics.org. This interagency website contains state and national daily wildfire situation updates, wildfire location maps, fire weather forecasts, National Weather Service homepages, statewide fire danger ratings, wildland fire training courses, and other wildfire related links such as the MNICS agencies, National Firewise, and the Smokey Bear website.

Other web site information:

USDA Forest Service

Northeastern Area, State and Private Forestry
www.na.fs.fed.us

USDA Forest Service

Northeastern Area, State and Private Forestry
St. Paul Field Office (assisting Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Wisconsin) www.na.fs.fed.us/spfo/

St. Paul Field Office staff directory:
www.na.fs.fed.us/spfo/staff/staffdir/who.htm

Communities At Risk Field Guide:

[www.stateforesters.org/reports/COMMUNITIES AT RISKFG.pdf](http://www.stateforesters.org/reports/COMMUNITIES_AT_RISKFG.pdf)

Healthy Forest Initiative Implementation Guide:

www.fs.fed.us/projects/hfi/field-guide/

Fire Safe Councils: www.firesafecouncil.org

National Association of State Fire Marshals: www.firemarshals.org

Federal Emergency Management Agency: www.fema.gov

Minnesota DNR Firewise Website: <http://www.dnr.state.mn.us/Firewise>

Firewise addresses the risk of homes in the wildland/urban interface to wildland fire. As more homes are built in the woods and fields of Minnesota, the existing firefighting resources are less able to protect everyone's property while trying to control a wildfire.

Homes close to evergreens and the tall grasses of prairies or marshes are most at risk. Making your home able to survive an approaching wildfire is the goal of the Firewise program.

Minnesota has adopted the national Firewise program. From the Mn Firewise website listed above, you will find links to some of the national Firewise sites and all of the Minnesota related Firewise sites, plus general wildfire information.

Minnesota Department of Natural Resources (MN DNR) website:

<http://www.dnr.state.mn.us>

From this location you will find links to all of the Divisions within the state DNR agency including: Ecological Services, Enforcement, Fish and Wildlife, Forestry, Lands and Minerals, Parks & Recreation, Trails & Waterways, and Waters.

MN DNR Forestry Fire Website: <http://www.dnr.state.mn.us/forestry/fire>

As Minnesota's primary agency responsible for wildland fire, the DNR Forestry Fire website provides daily forestry wildfire updates by forestry area, fire maps, fire conditions in the state, where current fires are burning, fire weather conditions and forecasts, fire danger indices, links to the National Weather Service, wildland fire training information, BWCAW blowdown information, and other fire related links.

Homeland Security and Emergency Management:

<http://www.hsem.state.mn.us/>

Smokey Bear Official Website: <http://www.smokeybear.com/>

Rural Fire Assistance website:

<http://www.dnr.state.mn.us/grants/ruralfire/index.html>

Minnesota Wildfire Law website: <http://www.revisor.leg.state.mn.us/stats/88/>

Great Lakes Forest Fire Compact website: <http://www.glffc.com/>

Eastern Area Coordination Center website: <http://gacc.nifc.gov/eacc/>

This website is an interagency incident support website of which the state of MN is part.