COMMUNITY WILDFIRE PROTECTION PLAN FOR THE TOWNS OF BARNES AND DRUMMOND IN NORTHWESTERN WISCONSIN

DECEMBER 2005

PREPARED BY:
THE NORTHWEST REGIONAL PLANNING COMMISSION

BARNES-DRUMMOND COMMUNITY WILDFIRE PROTECTION PLAN

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I. INTRODUCTION AND BACKGROUND

INTRODUCTION

Recent wildfire events in the State of Wisconsin and across the country have heightened awareness of the destructive potential of wildfire. Residents of Barnes and Drummond and local community leaders have become increasingly aware of the tangible wildfire threat facing their communities. In light of this threat, the Towns have elected to engage in a collaborative planning process with state, county and Federal partners to identify strategies and priorities for the protection of life, property, and natural resources.

This region of Northwestern Wisconsin has some of the largest contiguous tracts of pine forest found in the state. Of particular concern are the large areas of fire prone jack pine. Windstorms are common in this area, which has seen numerous major storm events, including a July 1999 windstorm which resulted in large areas of blown down timber. It is feared that prolonged dry conditions, such as those experienced across much of the region in 2005 could desiccate fuels and further elevate the risk of wildfire.

The communities of Barnes and Drummond are growing, with increasing numbers of people residing and recreating on the forest. Most wildfires in Wisconsin, including the project area are caused by the actions of man. As human encroachment on wildlands and forest usage increases, so does the risk that a wildfire may start.

The Barnes-Drummond Community Wildfire Protection Plan is a community-based collaborative effort between the local governmental units, state and federal agencies, and Bayfield County. This plan will provide the local communities with an opportunity to influence where and how county, state and Federal agencies implement fuel reduction projects on surrounding lands. As well, the collaborative approach to preparing the plan ensures successful implementation of the plan's mitigation action plan. Furthermore, adoption of the plan will allow the communities to apply for Federal funding for hazardous fuels reduction and wildfire prevention.

PURPOSE

The purpose of this plan is to give the communities of Barnes and Drummond, local fire departments, Bayfield County, the Wisconsin Department of Natural Resources and USDA Forest Service the information and tools necessary to reduce the potential risks to the community from the devastating effects of wildfire. The plan seeks to establish priorities for protection of life, property and critical infrastructure within the wildland-urban interface (WUI), or the areas where human development intermixes with wildland vegetation and fuels.

This plan is a Community Wildfire Protection Plan (CWPP) as defined by the Federal Healthy Forests Restoration Act of 2003 (HFRA). Title I of the HFRA defines a CWPP as a plan for an at-risk community that –

(A) is developed within the context of the collaborative agreements and the guidance established by the Wildland Fire Leadership Council and agreed to by the applicable local government, local fire department, and state agency responsible for forest management, in consultation with interested parties and the Federal land management agencies managing land in the vicinity of the at-risk community;
(B) identifies and prioritizes areas for hazardous fuel reduction treatments and recommends the types and methods of treatment on Federal and non-Federal land that will protect 1 or more at-risk communities and essential infrastructure; and
(C) recommends measures to reduce structural ignitability throughout the at-risk community.

The HFRA establishes three minimum requirements for a CWPP. The first requirement is for collaboration in plan development. A CWPP must be developed as a collaborative effort between local and state government, in consultation with Federal Agencies and other interested parties. A CWPP must identify and prioritize areas for hazardous fuels reduction treatments and recommend types and methods of treatment that will protect one or more at-risk communities and critical infrastructure. Finally, a CWPP must recommend measures which private landowners and communities can utilize to reduce the ignitability of structures within the planning area.

Furthermore, HFRA provides communities with opportunities to influence where and how Federal agencies implement hazardous fuels reduction projects on Federal lands and how other Federal funds may be allocated for other projects on non-Federal lands.

HFRA also establishes that the contents of the final plan must be mutually agreed upon by the participating local units of government, the local fire departments and the state entity responsible for forest management.

PLANNING OBJECTIVES

This plan has two primary objectives, which are identified under sections (A) and (B) of the HFRA definition. The first objective is to identify and prioritize the surrounding area, both Federal and non-Federal lands, for hazardous fuel reduction treatments, as well as recommending measures for achieving hazardous fuels reductions. The plan addresses this objective through a comprehensive risk assessment and analysis and the development of standards and guidelines for hazardous fuels reductions. The second objective is to recommend measures for reducing structural ignitability throughout the at-risk area, which the plan addresses in a comprehensive mitigation action plan. Additionally, it is an objective of this process to improve interagency coordination and cooperation in wildfire planning and protection. The mix of ownership and jurisdictions

within project area pose great challenges for coordination, but also offers opportunities for utilizing the strengths of each agency to improve overall preparedness.

While the risks of wildfire will never be totally eliminated, it is recognized that the actions taken by resource management agencies, county, Federal, state and local units of government and private landowners can greatly reduce the risk of wildfire and its impact on the community.

WILDFIRE PLANNING HISTORY

This planning project is the result of series of investigative actions and initiatives set forward by Federal, state and local resource management agencies, county and local government and local emergency response personnel in response to an expressed need to reduce the risks to life, property and infrastructure from the potential effect of wildfire. The following text is a general synopsis of the events leading to the development of a Community Wildfire Protection Plan for the communities of Barnes and Drummond in Bayfield County, Wisconsin.

Initiating the Process

In late spring of 2004, The Washburn District hosted a meeting with the Wisconsin Department of Natural Resources and Bayfield County Forestry to determine knowledge, interest and applicability of the *Healthy Forests Initiative* (HFI) and the *Healthy Forests Restoration Act* (HFRA). Following this meeting, it was determined that there was sufficient interest to collaborate and follow the guidelines of the National Association of State Foresters (NASF) to identify and prioritize risk areas.

Identifying and Prioritizing Communities

The planning team prioritized the “at-risk” Bayfield County communities according to factors including amount of public lands, fire history, fuel model types and housing density. A GIS model was developed and analyzed resulting in Barnes and Drummond receiving the highest priorities. Furthermore, the Forest Service believed that there were continued opportunities for hazardous fuels reduction projects in Drummond. The WDNR also felt strongly that the Town of Barnes has very high-risk housing development.

In September of 2004, the WDNR and Bayfield County organized a field trip to the Town of Barnes to examine wildfire related issues such as road design, signage, road width and emergency vehicle access. The group also toured the Potawatomi Estates residential development and identified road access issues.

Based on information collected, it was determined that a Community Wildfire Protection Plan was needed for the Town’s of Barnes and Drummond. The planning team determined that a single plan could be created for both jurisdictions due to their proximity to one another and the emergency resources shared between them.

The Pre-Planning Process

A pre-planning process began in November of 2004, with the development of project goals, timeline and general work plan. The planning team retained the Northwest Regional Planning Commission as a planning facilitator and project coordinator. Funding for the proposal was secured through the Department of Natural Resources.

In December of 2004, the planning team decided to proceed forward with the project and to engage the local Town Boards and fire departments. In January of 2005, representatives of the planning team attended Town Board meetings to outline the proposal and to solicit local participation. In February of 2004, the planning team presented a formal presentation to local community leaders and fire departments. Again, the group sought participation from local entities and requested each partnering community and fire department appoint a member to serve on a formal Community Wildfire Protection Planning committee.

The Town's of Barnes and Drummond, along with their respective fire departments formally agreed to participate in the development of a Community Wildfire Protection Plan. The communities designated planning committee representatives and the formal process was initiated with a kick-off meeting in May of 2005.

II. PLANNING PROCESS DESCRIPTION

The Steering Committee created in May of 2005 was the principal body directing plan development. The members of this committee are listed below. The composition of the committee included representatives from the local jurisdictions, Wisconsin Department of Natural Resources, US Forest Service, and Bayfield County. Representatives from the Northwest Regional Planning Commission (NWRPC) facilitated committee meetings and drafted plan narrative. Select members of the Steering Committee were granted voting privileges as part of an "Executive Committee," which was formed to make critical decisions using a consensus based approach.

Using other CWPP planning processes as a guide, NWRPC developed a model which could be accomplished an 8-month timeframe. Planning milestones were established based on the CWPP requirements outlined in the HFRA.

From May of 2005 through December of 2005, a total of 8 Steering Committee meetings were held. Meeting locations alternated between the Town of Barnes and the Town of Drummond. Agenda and minutes of each regular Steering Committee meeting are contained within the Appendix.

At each meeting the Committee engaged in open discussion and commentary relative to the pertinent issues and action items described in the meeting agenda. Early efforts focused on establishing goals and objectives, defining the WUI, describing existing conditions and mapping planning units. Middle stages of the process involved developing a hazard assessment model. Using Committee defined inputs, and data provided by the participants, a series of models were developed by NWRPC and presented to the Committee for discussion and revision. The later stages of the process focused on the development of a hazardous fuels reduction projects and general wildfire mitigation actions.

The draft plan was presented to and formally adopted by the Drummond Town Board of Supervisors on 12-24-2005 and the Barnes Town Board of Supervisors on 12-20-2005.

BARNES-DRUMMOND CWPP STEERING COMMITTEE

Jay Gallagher	Wisconsin Department of Natural Resources
Al Tatzel	Wisconsin Department of Natural Resources
Don Luebbe	Wisconsin Department of Natural Resources
Tom Salzmann*	Wisconsin Department of Natural Resources
Jack Meinke*	Town of Barnes
Del Jerome*	Town of Drummond
Mark Jerome*	Town of Drummond - Fire
Dick Collyard	Town of Barnes
Dixie Chermack	Town of Barnes
Tom Renz*	Town of Barnes-Fire
Neil Paulson*	Bayfield County
Jan Victorson	Bayfield County Emergency Management
Kirby Dernovsek*	Bayfield County Forestry
Chris Worth*	US Forest Service
Jerry Jaskowiak	US Forest Service
Jennifer Maziasz	US Forest Service
Cheri Ford	US Forest Service
Scott Posner	US Forest Service

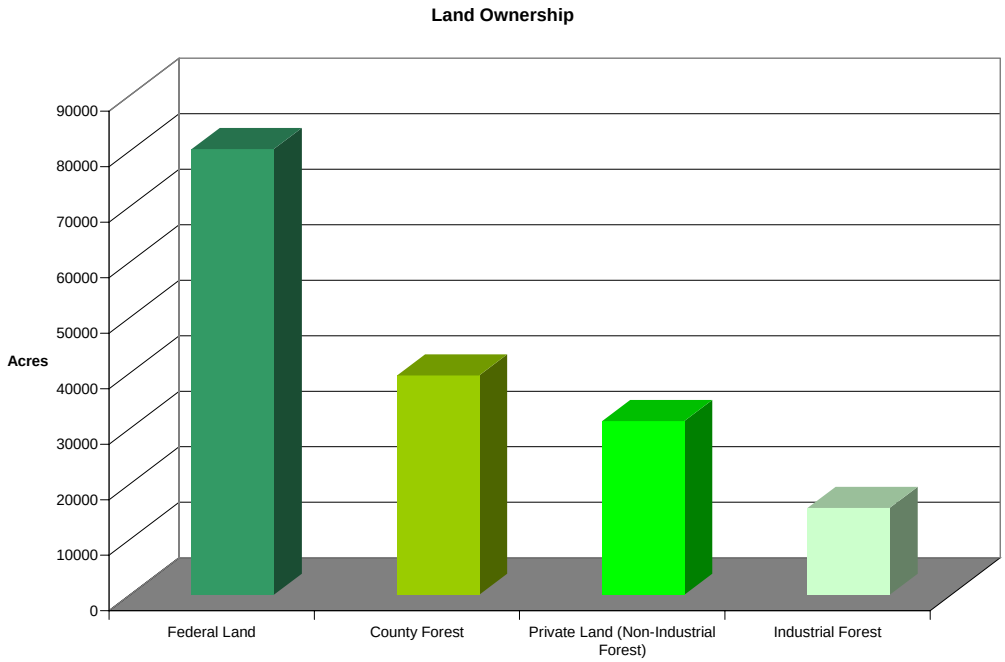
*Executive Committee Member

III. PROJECT AREA

GENERAL DESCRIPTION

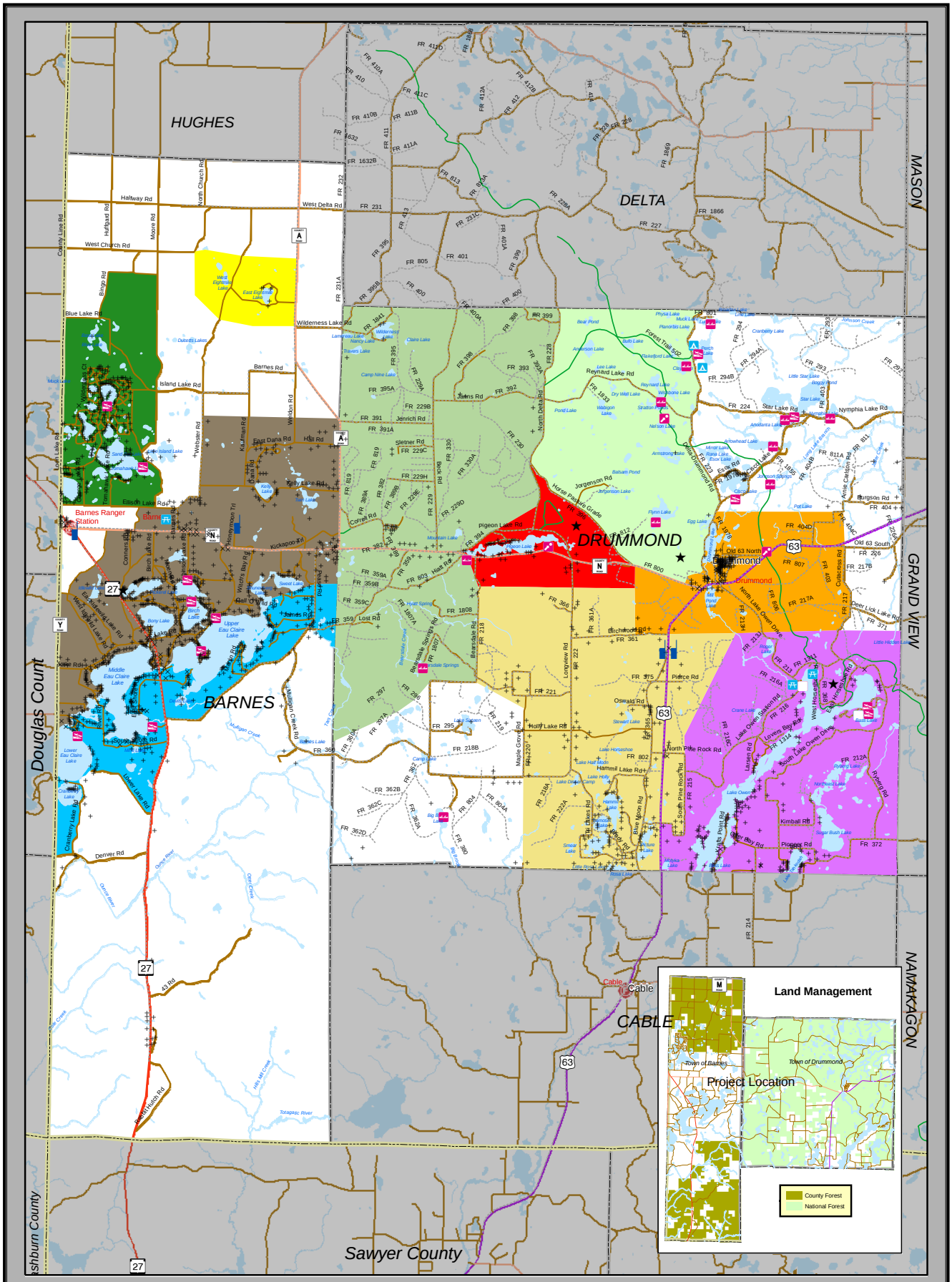
The project area is located approximately 60 miles southeast of Duluth, Minnesota in southwestern Bayfield County of northern Wisconsin. Communities within the project area include the civil Towns of Barnes and Drummond and two unincorporated places. Total land area within the project boundary is roughly 171,056 acres, which includes 119,794 acres of publicly owned and managed lands. The project area is depicted in **Map 1**, Community Base Map.

Figure 1, Barnes-Drummond Land Ownership



CLIMATE

Climate conditions within the project area are classified as continental, with long, cold winters and relatively short, warm summers. Average annual precipitation is about 33 inches, with 50 to 60 inches of snowfall. The mean summertime temperature is 65 degrees, with a wintertime mean of 6 degrees. Natural variations in precipitation levels can and do occur within the project area, occasionally resulting in excessive moisture conditions, or drought. Seasonal variations in precipitation, temperature and humidity can create periods of high vulnerability to wildfire, particularly during the spring and fall.



Base Map
Map 1

Federal
State
County
Town
Trails
Homes
Business
Communication Structures
Fire Departments
Other Recreation Sites
Boat Landing
Camp Ground
Canoe Landing
Picnic Area
Trail Head
Planning Units
Wilderness Area
South Drummond
Potawatomi Estates
Pigeon Lake
Lake Owen
Forest Boundary
Eight Mile Lake
Eau Claire Lakes SOUTH
Eau Claire Lakes NORTH
Community of Drummond

Barnes - Drummond Community Wildfire Protection Plan

Northwest Regional Planning Commission

0 0.5 1 2 Miles

N

ECONOMICS

The area is predominantly rural in nature with a recreation and tourism based economy. Limited commercial and industrial development occurs within the project area, employing some local residents. The 2000 Census indicated that most project area residents worked outside of their home communities, with many commuting to areas outside of Bayfield County. In 2000, the median household income for Drummond was $37,500, while in Barnes this figure was $28,250. The median household income for Bayfield County was $33,390.

NATURAL RESOURCES

The project area is located within the heavily forested region of Wisconsin referred to as the "Northwood's". Upland forest cover encompasses approximately 154,000 acres, while wetlands occupy over 16,000 acres of the land base. Surface water resources account for the remaining 8,300 acres.

Glacial processes have heavily influenced local topography. Much of the project area is generally characterized by hilly terrain, pitted by numerous kettle lakes and wetlands. Forest cover types generally consist of mixed broad-leaved deciduous, maple, aspen, red pine and mixed coniferous species. On the relatively flat glacial sand outwashes, jack pine, red pine and shrubland species are common.

The project area is located within two primary drainage basins, Lake Superior (LS) and the Mississippi River (MR). Lands within the area are drained via portions of six major watersheds including the Upper St. Croix and Eau Claire River (MR), Totagatic River (MR), Upper Namekagon River (MR), Bois Brule River (LS), White River (LS) and Iron River watersheds (LS).

Wetlands are well distributed throughout the project area, except within the glacial sand outwash area. The dominant wetland type is forested, with emergent/wet meadow and scrub/shrub wetlands also present.

The project area supports habitat for numerous species of animals, plants and insects, including several threatened, endangered and sensitive species. A portion of eastern Drummond lies within an elk "buffer zone," established as a part of the Clam Lake experimental elk study project.

POPULATION AND GENERAL DEMOGRAPHICS

The total population of the Town's of Barnes and Drummond grew at a faster rate than that of Bayfield County during the period 1980-2000. Both municipalities are expected to increase in population through the year 2020. Current and projected population statistics are depicted in **Tables 1 and 2**.

Table 1, Population 1980-2000

	1980	1990	2000	Change
Barnes	493	473	610	+23.7%
Drummond	442	417	541	+22.4%
Bayfield County	13,882	14,008	15,103	+8.8%

Source: US Census Bureau

Table 2, Population Projections 2005-2025

	2005(EST)	2010	2015	2020
Barnes	662	763	855	946
Drummond	541	572	586	600
Bayfield County	15,652	15,643	15,986	16,319

Source: Bayfield County Land Use Plan, Wisconsin DOA

LAND USE

Table 3, Town of Barnes Existing Land Use Statistics

Land Use	Acres	Percent
Agriculture	283.9	0.4%
Commercial	263.8	0.4%
Commercial Forest	7900.5	10.5%
County Forest	38683.5	51.6%
Industrial Forest	7753.5	10.3%
Municipal/Institutional	477.0	0.6%
Other Forests	378.8	0.5%
Parks	25.9	0.0%
Private Forest	12506.9	16.7%
Private Residential	6.3	< 0.1%
Residential	6738.8	9.0%
Unknown	4.3	< 0.1%
Vacant	4.4	< 0.1%
Total	75027.6	100.0%

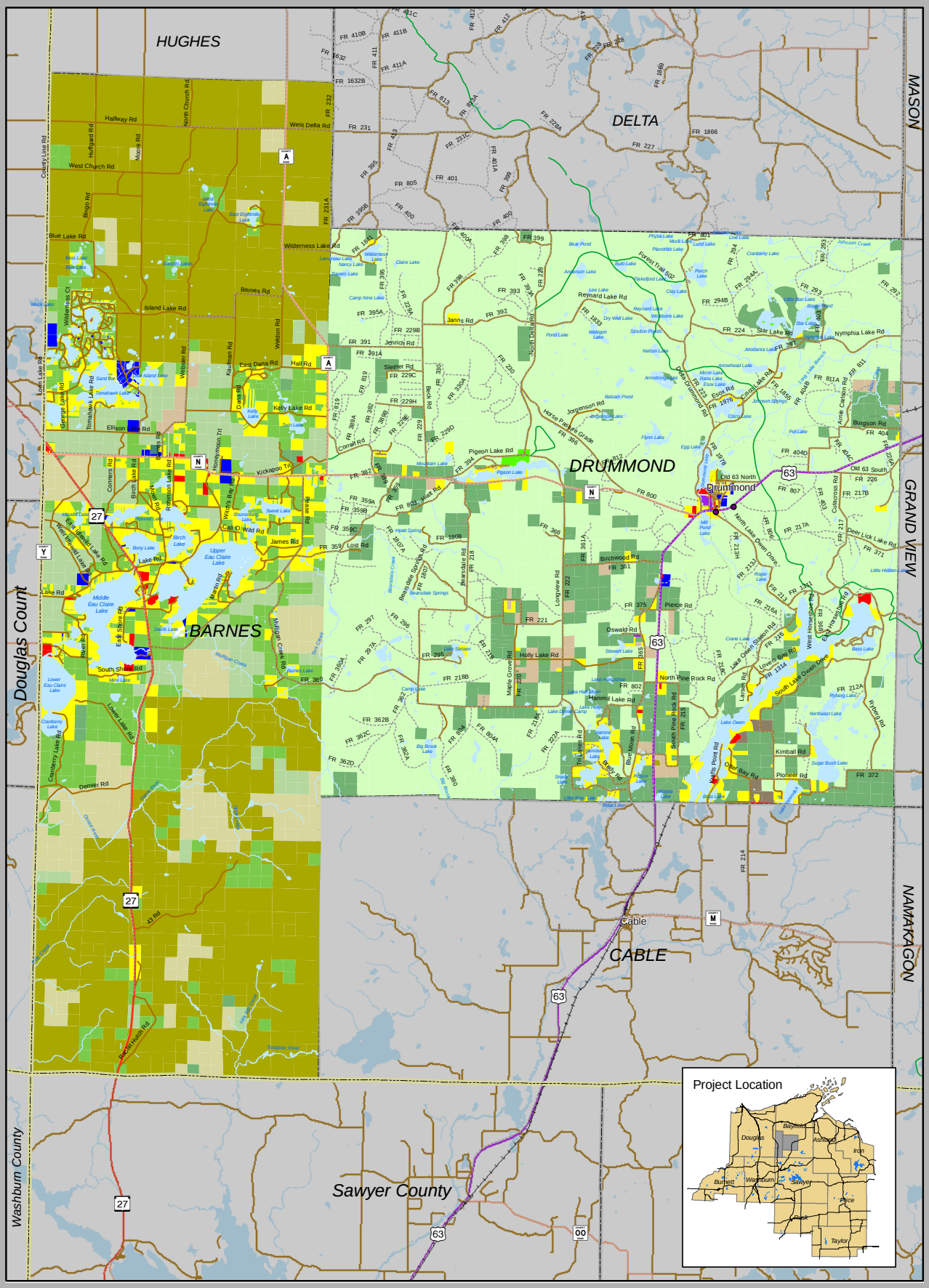
Source: Town of Barnes Comprehensive Planning Data

Table 4, Town of Drummond Existing Land Use Statistics

Land Use	Acres	Percent
Agriculture	985.7	1.1%
Commercial	156.1	0.2%
County Land	45.6	0.0%
Federal Land	72863.5	79.7%
Forest	14038.6	15.4%
Government/Institutional	78.9	0.1%
Manufacturing	35.1	< 0.1%
Open Space	202.6	0.2%
Residential	2608.7	2.9%
State Land	384.6	0.4%
Total	91399.4	100.0%

Source: Town of Drummond Land Use Plan Data

Land development within the project area has historically focused largely in and around shoreland areas. In recent years, the increased demand for waterfront property coupled with the scarcity of available waterfront on larger lakes has placed great development pressure on small sensitive lakes, streams and wetlands. At the same time, demand for rural forested land and off-water residential development has also increased significantly. Land use statistics (**Tables 3 & 4**) were extracted from the Town of Barnes Comprehensive Plan (2005) and the Town of Drummond Land Use Plan (2002). These statistics, along with the corresponding map (**Map 2**), depict the relative proportion and spatial location of given land uses present at the time the plans were created.



Existing Land Use
Map 2

Barnes - Drummond
Community Wildfire Protection Plan

Residential	Parks	Industrial Forest
Goverment/Institutional	Open Space	County Forest
Agriculture	Forest	Federal Land
Commercial	Private Forest	State Land
Manufacturing	Commercial Forest	

Source: Bayfield County Land Use Plan, Town of Barnes Comprehensive Plan.

0 0.5 1 2 Miles

HOUSING DEVELOPMENT

The density of residential housing development in shoreland areas of Barnes and Drummond is among the highest found in Bayfield County, outside of the incorporated communities. New residential units constructed are primarily retirement/second homes and seasonal/recreational houses. Additionally, a large number of seasonal homes have been converted to permanent dwelling units. Project area housing statistics are depicted below in **Tables 5-8.** Project area housing unit density is depicted in **Map 3.**

Table 5, Housing Units 1980-2000

	1980	1990	2000	Change
Barnes	1,049	1,307	1,486	+41.7%
Drummond	645	621	645	+0.0%
Bayfield County	9,642	10,918	11,640	+20.7%

Source: US Census Bureau

Table 6, Housing Units Projections 2005-2020

	2005	2010	2015	2020
Barnes	1,608	1,718	1,827	1,936
Drummond	637	637	637	637
Bayfield County	10,734	11,208	11,683	12,158

Source: Bayfield County Land Use Plan

Table 7, 2000 Census Housing Profile- Occupied Housing Units

	Total HU	Occupied	Owner	Pct	Renter	Pct
Barnes	1,486	278	248	16.7%	30	2.0%
Drummond	645	231	184	28.5%	47	7.3%
Bayfield Co.	11,640	6,207	5,127	44.0%	1,080	9.3%

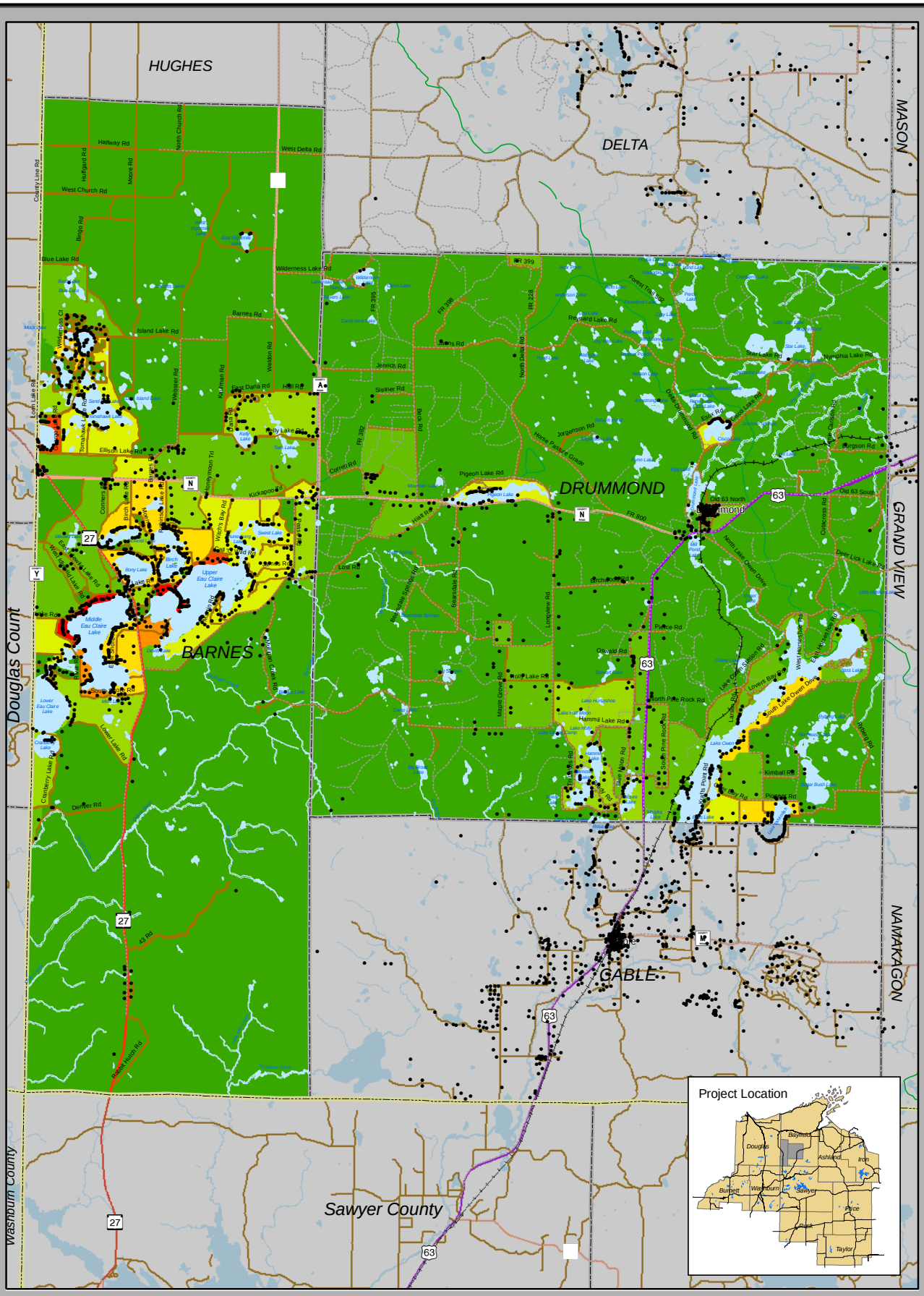
Source: US Census Bureau

Table 8, 2000 Census Housing Profile- Vacant Housing Units

	Total HU	Vacant	Seasonal	Pct	Other[1]	Pct
Barnes	1,486	1,208	1,160	78.1%	48	3.2%
Drummond	645	414	397	61.6%	17	2.6%
Bayfield Co.	11,640	5,433	4,922	42.3%	511	4.4%

Source: US Census Bureau

[1] *Includes vacant units for sale, rent, rented or sold units not occupied, and other vacant housing units*



Housing Unit Density
Based on 2000 Census Blocks

Note: Structures where derived from the parcel database using all tax classes. Parcels with an improvement value of $1000.00 or greater were represented with a "centroid" dot to indicate a structure present within the parcel.

Structures

DENSITY

- 0.0 - 4.8
- 4.9 - 16.3
- 16.4 - 33.3
- 33.4 - 58.6
- 58.7 - 94.0
- 94.1 - 127.3
- 127.4 - 231.3
- 231.4 - 369.2

Agricultural Areas

N

0 0.5 1 2
Miles

Barnes - Drummond Map 3
Community Wildfire Protection Plan

Northwest Regional Planning Commission
an economic development district

IV. WILDFIRE BACKGROUND AND HISTORY

INTRODUCTION TO WILDFIRE

On average, the United States experiences 51,656[2] wildfire events annually, consuming over 2 million acres of land. Wisconsin averages 5,000[3] wildfires annually, consuming an average of 27,000[3] acres of land. While most wildfires in Wisconsin are generally small in area, large fires can and do occur. In fact, the largest and most devastating wildfire in U.S. history occurred in Wisconsin. In October of 1871, wildfire struck the Town of Peshtigo in northeastern Wisconsin killing 1,300-1,500 people. The fire occurred at the same time as the Great Chicago Fire, which received greater publicity. The Peshtigo fire burned over 1,200,000 acres in Wisconsin and the Upper Peninsula of Michigan before it was finally extinguished by late fall rains.

FACTORS INFLUENCING WILDFIRE SUSCEPTIBILITY

Weather

Weather conditions are a significant contributing factor to wildfire susceptibility. In Wisconsin wildfire weather hazards are generally the most severe during spring, following snowmelt and prior to the “green-up” of vegetation. Rains during the spring season and new green growth lessen the likelihood that wildfires will start and spread. Weather related risk is greatest when multiple condition factors occur simultaneously.

Precipitation levels, temperature, relative humidity and wind speed are the primary factors influencing wildfire risk. Precipitation levels strongly influence the moisture content of fuels. Drought conditions and low relative humidity (a measure of the amount of water in the air compared with the amount of water the air can hold at a given temperature) can desiccate these fuels, increasing vulnerability to ignition. High temperatures also reduce fuel moisture levels and tend to “preheat” fuels, allowing them to burn and spread faster. Wind conditions are the most significant weather related factor contributing to wildfire. Windy conditions dry fuels and increase oxygen supply. With a steady oxygen supply, fuel and temperature become critical to sustaining a fire once it’s ignited. Winds also influence the direction and rate of fire spread. In Wisconsin, wind direction almost always changes in a clockwise rotation and winds tend to be the strongest in mid-afternoon.

Fuels

Fuels are combustible materials comprised of both living and dead vegetation. Wildfire is part of the natural disturbance regime which serves to reduce the amount of fuels present. These fuels have been accumulating during at least the past 50 years due to

[2] NIFC Statistic
[3] WDNR Statistic

fire suppression, forest management and other wildland management policies and practices, and other factors.

Fuel types vary in the ways they respond to fire, although all plants will burn if exposed to enough heat. Jack pine and red pine are among the most flammable forest species found in the project area conversely, deciduous species do not readily burn therefore they are not as susceptible to wildfire.

Wildland fuels can also be described using vertical separation as ground, surface, ladder and aerial fuels.

Ground fuels are comprised of combustible materials lying beneath the surface including roots, buried logs, deep duff and other organic matter. Ground fires (sometimes referred to as "bog fires") burn ground fuels and tend to smolder rather than producing much flame. These types of fires occur relatively infrequently.

Surface fuels include combustible materials lying directly above the surface such as logs, stumps, logging slash, leaves, pine needles, grass and other understory vegetation. Surface fuels are referred to as light and flashy fuels because they ignite easily and burn rapidly. Surface fires consume surface fuels and are the most common type of wildfire occurring in the in mixed forests of northern Wisconsin4. These fires are generally low intensity and do not kill mature trees, although some mortality may occur in moderate to severe surface fires.

Aerial fuels include both living and dead plant materials in the upper forest canopy. Fires which burn through the canopy are referred to as crown fires, which are the most destructive and dangerous class of wildland fire. Crown fires are also generally the most difficult fires to control. In catastrophic crown fires, tree mortality can be high. Given a pathway, intense surface fires can spread to the aerial fuels to become crown fires. Ladder fuels such as shrubs or small trees of intermediate height, act as ladders carrying the flames from the forest surface up into the tops of trees.

Topography

Topography has a strong influence on wildfire behavior. Because heat rises, up sloping fire spreads more quickly as pre-heated fuels readily ignite. It is also difficult to fight fires on steeply sloping lands. Aspect also influences wildland fire risk as southern or southwestern slopes generally have lower relative humidity and higher temperatures than those on north or northeast slopes. Because of longer and more intense solar exposure, fuels along these slopes may be drier. Consequently, fire hazard is often higher on south and southwest facing hills.

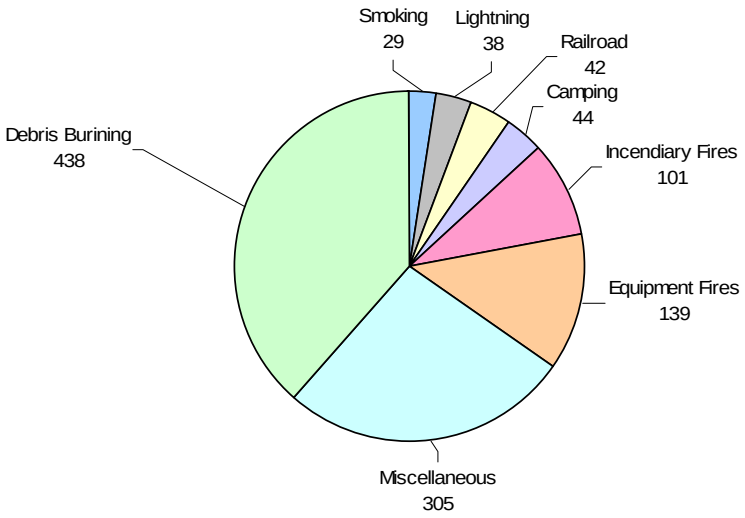
[4]" Influence of Forest Management Alternatives on the Risk of Wildfire in Northern Wisconsin," Gustafson et.al, 2003

PRIMARY CAUSES OF WILDFIRE

Debris burning is the number one cause of wildfire in Wisconsin. In 2004, the burning of brush, debris and other working fires caused more than 1/3rd of all wildland fires on lands protected by WDNR (**Figure 2**). Outdoor burning is regulated by the state, which authorizes these activities through the issuance of burning permits. Illegal burning and failure to follow the requirements of a burning permit is the cause of numerous wildfires in Wisconsin.

Other human-related causes of wildfire in Wisconsin include miscellaneous causes, equipment use, deliberately set fires (incendiary), campfires, railroads, and smoking. Lightning is the primary natural cause of wildfire in the state.

Figure 2, Wisconsin Wildfire Causes on Lands Protected by WDNR, 2004



Data Source: Bureau of Forestry, 2004

BARNES-DRUMMOND FIRE HISTORY

The Barnes-Drummond area, like much of northwestern Wisconsin, has had little recent exposure to large-scale wildfires. Fires occurring in the past 20 years have been relatively small, averaging less than 1 acre in size. **Maps 4 & 5** depict wildfire occurrences and causes within the project area from 1986 through mid 2005. The figures below (**Figures 3-6**) graphically depict select wildfire statistics for the project area based on the 1986-2005 data.

Figure 4, 1986-2005 Fire Occurrences

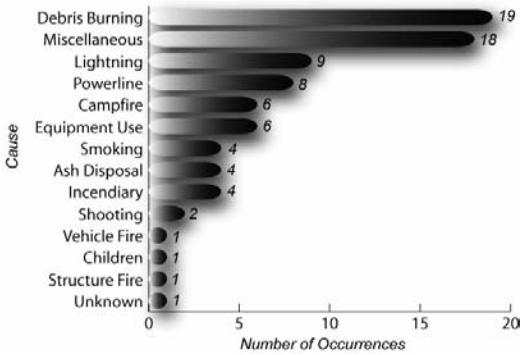


Figure 3, 1986-2005 Acres Burned

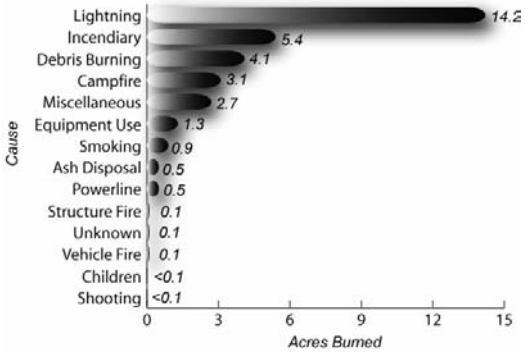


Figure 5, Fire Occurrences by Month 1986-2005

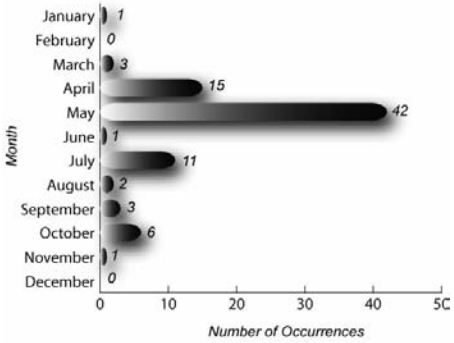
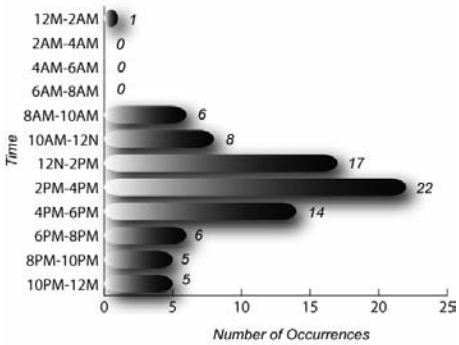
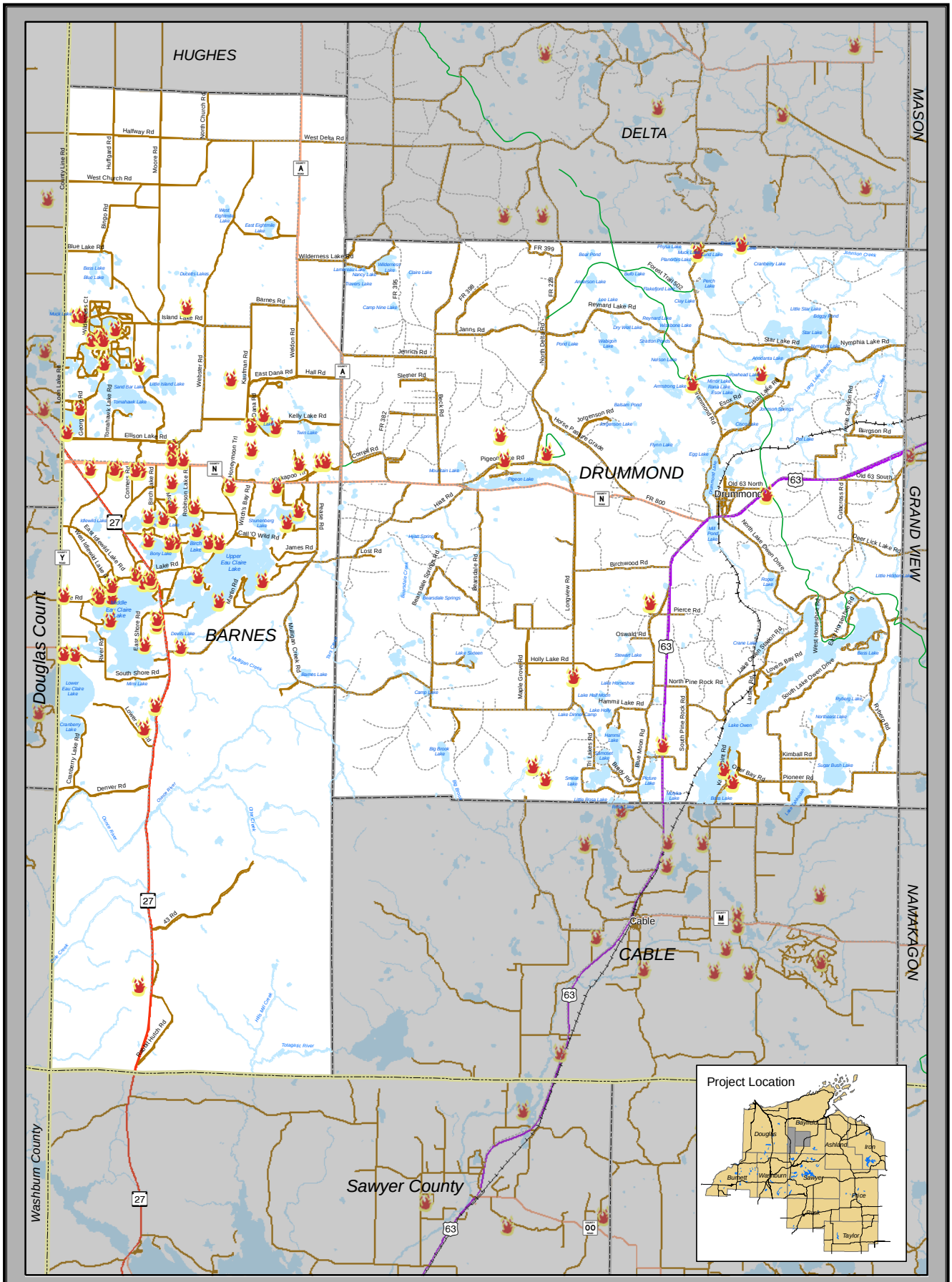


Figure 6, Fire Occurrences by Time of Day, 1986-2005



Data Sources: 1986-1996 National Fire Occurrence Database, US Forest Service, WDNR



Fire Occurrences 1986-2005
Map 4

Barnes - Drummond
Community Wildfire Protection Plan

Fire Occurrences 1986-2005

Data Source: National Fire Occurrence Database.
Fire Sciences Laboratory, Rocky Mountain Research Station,
WDNR, USFS.
Date: Aug 8, 2005

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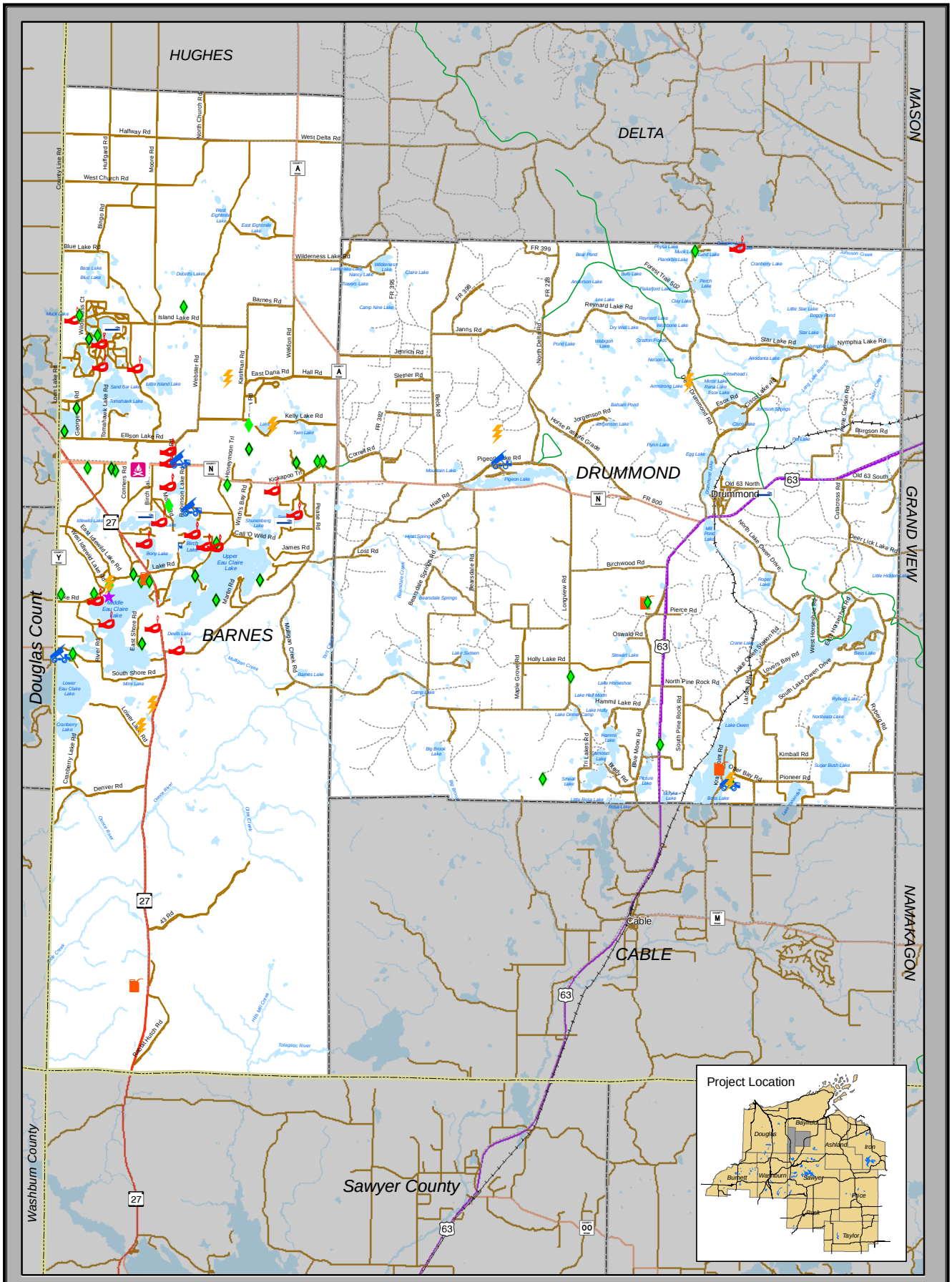
N

0 0.5 1 2 Miles



Fire Causes 1986-2005
Map 5

Barnes - Drummond
Community Wildfire Protection Plan

Cause

- Campfire
- Incendiary
- Miscellaneous
- Debris Burning
- Children
- Lightning
- Smoking
- Equipment Use

N

Data Source: National Fire Occurrence Database.
Fire Sciences Laboratory, Rocky Mountain Research Station, WDNR, USFS.

Northwest Regional Planning Commission

Date: August 8, 2005

0 0.5 1 2 Miles

HISTORIC & CURRENT FIRE REGIMES

Wildfire has been an important part of the natural disturbance and forest ecological processes in northern Wisconsin for thousands of years. Fires have shaped the forest composition by favoring certain tree and plant species, promoting nutrient recycling, and creating a large, landscape mosaic of mixed habitats for wildlife. In the historic, natural fire regime, wildfires occurred irregularly from year to year, and, varied greatly in their size and severity. The fire regime concept is a way to describe the inherent variability, extent, intensity, and role that wildfire plays in a particular ecosystem relative to its vegetation characteristics and fuel conditions.

A natural fire regime is a general classification of the role fire would play across a landscape in the absence of modern, human mechanical intervention, but including the influence of aboriginal burning (Agee, 1993; Brown, 1995). The natural or historical fire regimes are classified based on the average number of years estimated between fires (fire frequency), combined with the potential severity (amount of replacement) of the fire on the dominant vegetation (e.g. trees). Some of the prevailing fire regimes found within the planning area are depicted below in **Table 9** and **Map 6**.

Table 9, Project Area Fire Regimes

Fire Regime	Historic Fire Frequency	Historic Forest Cover Types
I	Frequent, low to moderate intensity surface fires occurring every 15-35 years, with stand-replacing fires @150 years.	Mixed white and red pine forests (with some red oak).
II	Frequent, high intensity stand replacement fires occurring every 15-50 years.	Jack pine and barrens (with some red pine)
III	Infrequent, mixed severity fires occurring @ intervals of 100-200 years.	White pine - hemlock forests
V	Very infrequent fire, typically occurring in association with a catastrophic windstorm and/or periods of extreme drought.	Northern hardwood forests, including sugar maple, beech, & hemlock.

Source: US Forest Service

Historic fire regimes in the Upper Midwest have been recently studied and characterized under a USDA and USDI Joint Fire Science Program research project using historical fire data, landscape ecosystem and biophysical data (Cleland et al, 2005). In terms of fire size, this study found that in northern Wisconsin, historical forest fires larger than 10,000 acres represented about 7 percent of the total number of fires, but accounted for nearly 60 percent of the total area burned. The frequency of these large, severely burning historic wildfires ranged from periods of a few decades within the most fire-prone ecosystems (jack pine and mixed red, white, and jack pine forests) to more than a

1,000 years within wet, relatively fire-resistant ecosystems (wetland conifer-hardwood forests).

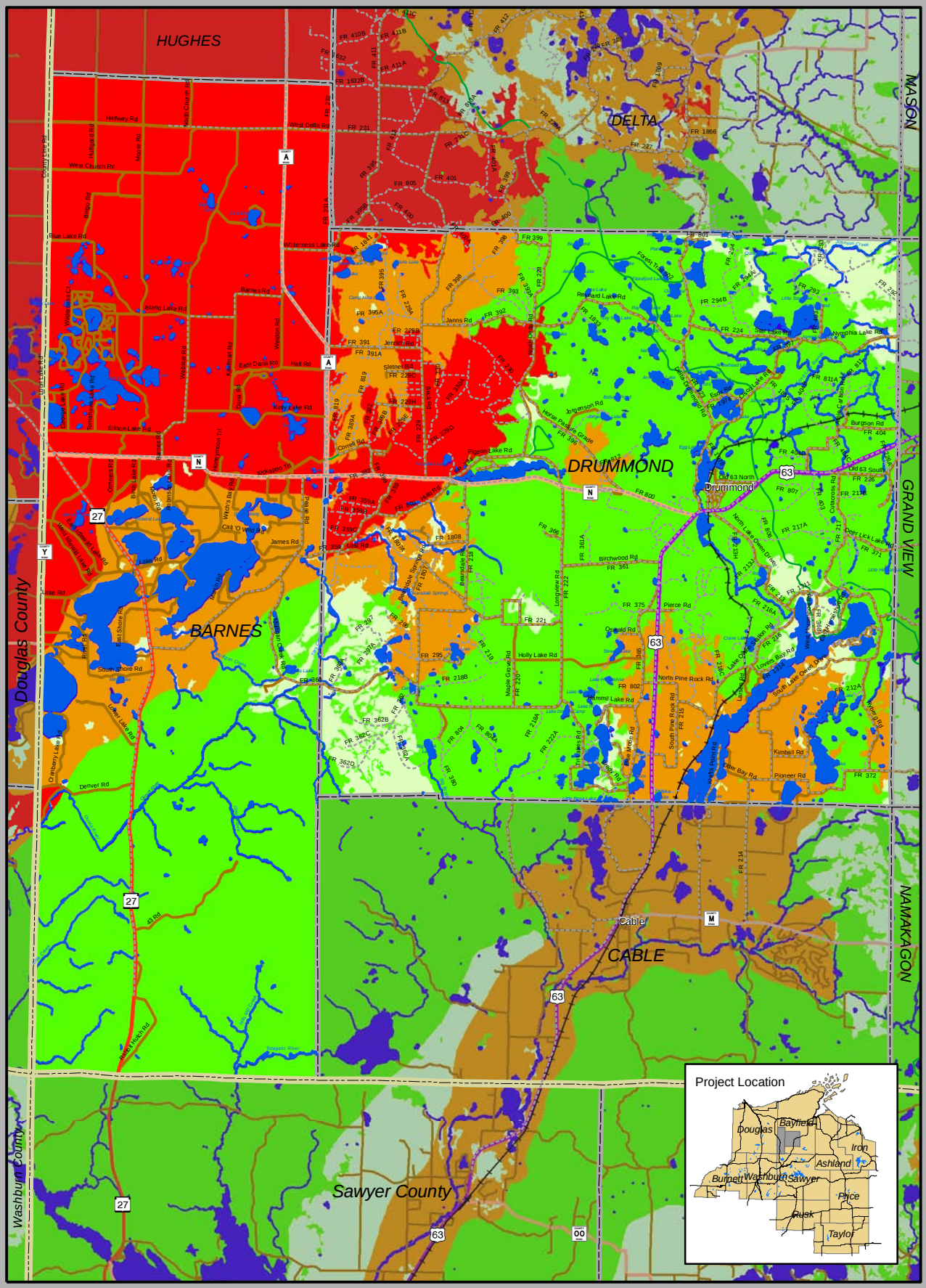
Historical forest fires smaller than 10 acres represented an estimated 40 percent of the total number of fires, but accounted for less than 1 percent of the total area burned. Regardless of size, historical fire ignitions were likely influenced by a combination of factors, such as weather conditions (particularly wind and drought), forest type, the longevity of the dominant tree species within a given ecosystem, and the frequency of indigenous burning and lightning-caused fire starts.

By contrast, modern fire regimes differ greatly in their size, frequency, and cause as compared to historical fires. Contemporary fire regimes are almost exclusively associated with human-caused ignitions, coupled with modern fire detection and suppression, and reflect the rearrangement of landscape fuels due to logging, forest management, and agriculture over the past 150 years. Cleland and others noted a strong relationship between the current fire occurrence and the presence of human populations, especially as measured by housing density. Additionally, the frequency of fire (at a landscape scale) is generally much longer due to the effective wildland fire suppression activities of the various Federal, State, county, and local agencies and/or entities towards safeguarding human life and property.

Contemporary fire regimes within the planning area have changed dramatically, with tremendously longer fire rotations and fire return intervals, smaller fire size, and the potential for more severely burning wildfire.

The characteristic vegetation and fuels conditions are considered to be those that occurred within the natural (historic) fire regime. This would include a landscape of fluctuating pine barrens and early to mid seral classes; stands of large, widely spaced red and white pine with sparse understory; stands of large white pine and hemlock; and hardwoods with a high percentage in old growth forest.

Uncharacteristic conditions are those that did not likely occur historically. Within the planning area conditions exhibiting non-native invasive plants, extremely dense understory shrubs and trees (in areas associated with a frequent, surface fire regime), plantations, and the “high graded” composition of the forest resulting in a lack of old forest structures are indicative of a significant degree of departure from the natural fire regime. In the event of a fire start under adverse weather conditions (e.g., prolonged drought or high winds), the potential fire intensity and severity could be much more severe than the historical counterpart.



Fire Regimes
Map 6

Barnes - Drummond
Community Wildfire Protection Plan

Legend

- FR II
- FR I
- FR III
- FR V
- Water

N

0 0.45 0.9 1.8 Miles

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FUEL MODELS

Vegetation data helps demonstrate how susceptible certain forest types are to a wildfire and how a fire may behave within a given forest type. Fuel model data for the publicly-owned and managed lands in the Barnes-Drummond area was collected from Forest Service, County Forest and WDNR data. Fuel data for privately-owned lands was derived from the Wisconsin Initiative for Statewide Cooperation on Landscape Analysis and Data (WISCLAND) land cover model. Map 7 reflects a composite of all three data sources.

There are 7 fuel models present in the project area (**Map 7**). Fuels depicted include grass, brush, timber and slash. These models were chosen because they best correspond to the Washburn District's and Bayfield County's current stand data and the Great Lakes region vegetation.

FM2 High hazard - Grass with open timber-brush overstory

- Fast moving: can out run single engine capacity in moderate conditions, and single dozer capacity in high conditions.
- Hand tools effective only in low or moderate condition.
- Green-up moderates fire behavior rapidly in the spring: will not carry fire in the fall until after a severe frost (late September) and is capable to carry fire after green-up if thick matted layer is dry.

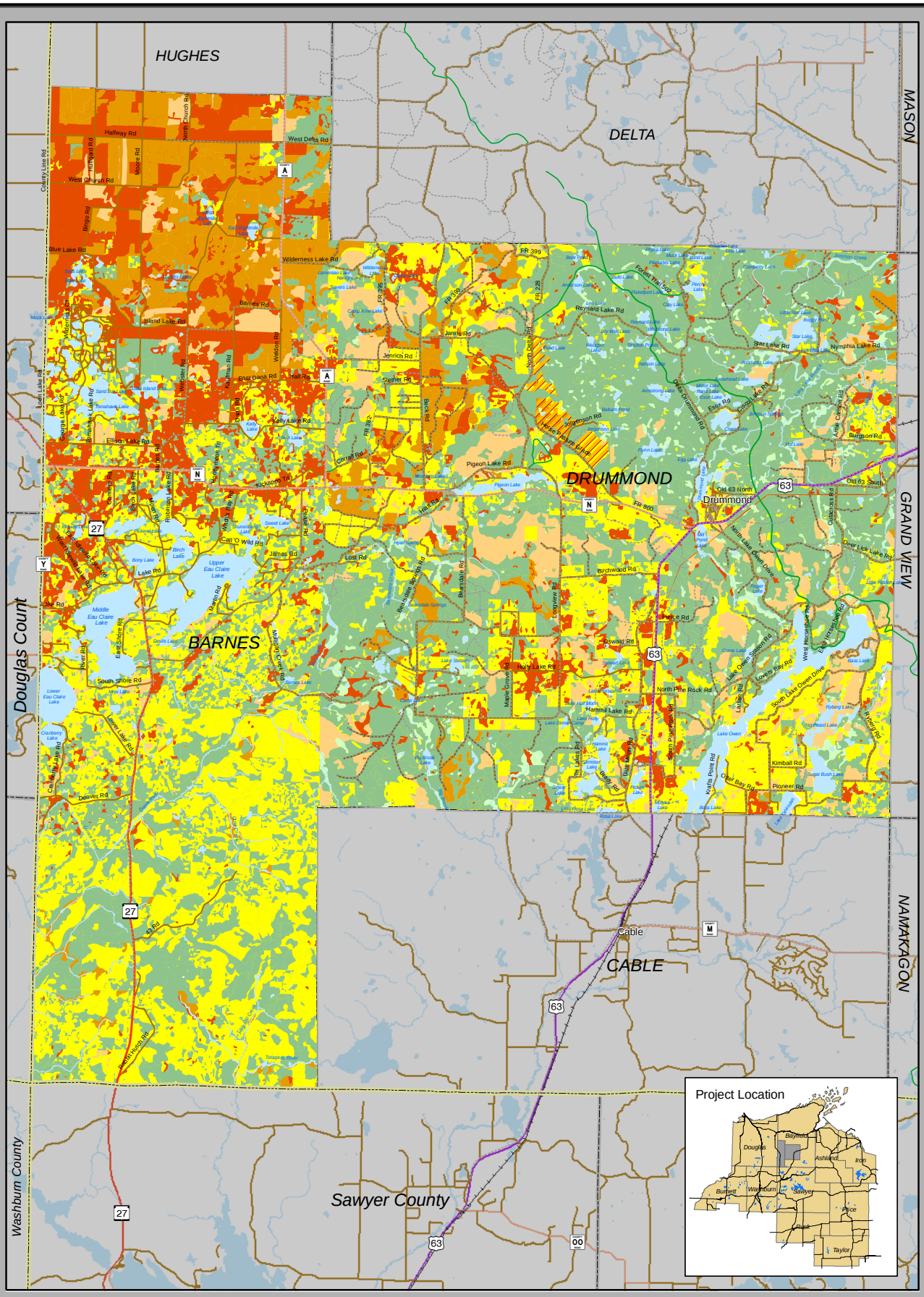
FM4 High hazard - Closed canopy pine stands in the lakes' states

- Assuming a crown base height of less than 20 ft.
- Main carrier of the fire is the live foliage aided by conifers flammable chemical characteristics.
- Sustained crown fire model: fast moving, very intense fires that occur with the following thresholds: 15+mph 20ft wind speed, <30%RH, >70 degrees temperature.
- Live fuel moisture (foliar moisture) is low during the dormant season and dips to the lowest when the new growth begins in the middle of spring fire season. Ladder fuels greatly add to the hazard by aiding crown, intermittent crown, and torching fire behavior and the resulting spotting.
- Lack of fuel or ladder fuel virtually eliminates hazard after green-up when foliar moisture is at its highest during the growing season.

FM 13 High hazard - This slash model is used for forest that has been heavily damaged by wind or ice.

- Conifer blowdown or a released conifer understory (balsam-spruce) associated with blowdown is especially hazardous.
- This fuel model can remain hazardous throughout the snow-free season as dead fuel is the main carrier of the fire. Fire behavior is moderated by green-up but an extended drying period during the summer can cause intense fires.

FM9-1 Moderate to high hazard - Mature red/white pine, loosely compacted needle



Fuel Types
Map 7
Barnes - Drummond
Community Wildfire Protection Plan

- High Hazard (grass with open timber/brush overstory)
- High Hazard (closed canopy pine stands in the lakestates)
- Moderate to High Hazard (mature red/white pine, loosely compacted needle litter)
- Low to Moderate Hazard (oak, loosely compacted leaf letter)
- Low Hazard (hardwood brush model)
- Low Hazard (compacted leaf litter)
- Blowdown Areas

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N

Data Source: USFS, Bayfield County Forestry Dept., WDNR (WISCLAND)

0 0.5 1 2 Miles

litter.

- Wildfires generally intense enough to cause significant overstory mortality. During periods of high to extreme burning conditions, suppression actions could be ineffective (torching and spotting).
- Ladder fuels significantly add to intensity and fire spread through spotting. Very receptive to spotting and ignition, flammable because of chemical properties, and loose needle compaction.
- Flammability lingers well into green up and arrives early in the fall.

FM9-2 Low to moderate hazard - Oak, loosely compacted leaf litter.

- Most flammable in late fall before snow compacts leaves.
- Receptive to spotting from blowing leaves and torching of understory conifers. Only during periods of very high to extreme burning conditions suppression actions could be ineffective.
- Conifer understory could add to intensity and rates of spread.
- Flammability generally does not linger as long into green-up or arrive as early in the fall as the pine fuel model.

FM 8 Low hazard - Compacted leaf litter, aspen, birch, northern hardwood types, also includes short needle conifer (spruce, jack pine) if weather conditions under the crown fire-torching threshold (see fuel model 4).

FM 5 Low hazard - Hardwood brush model

- FM 8 and 5 have very similar fire behavior
- The lowest rates of spread and fire intensity of any fuel models
- Suppression action effective except under the most extreme fire weather
- Need live or dead conifer understory for this fuel model to be hazardous
- Can be used as fire lines on landscape type Rx burns or as fuel breaks on wildfire.

LONG-RANGE PLANNING

Both local units of government have engaged in local level land use planning. Drummond completed a land use plan in 2001, and both jurisdictions are currently developing long-range comprehensive plans. The recommendations, maps and policies contained in these plans will be used by the local units of government and Bayfield County to make decisions regarding land use in the CWPP project area. It is important that both communities and the county consider the contents of this CWPP when engaging in long-range planning and making land use and other local decisions.

V. WILDFIRE RISK ASSESSMENT

WHAT IS THE WILDFIRE RISK ASSESSMENT?

The Barnes-Drummond Wildfire Risk Assessment project is one part of the overall planning process. It is intended to identify the locations for focused resource allocation to most effectively reduce the wildfire risk. While wildfire risk may never be entirely eliminated, the strategic implementation of sound management policy can reduce the threat of wildfire and minimize losses. This assessment provides decision- making bodies with the information necessary to allocate resources effectively to reduce the risks from wildfire.

The model used in this assessment was based on similar approaches used in other planning processes. A GIS based modeling approach was utilized, along with suggestions and inputs from resource management professionals and representatives from the participating local units of government. The purpose of the assessment was to develop a relative ranking for wildfire risk and hazard, not to define specific local conditions or local hazard conditions.

DATA INPUTS

The Wildfire Risk Assessment utilizes data from a wide range of sources. This information was developed for differing uses; thus, data is at varying scales of precision and accuracy. Some inputs may not be completely inclusive. In cases where data was developed specifically for input into the model, every step possible was taken to ensure data quality and accuracy. Additionally, obtaining data for each of the required inputs was difficult. The model was revised several times to compensate for missing or incomplete data.

MODEL DESCRIPTION

Using the steps outlined in "Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities" (SAF, 2004) models were developed for each phase listed under step 5 "Community Risk Assessment". Individual models were created for Fuel Hazards, Risk of Wildfire Occurrence, Essential Infrastructure at Risk, Other Community Values at Risk, and Local Preparedness and Firefighting Capability. Each model was comprised of a series of input themes (GIS data layers) representing components, or aspects of the selected phase. The model utilizes a total of 23 input themes as depicted below.

Fuel Hazards = 1
Risk of Wildfire Occurrence = 4
Essential Infrastructure at Risk = 10
Other Community Values at Risk = 4
Local Preparedness and Firefighting Capability = 4

The final overlay is a composite of the outputs of each of the 5 individual phases.

WEIGHTING THE INPUTS

In order to quantify the relative significance of each of the inputs, weighting values were assigned based on data components and theme values. These values were determined by the CWPP Planning Committee. This approach allowed us to examine multiple variables simultaneously and to understand the cumulative impact of risk factors.

An example of theme weighting for fuel hazards shows how this process was done. Fuel types were weighted according to their relative hazard risk. Low risk fuels (FM 5, 8) were assigned lower weighing values than high-risk fuels (FM 2, 4, 9-1) in the Fuel Hazard model. In models where there were more than one theme used, the raster cell values of each theme were reclassified (numerically rated) using a common scale (0-9). Each theme was then assigned a weighting value, or percentage influence based on its importance to the model. The total influence for all themes used in a model was equal to 100 %. In the weighted overlay analysis, the reclassified cell values were multiplied by the theme weighting value to produce the final output maps.

MODEL INPUT DESCRIPTIONS

Fuel Hazards

Themes

1) Fuel Types- Derived from Forest Service stand data, WISCLAND land cover data, and Bayfield County Forestry stand data. Identifies the fuel model type which best corresponds to the Washburn District's current stand data and the Great Lakes region vegetation.

Risk of Wildfire Occurrence

Themes

1) Trails – Derived from Forest Service, Wisconsin DNR and Bayfield County digital data sets. Data depicts major (named) trail networks.

2) Roads – Derived from the US Census TIGER line and Forest Service road network data. Depicts federal, state, county and local roads, along with Forest Service roads.

3) Residential Development – Derived from the Bayfield County tax parcel dataset and tax assessment database. Parcels with improvement values were converted to points.

4) Historic Fire Occurrences – Point data locations of historic fire occurrences collected from USFS and WDNR. Density GRID created using GIS.

Essential Infrastructure at Risk

Themes

1) Subdivisions – Derived from the Bayfield County tax parcel database.

2) Power Lines- Extracted from US Census Bureau TIGER line data.

3) Water Intakes – Data provided by Bayfield County and created through consultation with Town staff.

4) Substations – Electric utility substations, data provided by Wisconsin Public Service Commission

5) Sensitive Facilities – Public buildings, places where people congregate. Data set created through consultation with local government officials.

6) Essential Infrastructure - Emergency response facilities and critical public utilities. Data set created through consultation with local government officials

7) Businesses – Extracted from the Bayfield County tax parcel database. Points were created for all properties with commercial improvement values.

8) Homes - Derived from the Bayfield County tax parcel dataset and tax assessment database. Parcels with improvement values were converted to points.

9) Communications Structures – Communications relay towers, radio towers, and cell phone towers. Data developed through consultation with local government officials.

10) Escape Routes – Principal community evacuation routes. Data developed through consultation with local government officials.

Other Community Values at Risk

Themes

1) Recreation/Scenic Areas – Public recreation areas, campgrounds, picnic areas, boat & canoe landings, trailheads. Created using US Forest Service data and consultation with local government officials.

2) Significant Landscapes – Special management areas (Wilderness, semi-primitive non-motorized areas, special management areas, research natural areas and old growth areas). Based on US Forest Service data.

3) Open Space/Public Land – Publicly owned and managed lands (Bayfield County Forest, Chequamegon-Nicolet National Forest). Data provided by the US Forest Service and Wisconsin DNR.

4) Shoreland Areas – 100' buffer along lakes and streams. Based on WDNR 1:24,000 hydrography GIS data layer.

Local Preparedness and Firefighting Capability

Themes

1) Distance to Fire Stations –Proximity analysis depicting the distance from any given location in the project area to the nearest fire station (Barnes and Drummond Fire Department's, Barnes Ranger Station and local fire stations within adjoining communities).

2) Dead End Roads – Roads closed off at one end. Created using USFS data and TIGER data line files.

3) Distance to Water Sources- GIS GRID analysis calculating linear distance to water access points.

4) Access- GIS GRID analysis of distance from roads to interior portions of the project area.

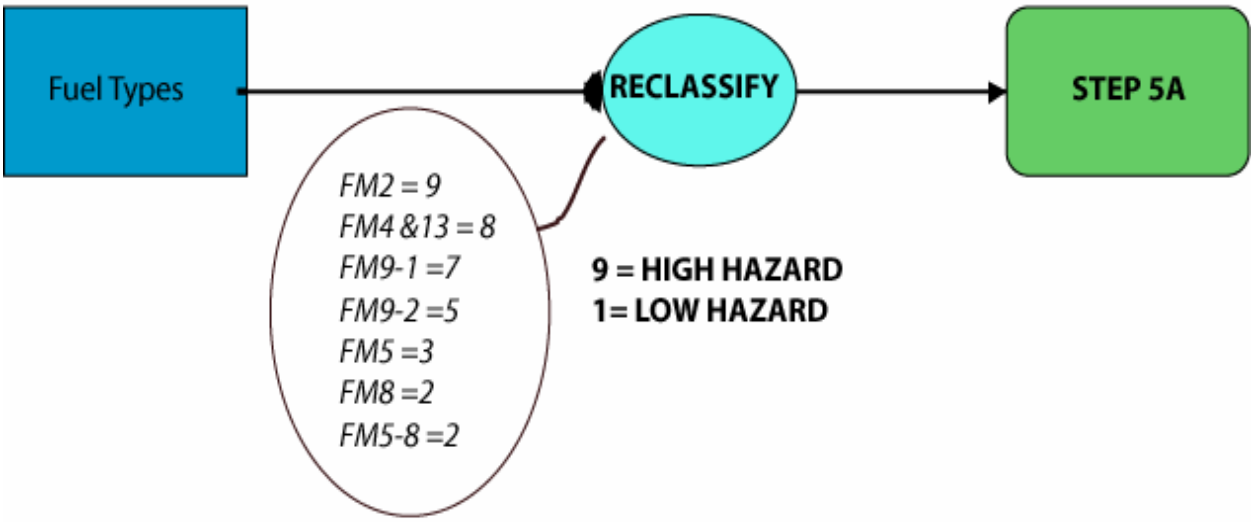
RISK ASSESSMENT METHODOLOGY

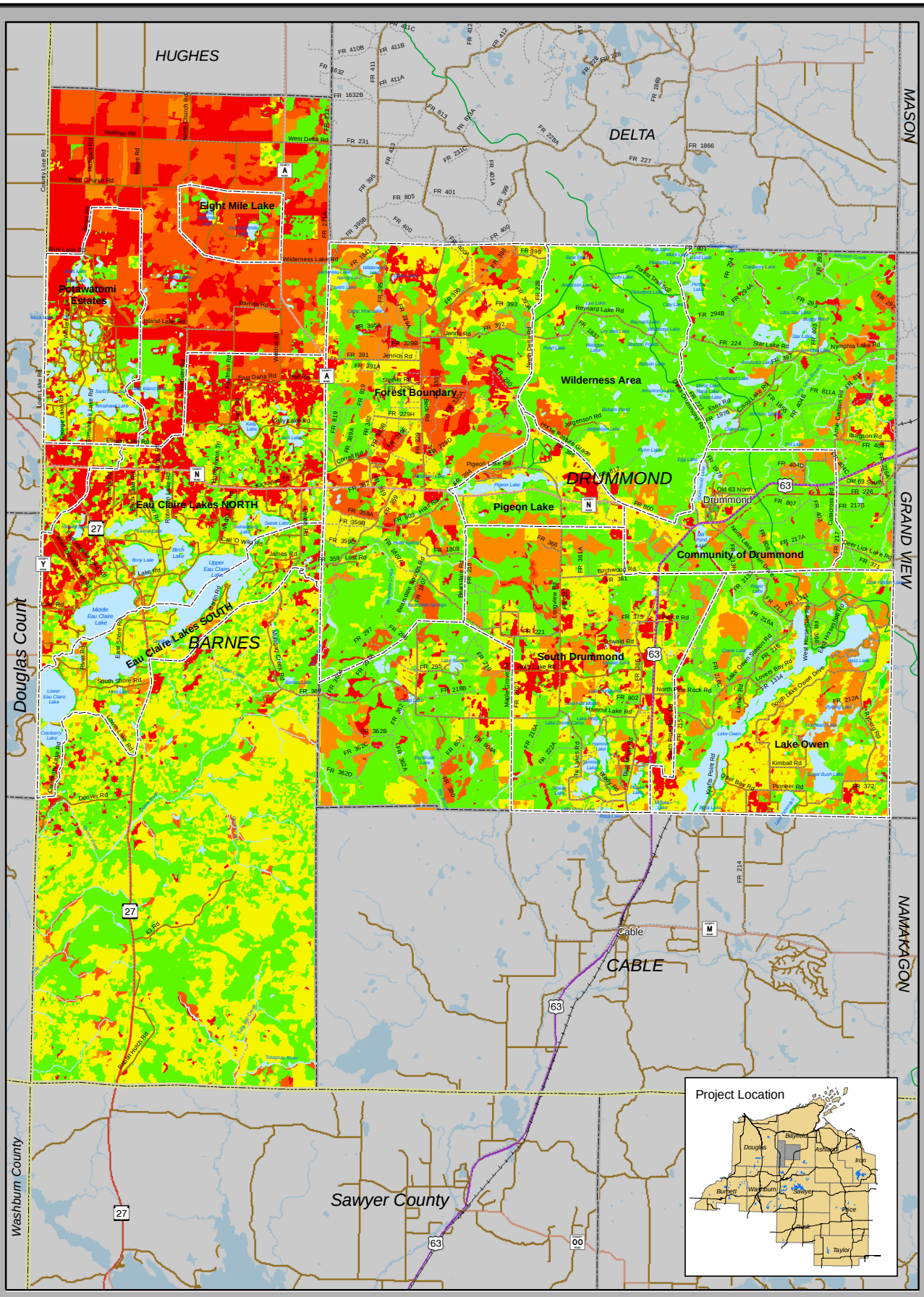
Fuel Hazards (Step 5A)

Evaluates the vegetative fuels present within the project area. Specific areas will be identified where the condition of vegetative fuels is such that, if ignited, they would pose a significant threat to the community or essential community infrastructure. The vegetation information identifies major fuel model types based on Washburn District stand data, Bayfield County Forestry data and the WISCLAND land cover model. Fuel values were rated on a scale from 1 to 9, or low to high hazard (**Figure 7**).

Fuel model types with similar fire behavior were merged or split to best reflect current landscape conditions. For example, FM 4 (closed canopy pine stands) and FM13 (slash/blowdown model) intermix within the same geographic area. It is expected that fire behavior within both models would be similar. FM's 5 and 8 also were also grouped together due to similar fire behavior. The fuel hazard model is depicted in **Map 8**.

Figure 7, Fuel Hazard Model





Step 5A Fuel Hazards

Map 8

Barnes - Drummond Community Wildfire Protection Plan

Fuel Hazards
High
Low
Planning Area

0 0.5 1 2 Miles

N

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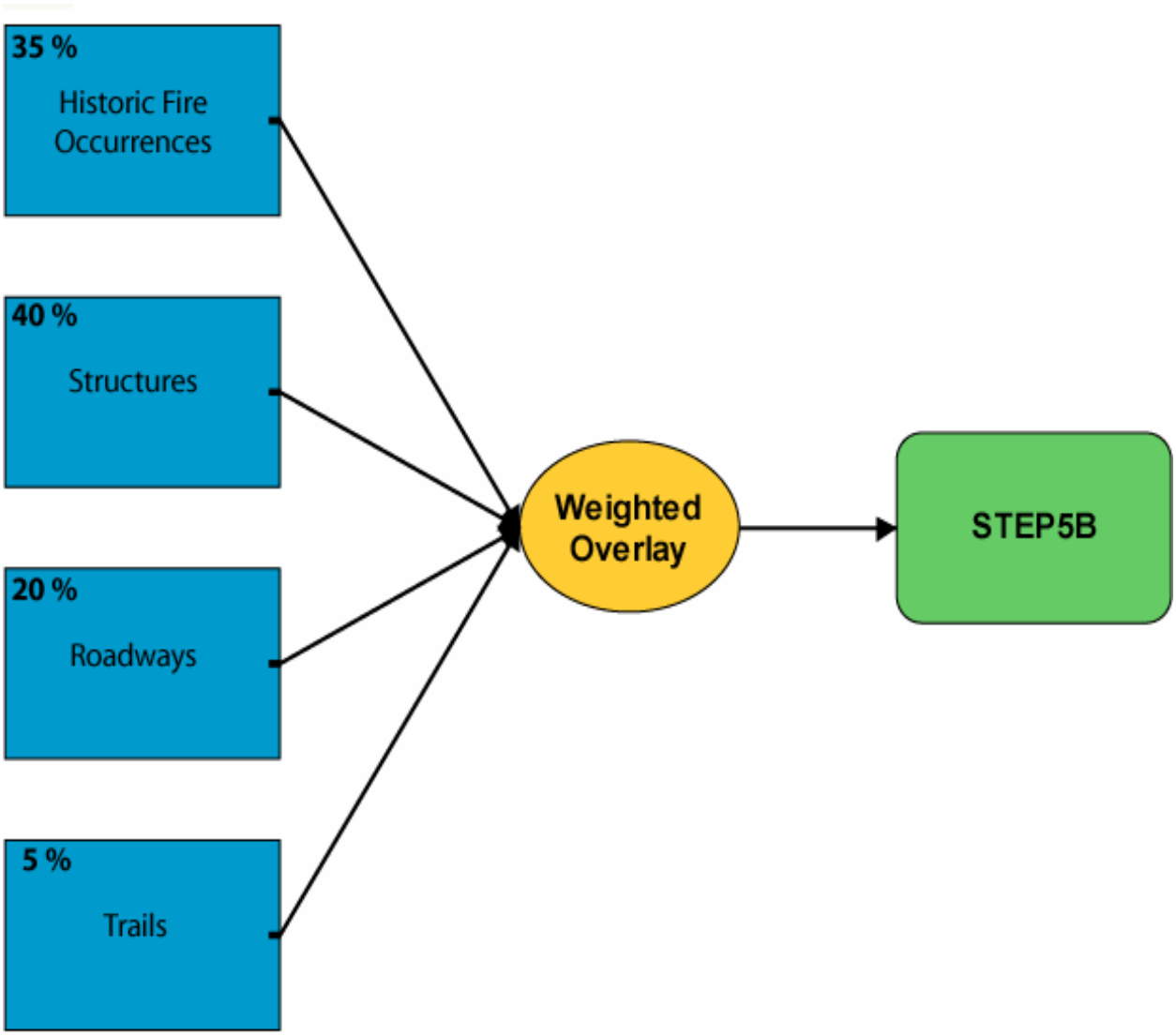
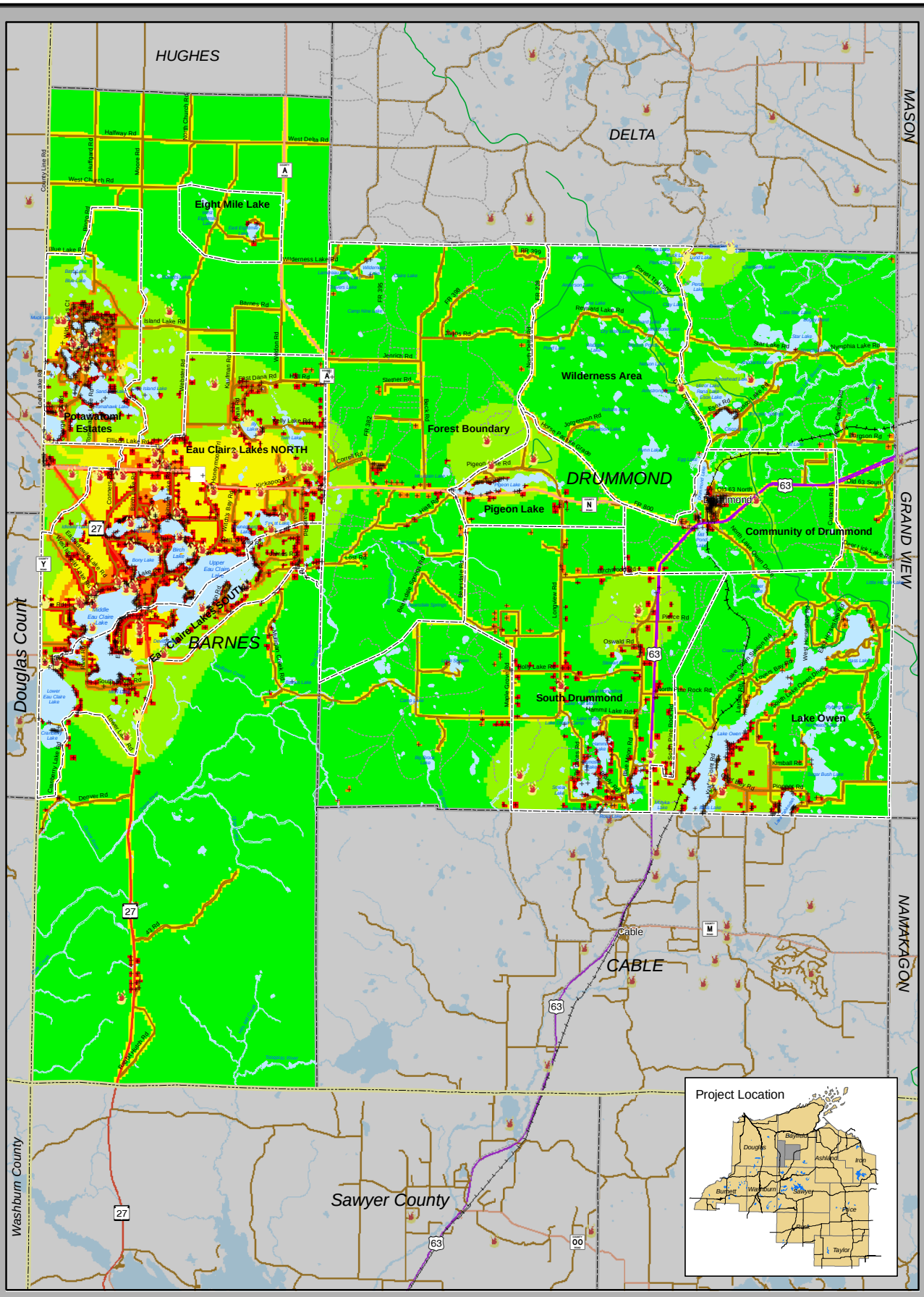
Risk of Wildfire Occurrence (Step 5B)

This assessment determines the common causes and relative frequency of wildfires in the vicinity of the project area using historical data and local knowledge. Historically, most wildfires in the project area have resulted from human actions, namely debris burning. This assessment is based on the assumption that human development and interaction on the landscape pose inherent wildfire risks. The assessment calculates this risk by defining the spatial location of development and other risk-related factors such as historic fire occurrences (fire density), roadways and trails. The model structure for Step 5B is depicted below in **Figure 8**, with the output depicted in **Map 9**.

Figure 8, Risk of Wildfire Occurrence Model





Step 5B Risk of Wildfire Occurrence

Map 9

Barnes - Drummond Community Wildfire Protection Plan

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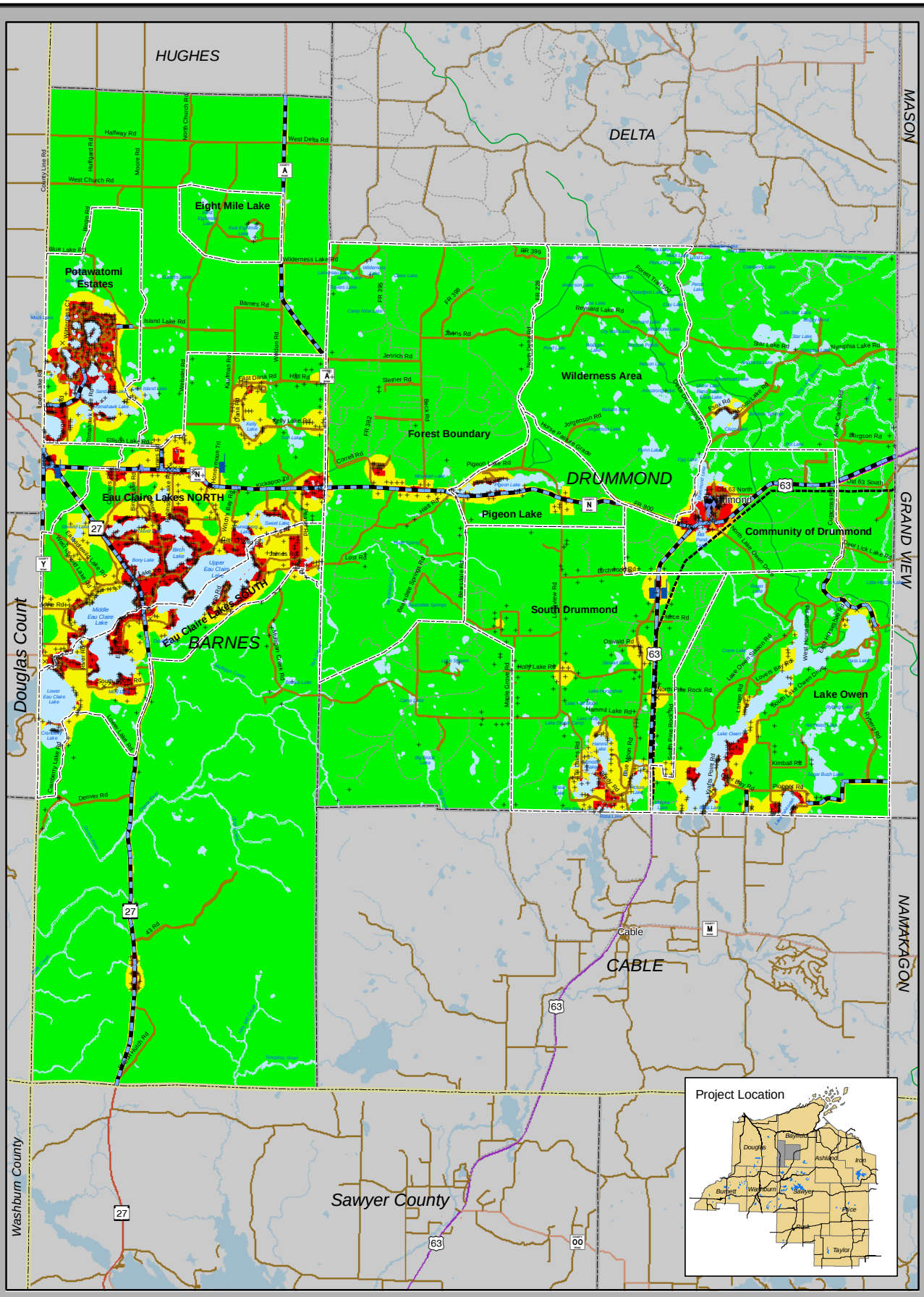
Essential Infrastructure at Risk (Step 5C)

This assessment identifies essential infrastructure that would be adversely impacted by wildfire. Weighting values and model structure are depicted in **Figure 9**. Features identified include subdivisions (platted and areas of concentrated development), communication facilities, power lines, water intakes, substations (power and communication), sensitive facilities, businesses, residences, essential infrastructure, and escape routes. The model output is depicted in **Map 10**.

Figure 9, Essential Infrastructure at Risk Model



Step 5C Essential Infrastructure at Risk

Map 10

Homes
Business
Communication Structures
Sensitive Facilities
Water Intake
Substations
Escape Route
Essential Infrastructure
Powerline
Planning Area
Infrastructure at Risk
High
Low

N

0 0.5 1 2 Miles

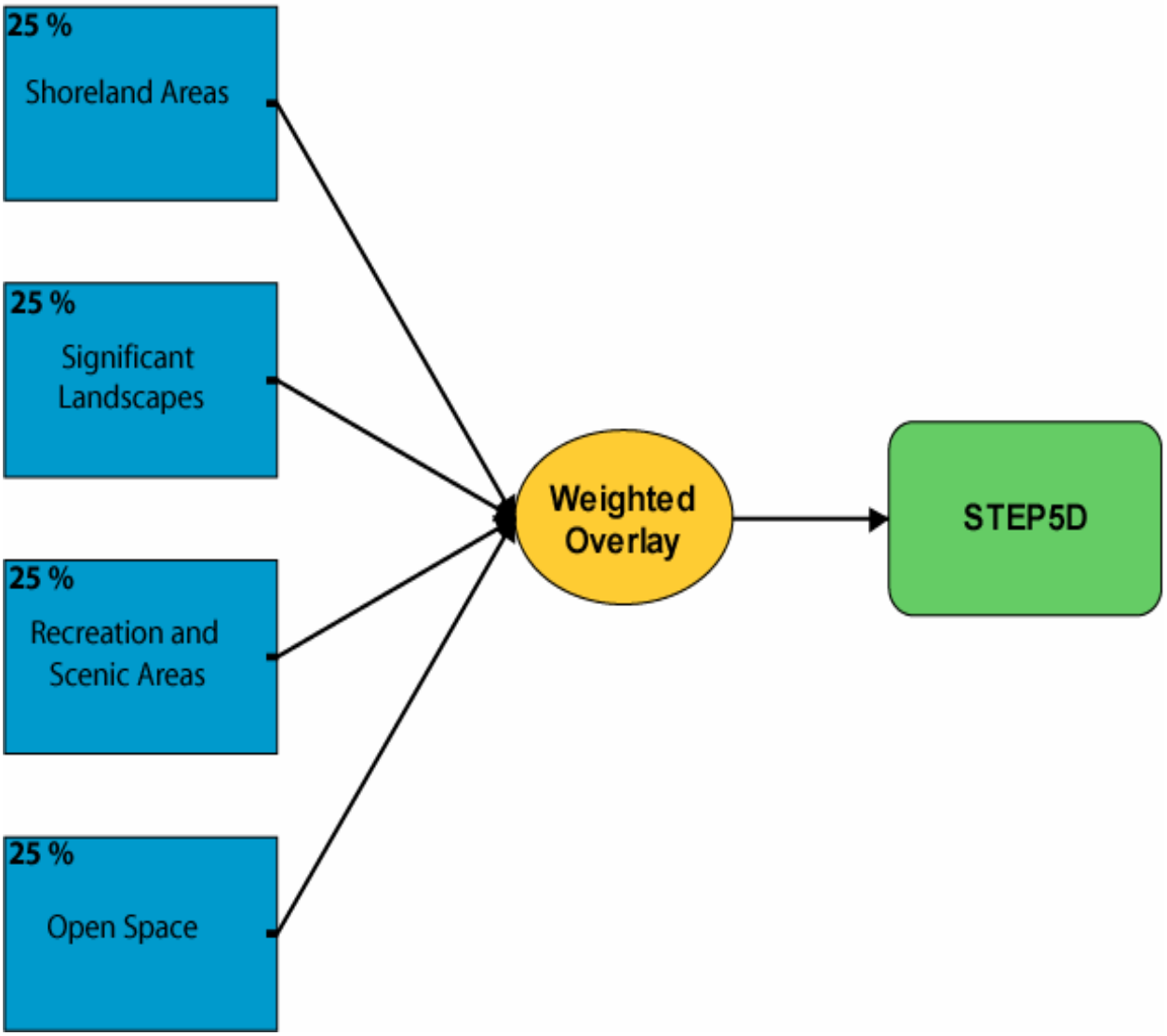
Barnes - Drummond Community Wildfire Protection Plan

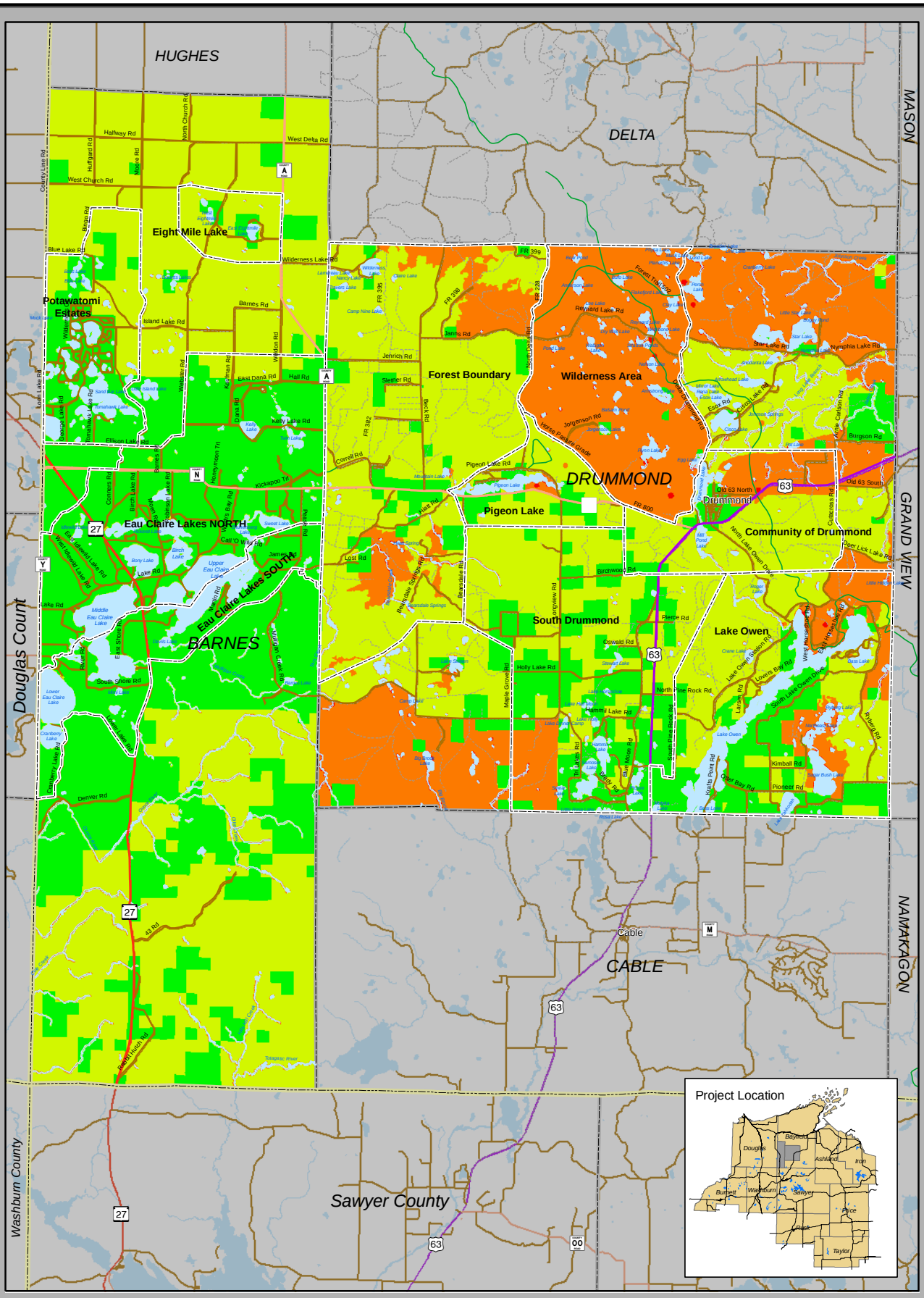
Northwest Regional Planning Commission

Other Community Values at Risk (Step 5D)

This assessment evaluates other areas that would be adversely impacted by wildfire. **Figure 10** depicts the model structure used in this step of the process, while the output is depicted in **Map 11**.

Figure 10, Other Community Values at Risk Model





Step 5D Other Community Values at Risk

Barnes - Drummond Community Wildfire Protection Plan

Map 11

Community Values at Risk

- High
- Low
- Planning Area

N

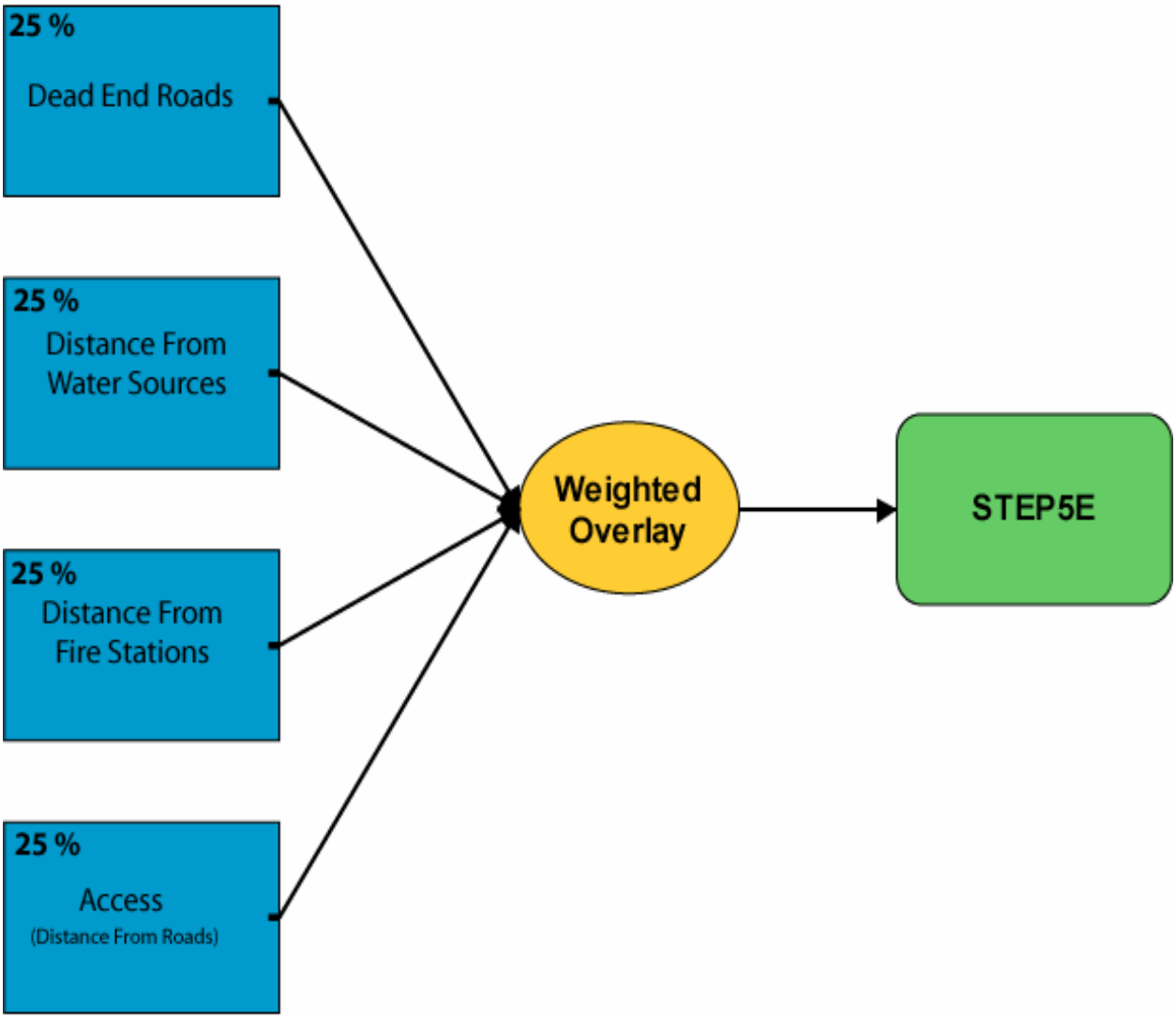
0 0.5 1 2 Miles

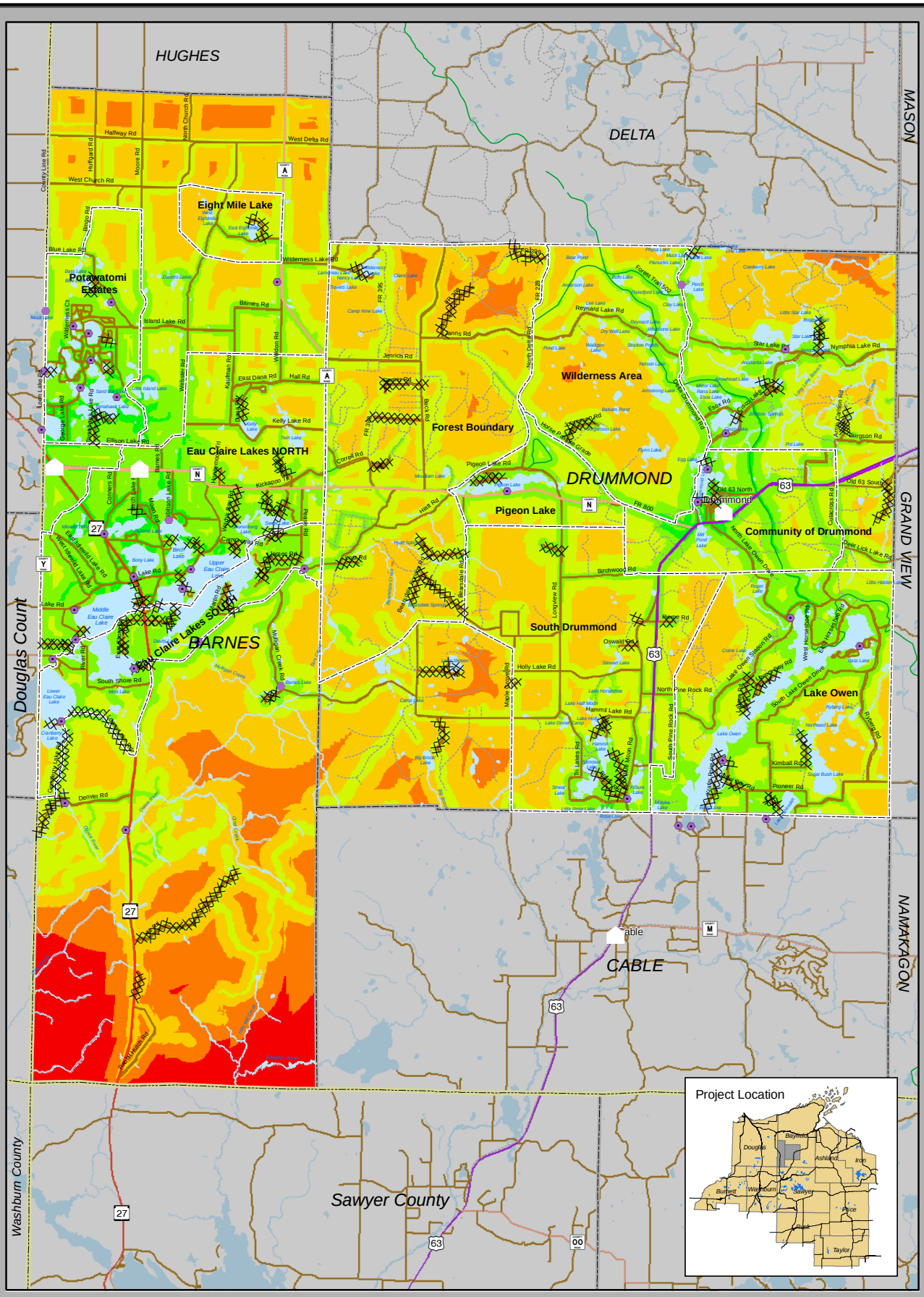
Northwest Regional Planning Commission

Local Preparedness and Firefighting Capability (Step 5E)

This step assesses the overall preparedness and capability to fight structure fires and wildfire in the project area. Key modeling components included distance to fire stations, road access, access constraints (dead-end roads) and distance from water sources, as shown below in **Figure 11**. The model output is depicted in **Map 12**.

Figure 11, Local Preparedness and Firefighting Capability Model





Step 5E Local Preparedness and Fire Fighting Capability

Map 12

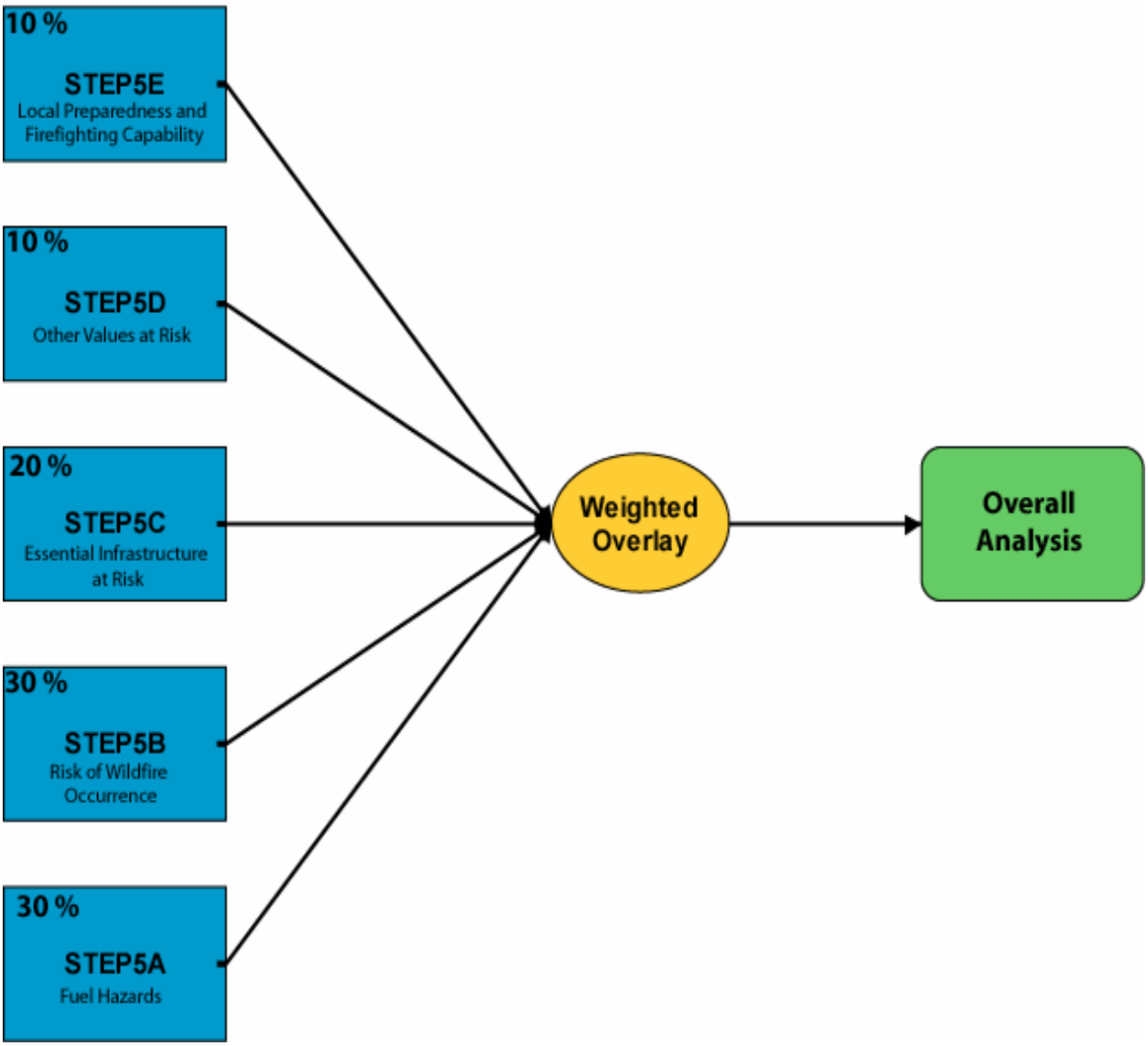
Barnes - Drummond Community Wildfire Protection Plan

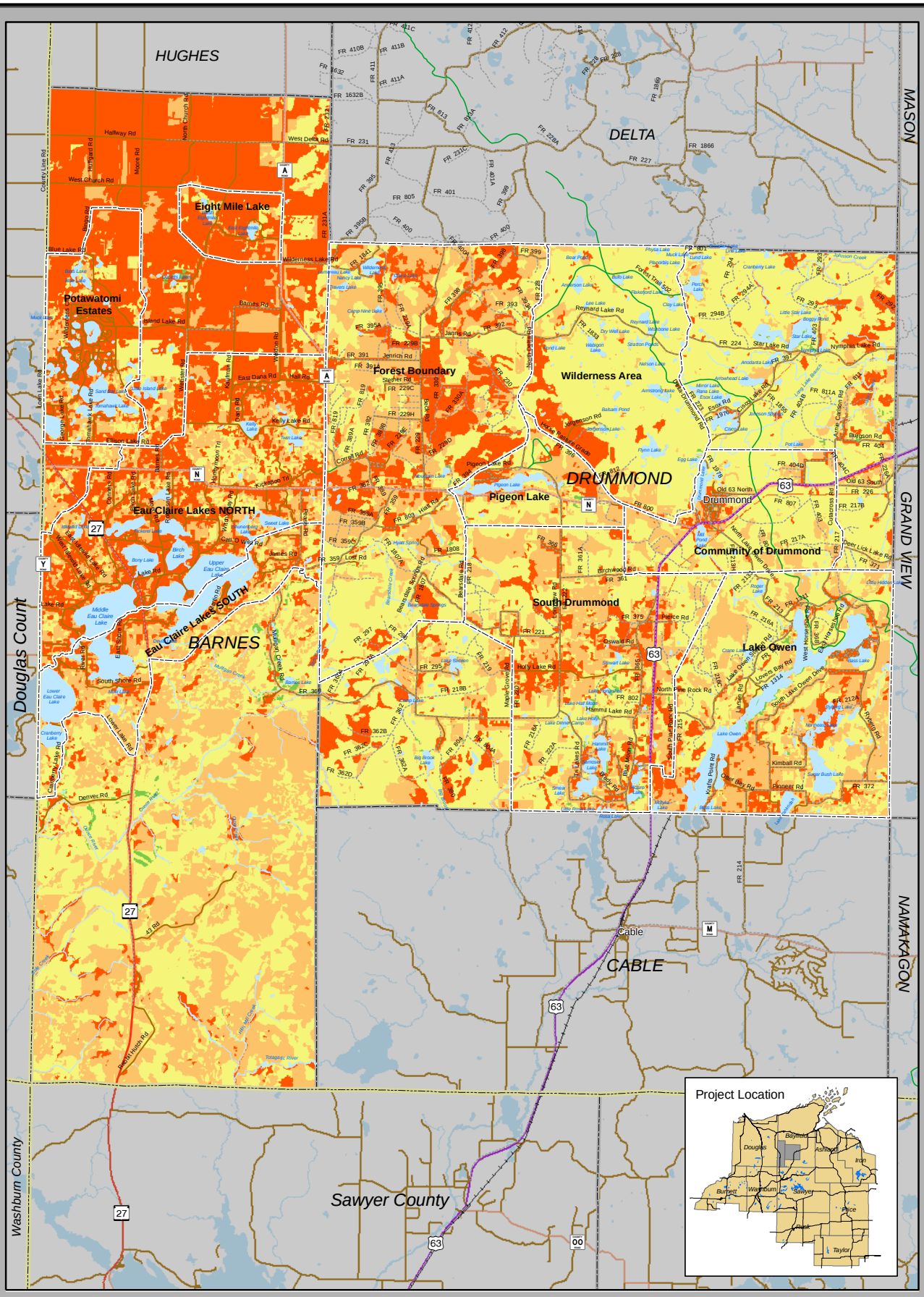
Northwest Regional Planning Commission

Overall Assessment

Each of the previous five steps was designed to analyze one component of wildfire risk in the project area. Each map (**Maps 8-12**) expresses the relative degree of risk or hazard on a numeric scale. The final overlay (Overall Analysis) is a weighted overlay of each of the five individual phases of the model. The outputs for each phase were weighted on a scale of 1 to 100, with the total for all inputs not to exceed 100, described in the flowing diagram (**Figure 12**). The results of the overall assessment are depicted in **Map 13**.

Figure 12, Overall Assessment Model





Final Overlay
Map 13

Barnes - Drummond
Community Wildfire Protection Plan

Northwest Regional Planning Commission

Plannng Area

Hazards

- High
- Moderate to High
- Low to Moderate
- Low

N

0 0.5 1 2 Miles

WILDLAND URBAN INTERFACE (WUI)

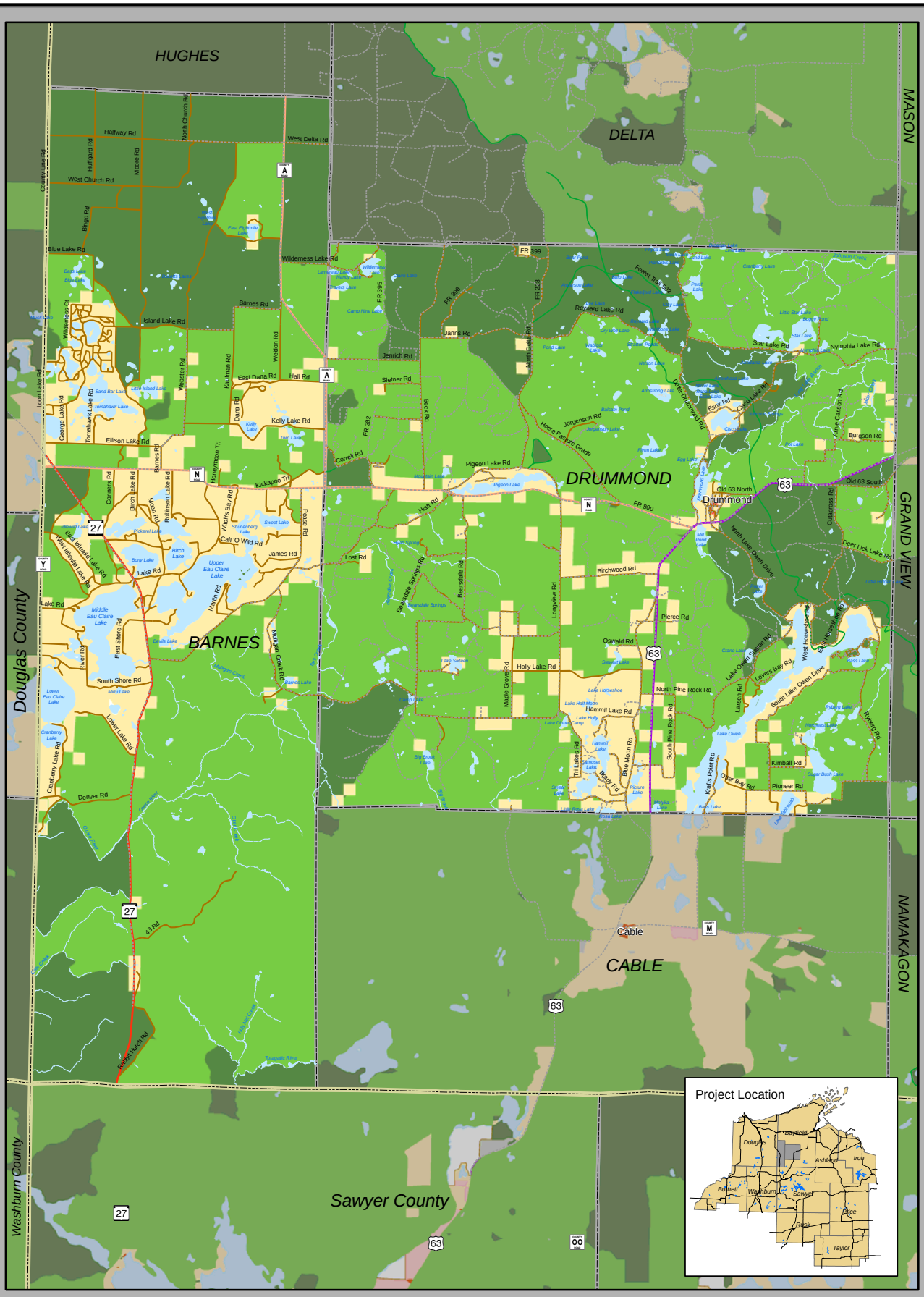
The Wildland Urban Interface (WUI) identifies areas where structures and human development intermingle with undeveloped wildlands. It is within these areas where wildfire poses the greatest risk to human lives and structures.

Base WUI data for the Barnes-Drummond CWPP was obtained from the SILVIS Lab at the University of Wisconsin-Madison. WUI boundaries were then modified using density calculations derived from Bayfield County tax parcel information. Maps generated from this data illustrate the WUI areas as either interface or intermix areas. Interface WUI are areas with housing in the vicinity of contiguous wildland vegetation, while the intermix WUI defines areas where housing and vegetation intermingle.

Within the intermix areas, wildland vegetation is continuous (more than 50 % vegetated). These areas have a residential development density of more than 1 house per 40 acres. Interface communities are areas with residential development in the vicinity of contiguous vegetation. Interface areas have more than 1 house per 40 acres, have less than 50 percent vegetation, and are within 1 ½ miles of an area over 1,325 acres that is more than 75 percent vegetated.

Based on HFRA authorization, the State of Wisconsin will define the boundaries of the WUI for CWPP purposes to align exactly with civil town boundaries. In addition, funding for planned treatments adjacent to Federal lands could extend up to 1.5 miles beyond the defined WUI boundary.

The WUI for the Barnes-Drummond project area is depicted in **Map 14**.



Wildland Urban Interface (WUI)
Map 14

Barnes - Drummond
Community Wildfire Protection Plan

Northwest Regional Planning Commission

WUI	Interface
	Intermix
	Very Low Density Veg
	Uninhabited No Veg
	Uninhabited Veg

N

0 0.5 1 2 Miles

VI. COMMUNITIES AT RISK AND COMMUNITY PLANNING UNITS

A community at-risk can be defined as a place where humans and their development meet or intermix with wildland fuels.

Within the Barnes-Drummond project area, the rural population centers and communities within the WUI represent the communities at-risk. To provide for a better overall community plan, the project area was subdivided into 10 individual planning units which encompass local population and development clusters. Within the rural communities, “pockets” of concentrated human development commonly occur in association with surface water features. Within these “lake communities”, structure density can rival that found within more urban areas. Each of these “pockets” is surrounded by large tracts of contiguous forestland, making them especially vulnerable to wildfire. While human activity within these areas may, at times, be very heavy, little or no support infrastructure exists at the community level. These areas must strictly rely on external fire protection resources (Town, State, and Forest Service). The existing infrastructure and development conditions within these communities can hinder fire suppression activities. Problems such as narrow roadways, limited or non-existent turn-around areas, lack of signage and other access constraints can greatly impact emergency response capabilities.

Planning unit boundaries are depicted in **Map 1**.

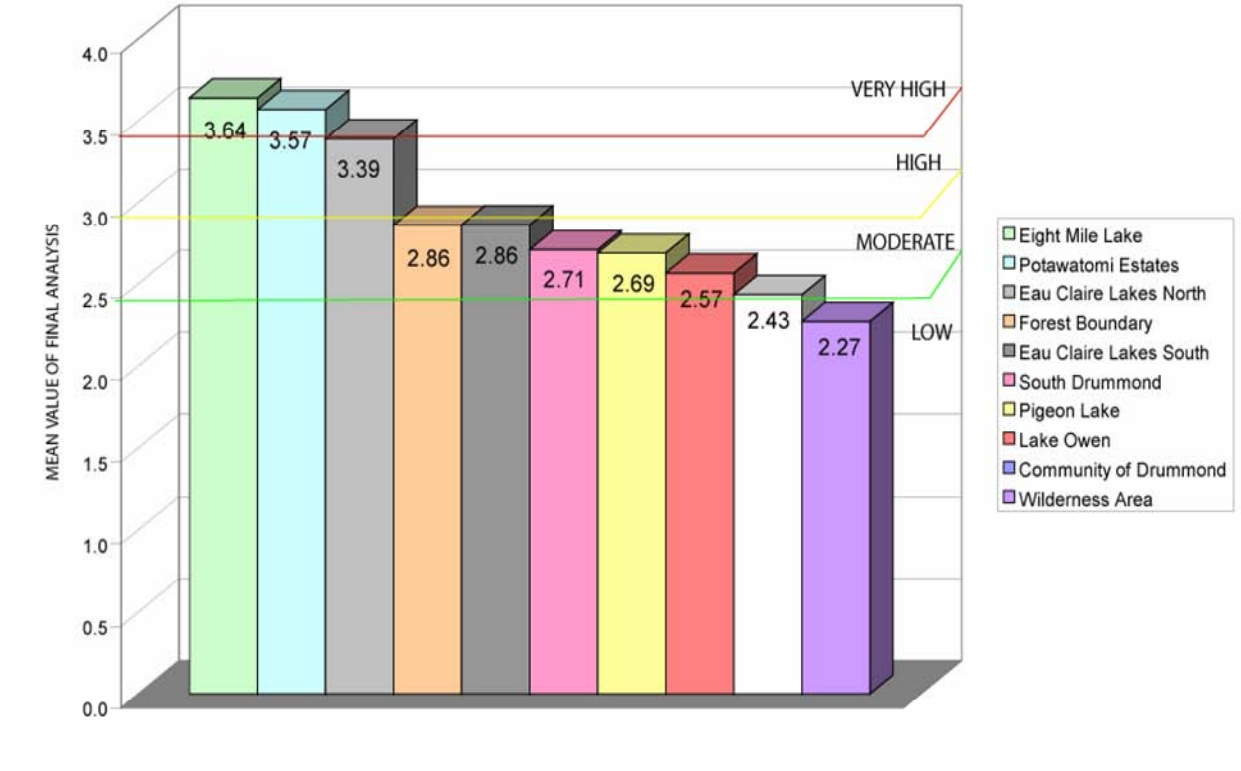
COMMUNITY PLANNING UNITS

Drummond
Community of Drummond
Drummond South
Forest Boundary
Lake Owen
Pigeon Lake
Wilderness Area

Barnes
Potawatomi Estates
Eau Claire Lakes North
Eau Claire Lakes South
Eight Mile Lake

The tables on pages 33-42 define and describe each community planning unit in terms of existing conditions, values and resources present, and community wildfire planning issues. The hazard assessment rating (**Figure 13**) for each of the planning units was determined by calculating the mean cell value of the final analysis model within each of the 10 planning units. Equal interval classification was used to categorize the planning units within the range of mean values. The decision to use this method was based on the consensus of the planning committee.

Figure 13, Hazard Assessment Rating, Planning Units



PLANNING UNITS IN THE TOWN OF DRUMMOND

Community of Drummond	
General Description	The unincorporated community of Drummond is located along US Highway 63 in the Town of Drummond. The community is entirely surrounded by federal lands with few interspersed private holdings. Drummond serves as a local service and commerce center with several small commercial businesses and service establishments. Public services such as a library and public school are also found in the community. A lumber mill facility (Drummond Lumber Company) is a major local employer located within the community.
Hazard rating	low (mean = 2.43)
Land Management	federal (89.5%) private (10.5%)
Area	9.5 square miles
Access	Drummond is located along a major US Highway (STH 63). All points within the community are accessible by roadway. Most roads within the community area paved and provide suitable ingress and egress.
Fire Occurrence	low
Homes	129
Businesses	10
Assessed Value of Improvements	residential $6,362,100 commercial $1,093400
Jurisdiction	Drummond Fire Department (structure protection), USFS (wildfire suppression)
Sensitive Facilities	10- public library, gas station, lumber mill, post office, bank, church, public school, telephone station, civic center, apartment complex
Essential Infrastructure	fire department, water tower, well, electric utility line, 2 water points (a)[5]
Community Values	historical museum, Drummond Lake Park & boat landing, North Country Trail
Preparedness capability	See **Table 14** and page 65

[5] Water Point Descriptions a= truck engine/trailer pump (500 GPM min.) to within 10 feet of waters edge. Multiple fill (3 or more, b= portable pump(s) (500 GPM min.) multiple fill (3 or more) no more than 75' from pump to fill site., c= tank truck to waters' edge single fill site by drafting or portable pump, h= dry hydrant

Drummond South Planning Unit	
General Description	This unit encompasses an area both east and west of US Highway 63 in the southern portion of the Town of Drummond. This unit includes numerous private holdings along with permanent and seasonal housing units. Lands on the Lake Owen side of the unit are primarily under federal ownership. This area was chosen as a planning unit due to the predominance of high-moderate fuel hazards and development density.
Hazard rating	moderate (mean = 2.71)
Land Management	federal (56.3%) private (43.7%)
Area	22.6 square miles
Access	Access to the area is generally very good. US Highway 63 run north/south through the unit, and numerous town roads provide access both to the east and west of USH 63.
Fire Occurrence	low-moderate
Homes	174
Businesses	2
Assessed Value of Improvements	residential - $10,428,800 commercial - $17,500
Jurisdiction	Drummond Fire Department (structure protection), USFS (wildfire suppression)
Sensitive Facilities	none
Essential Infrastructure	electric utility line, water point (a)
Community Values	timber values, water quality values, recreational area
Preparedness capability	See **Table 14** and page 65

Lake Owen Planning Unit	
General Description	The Lake Owen unit includes the entire southeastern corner of the Town of Drummond. Lake/recreational housing development is prevalent along both the Lake Owen and Lake Tahkodah shores. This area was chosen as a planning unit due to the present and potential future housing density coupled with moderate to high fuel hazards.
Hazard rating	moderate (mean = 2.56)
Land Management	federal (65.9%) private (34.1%)
Area	22.7 square miles
Access	This area is primarily served by paved Town roads. South Lake Owen Drive provides the primary access, with secondary access provided by Kraft's Point and Otter Bay Roads. Access may be somewhat more limited on the federal lands northwest of Lake Owen as this area contains Maintenance Level 2 and 3 USFS roads.
Fire Occurrence	moderate
Homes	171
Businesses	3
Assessed Value of Improvements	residential - $ 27,700,500 commercial - $ 1,911,700
Jurisdiction	Drummond Fire Department (structure protection), USFS (wildfire suppression)
Sensitive Facilities	none
Essential Infrastructure	water points - 3 (a,b,h)
Community Values	Timber values, water quality values, recreational area, Tahkodah Hills Golf Course, North Country Trail
Preparedness capability	See **Table 14** and page 65

Pigeon Lake Planning Unit	
General Description	The Pigeon Lake planning unit includes lands directly abutting Pigeon Lake and development along CTH N to the west. Lakefront development is generally modest, with seasonal and year-round residences present. Development along CTH N is predominantly seasonal/recreational housing. The unit is bounded by the Chequamegon-Nicolet National Forest.
Hazard rating	moderate (mean = 2.68)
Land Management	federal (71.5%) private (28.5%)
Area	4.9 square miles
Access	Primary access is provided via CTH N. Pigeon Lake Road provides access to the north side of the lake.
Fire Occurrence	low
Homes	50
Businesses	none
Assessed Value of Improvements	residential - $ 2,221,200 commercial - $ 0
Jurisdiction	Drummond Fire Department (structure protection), USFS (wildfire suppression)
Sensitive Facilities	Pigeon Lake Field Station, old mission site
Essential Infrastructure	1 water point (b)
Community Values	timber values, water quality values, recreational area, trail
Preparedness capability	See **Table 14** and page 65

Wilderness Planning Unit (Rainbow Lake Wilderness & Flynn Lake Wilderness Study Area)	
General Description	The Rainbow Lake Wilderness was federally designated as wilderness area in 1975. This area is found within the Chequamegon-Nicolet National Forest in portions of the Town's of Drummond and Delta. The general physiography is rolling uplands, containing 16 small lakes and 9 small ponds. The wilderness is a popular recreation spot, with numerous hiking trails (including the North Country Trail) and backcountry camping opportunities. This area was designated as a planning unit due to the fire management/suppression implications associated with wilderness. The Flynn Lake Wilderness Study Area adjoins the Rainbow Lake Wilderness, extending southward to the Community of Drummond. This 6,300 acre tract is currently managed by the Forest Service as a Semi-Primitive Non-Motorized (SPNM) Area.
Hazard Rating	low (mean = 2.27)
Land Management	federal (98.6%) county (0.0%) private (1.4%)
Area	16.5 square miles
Access	Access is limited. The main point of access to the south is Reynard Lake Road (FR 392), an un-paved, Maintenance Level 3 FS road. This route is not adequately maintained for emergency vehicle ingress and egress, although it is possible. Access to the east side is provided along the Delta-Drummond Road (FR 223), a paved, 2-lane roadway which is maintained by the Town of Drummond. Access along the west side is provided by the North Delta Road (FR 228) an unpaved forest road. Points along this route are generally accessible by vehicle. Vehicle access to the wilderness interior is not possible via forest roads or trails. Low level maintenance of forest roads, environmental hazards such as washouts and downed timber could further reduce access.
Fire Occurrence	low
Homes	2
Businesses	none
Assessed Value of Improvements	residential - $87,700 commercial - $ 0
Jurisdiction	Drummond Fire Department (structure protection), USFS (wildfire suppression)
Sensitive Facilities	None
Essential Infrastructure	1 water point (a)
Community Values	recreational area, timber values, North Country Trail
Preparedness Capability	See **Table 14** and page 65

Forest Boundary Planning Unit	
General Description	Western boundary area of Chequamegon-Nicolet National Forest in the Town of Drummond. Limited residential development present, primarily along the CTH N corridor. Predominantly federal land ownership.
Hazard rating	moderate (mean = 2.86)
Land Management	federal (90.4%) county (0.0%) private (9.6%)
Area	31.4 square miles
Access	Primary access routes include County Highway N (east-west) and County Highway A (north-south, along west boundary). Beck Road (FR 229) is the primary north-south corridor, with numerous Forest Roads bisecting the interior.
Fire Occurrence	low
Homes	51
Businesses	0
Assessed Value of Improvements	residential $1,648,000 commercial $0
Jurisdiction	Drummond Fire Department (structure protection), USFS (wildfire suppression)
Sensitive Facilities	none
Essential Infrastructure	none
Community Values	trails, timber values, recreation values, water quality values
Preparedness Capability	See **Table 14** and page 65

PLANNING UNITS IN THE TOWN OF BARNES

Eau Claire Lakes North Planning Unit	
General Description	The Eau Claire chain of lakes is one of northwestern Wisconsin's premiere recreational and vacation destinations. The chain is comprised of 11 connected spring-fed lakes surrounded by pines and northern hardwoods. The area has a high degree of second home/recreational housing development, and several commercial businesses. This area was designated as a planning unit due to the existing development and the high hazard fuel types present.
Hazard rating	high (mean = 3.38)
Land Management	county (4.3%) private (95.7%)
Area	22.3 square miles
Access	Access is generally very good. Main routes through the unit include STH 27, CTH Y and CTH N. Numerous Town roads provide access to individual parcels within the interior and along the lakeshores. Bayfield County Forest lands are present along the north boundary of the planning unit. Road access within these areas is limited to low maintenance forest roads and trails.
Fuel Hazards	Forest cover types present include jack pine, grasslands, red pine and mixed deciduous/coniferous forest. Fuel Hazard ratings are generally moderate to high.
Fire Occurrence	moderate to high
Homes	617
Businesses	26
Assessed Value of Improvements	residential - $ 39,794,800 commercial - $ 2,178,400
Jurisdiction	Barnes Fire Department (structure protection), Wisconsin Department of Natural Resources (wildfire suppression)
Sensitive Facilities	retirement center, Barnes Fire Department, Barnes Town Hall, community church
Essential Infrastructure	communications structure, 8 water points (a-3, b-2, c-3)
Community Values	tourist destination, resorts, recreation values, timber values, church, town facilities
Preparedness Capability	See **Table 13** and page 64

Eau Claire Lakes South Planning Unit	
General Description	Similar to Eau Claire Lakes North, with the exception of generally lower fuel hazard ratings. Chosen as a planning unit due to high density housing.
Hazard rating	moderate (mean = 2.86)
Area	9.1 square miles
Land Management	private (100.0%)
Access	Ingress and egress is provided mainly via paved Town roads. State Highway 27 runs north-south through the planning unit, and would likely serve as a primary escape route. Access to CTH N to the north is possible via Pease Road or Tars Pond Road from the east side of the planning unit.
Fuel Hazards	Dominant forest cover types include mixed broad leaved deciduous, red pine and mixed coniferous/deciduous forest. Fuel model types present generally have a hazard rating of low to moderate.
Fire Occurrence	low to moderate
Homes	299
Businesses	9
Assessed Value of Improvements	residential - $ 24,277,600 commercial - $ 921,300
Jurisdiction	Barnes Fire Department (structure protection), Wisconsin Department of Natural Resources (wildfire suppression)
Sensitive Facilities	none
Essential Infrastructure	4 water points (a-1, c-3)
Community Values	tourist destination, resorts, recreation values, timber values
Preparedness capability	See **Table 13** and page 64

Potawatomi Estates Planning Unit	
General Description	Potawatomi Estates is a large residential subdivision in the Town of Barnes. The development contains both seasonal/recreational and permanent housing units. This area was designated as a planning unit due to the high-density development present, road access and signage concerns and the presence of high hazard fuels.
Hazard rating	very high (mean = 3.57)
Land Management	county (33.8%) private (66.2%)
Area	9.1 square miles
Access	Ingress and egress for emergency vehicles is a significant issue within Potawatomi Estates. In some cases, roads are narrow and turnaround areas non-existent. Unimproved "sugar sand" roads pose additional access challenges. Adequate signage is also lacking. Access is limited within the Bayfield County Forest lands found along the northern border of the planning unit.
Fuel Hazards	Dominant forest cover types are Jack pine and mixed deciduous/coniferous forest. Surrounded by pine barrens, this area is generally assigned a high fuel hazard rating.
Fire Occurrence	moderate
Homes	294
Businesses	1
Assessed Value of Improvements	residential - $ 13,773,700 commercial - $ 12,500
Jurisdiction	Barnes Fire Department (structure protection), Wisconsin Department of Natural Resources (wildfire suppression)
Sensitive Facilities	historic buildings on island on Island Lake, property owner association improvements, recreational facilities, and campground
Essential Infrastructure	9 water points (a-1, b-1, c-7)
Community Values	structures, timber value, water quality values
Preparedness capability	See **Table 13** and page 64

Eight Mile Lake Planning Unit	
General Description	The Eight Mile Lake Planning Unit encompasses two separate tracts surrounding West & East Eight Mile Lakes. Currently, there is limited development within the planning unit, with structures confined to the East Eight Mile Lake segment. However, this unit has potential for future growth and development. This isolated planning unit is located within the pine barrens and associated high hazard fuels area.
Hazard rating	very high (mean = 3.64)
Land Management	federal (0.0%) county (83.7%) private (16.3%)
Area	3.0 square miles
Access	Access is limited. Webster Road provides access north-south, while Eightmile Lake Road provides east-west connectivity to County Highway A. Developed area is contained within wildland area (Bayfield County Forest). Access within BCF lands is limited to unmaintained roads and trails.
Fuel Hazards	Shrubland and mixed forest predominates. Surrounding area is a shrubland/pine barren containing jack pine, red pine shrubland and mixed forest. High hazard fuels area.
Fire Occurrence	low
Homes	6
Businesses	0
Assessed Value of Improvements	residential - $ 556,200 commercial - $ 0
Jurisdiction	Barnes Fire Department (structure protection), Wisconsin Department of Natural Resources (wildfire suppression)
Sensitive Facilities	none
Essential Infrastructure	none
Community Values	structures, timber value, water quality values
Preparedness capability	See **Table 13** and page 64

VII. HAZARDOUS FUELS REDUCTION

FUELS, FIRE HAZARD, RISK AND POTENTIAL VEGETATION TREATMENTS BY PLANNING UNIT

Planning units in the Town of Drummond

COMMUNITY OF DRUMMOND

Fuels	The Community of Drummond planning unit encompasses a broad area which includes the unincorporated hamlet of Drummond and adjoining Federal forest lands. Human development within this planning unit is largely confined to the hamlet area. Fuels consist of predominantly mature stands of northern hardwood along with some acreage of mixed white/red pine stands.
Fire Hazard and Risk	Low to moderate as these stands mostly have a hardwood/forb understory.
Potential Vegetation Treatments	Maintain open understory of forbs and hardwood brush. This planning unit spans 3 different management areas in the Chequamegon-Nicolet Land and Resource Management Plan (LRMP). South of highway 63 and county "N" even aged management that could include thinning, shelterwood, overstory removal, and clearcutting are possible treatments. Prescribed fire could also be used as an intermediate treatment or for regeneration. The northern half of the planning unit would be no harvest (northeast) or selective harvest (northwest). Prescribed fire would be a rare treatment in these management areas. No specific treatment areas are proposed at this time.

DRUMMOND SOUTH

Fuels	The more productive soils of this planning unit are conducive to the encroachment of understory conifers, consisting mostly of balsam. This conifer encroachment can add significantly to the fire hazard by torching the understory trees and facilitating the torching of overstory conifer. This leads to increased fire intensity and fire spread through spotting.

Fire Hazard and Risk	Fuel hazards range from low to high throughout the unit.
Potential Vegetation Treatments	Continue the treatment of conifer understory in the white/red pine stands in the area. Discourage the regeneration of shade tolerant conifers in future treatments of all timber types. Future treatments could include thinnings, shelterwood, overstory removal, and clearcutting. Avoid large blocks of pine regeneration >20 acres in the urban intermix. Prescribed burning would be the preferred follow up understory and regeneration treatment as it is more effective in long term control of understory conifer.

LAKE OWEN

Fuels	The fuels range from aspen regeneration (very low hazard) to fully stocked pine regeneration (high hazard). Fuels are fragmented and not continuous across the landscape. Even though a fire may burn with high intensity in one area the fragmentation of fuels should slow the growth of a large fire. At this time, understory conifer encroachment does not seem as prevalent as the Drummond South Planning unit.
Fire Hazard and Risk	Fuel hazards range from low to high throughout the unit.
Potential Vegetation Treatments	The management emphasis on federal land in this planning unit is for even age hardwood oak-aspen, oak-pine. Mechanical treatments to reach these goals include thinnings, shelterwood, overstory removal, and clearcutting. Intermediate and regeneration treatments in the oak and pine forest types should include prescribed fire. Treatments of all types should continue the fragmentation of fuels. Fuel hazard reduction treatments should focus in the urban intermix without ignoring the landscape fuel reduction and ecological benefits of prescribed fire across the planning unit. Prescribed fire should be reintroduced to the special management areas, one between the northern bays of Lake Owen, the other around Northeast Lake.

PIGEON LAKE

Fuels	The surrounding fuels are predominantly, mature white/red pine with an open understory.
Fire Hazard and Risk	Fuel hazards range from low to moderately high. The main risk to this area is a fire coming from the west from the more volatile Forest Boundary Planning Unit, especially along county road "N."
Potential Vegetation Treatments	Maintain the predominant cover in mature white/red pine. Maintain shaded fuel break along west side of forest road 230 (horse pasture grade). Retain fragmented fuels by regeneration of small (<20) acre blocks.

WILDERNESS

Fuels	Most of this area is comprised of mature hardwood, however about 700 acres of conifer blowdown from the 1999 storm remains. This remains hazardous as the fuels are still not in contact with the ground and an understory of shade tolerant conifer was released when the overstory blew down.
Fire Hazard and Risk	Low fire hazard except in the conifer blowdown areas which would be considered high. This blowdown is approximately 700 acres located east of forest road 228 (North Delta Road) and northeast of forest road 230 (horse pasture grade).
Potential Vegetation Treatments	No vegetative treatment is allowed in the Rainbow Lake Wilderness. Prescribed burning would be allowed in the blowdown areas in the Flynn Lake Wilderness Study Area.

FOREST BOUNDARY

Fuels	This area is part of what is known as the Northwest Sands Pine Barrens. Historically a mix of jack pine and scrub oak (west side of planning unit) feathering into open savanna-like red/white pine stands (east side of planning unit). Historically these systems were maintained by frequent fire (2-30 year return interval).
Fire Hazard and Risk	All the vegetation that this area supports is flammable. Ranging in fire intensities from a low intensity surface fire in the mature red/white pine types to running crown fire in the areas of pine regeneration. Due to the chemical make up of the fuels fire season tends to start early and linger well into green-up. The risk of fire running into this area from the west will increase with the continued fragmentation of land ownership east of the forest boundary.
Potential Vegetation Treatments	Due to the sand-gravel soils, conversion to less flammable forest types is not possible. Small blocks of pine regeneration, along with thinning at the first opportunity are possible mitigation measures. Remove conifer ladder fuels in older stands with the goal of an open understory with a crown base height of at least 20 feet. Thinning along with prescribed fire would be the recommended treatments.

Planning Units in the Town of Barnes

EAU CLAIRE LAKES NORTH

Fuels	The fuels found in this planning unit consist largely of jack pine, red pine, and scrub oak. Scattered inclusions of aspen are also common. This area has a high potential for fires to start and spread easily, and to become a large complex incident under even mild conditions. Fire behavior in these fuels will often involve high heat outputs, erratic flare-ups, and rapid rates of spread. Fuels will include structures, as well as other personal property (vehicles, boats, etc.) and infrastructure (utility poles, bridge support features, etc.).
Fire Hazard and Risk	High, especially with the high concentration of structures throughout this fuel type and in light of the fact that the leading causes of wildfires currently are human caused.
Potential Vegetation Treatments	Maintain forest health on public lands and whatever private lands are possible to lessen fuels issues (harvesting mature trees, slash treatments, reforestation of less fire volatile tree species, fuel break establishment and maintenance, being proactive to insect and disease issues, etc.). Brush roadways and utilize other fuel breaks where possible to interrupt the contiguous pine monotype. Work with utility companies to train crews in hazard tree identification and to promote good routine ROW maintenance. Work with individual landowners and landowner groups to organize Firewise Community related projects around homes to create defensible space (i.e. sponsor a “chipping day”, etc.). Work with staff from the industrial forest ownership within the unit to share concerns regarding wildfire, and discuss harvesting and planting options that would lessen the pine monotype, provide less volatile fuel on the landscape, and partner with them in utilizing their lands for fuel breaks, prevention signs locations, and landowner workshops on sustainable management of the forests in the Great Lakes States.

Other Mitigation	Continued contacts with public on wildfire related issues (making their property less fire prone, the potential the area has, etc.). Work with the Town of Barnes to widen roads, provide better signage, and address roads and bridges that will not support the weight of most fire apparatus. Improve existing water points and explore opportunities to add additional ones to access water supply for fire suppression. Work with the Town of Barnes to identify further training and equipment needs necessary for the Barnes Fire Department to be able to support safe and efficient suppression of wildfires. Continue to offer fire prevention programs to all age groups, exploring also opportunities to add additional fire danger and other prevention signs throughout the project unit. Work with local officials to resolve issues through ordinance or some other means to address private driveways and private roads that limit or inhibit access by fire apparatus.

EAU CLAIRE LAKES SOUTH

Fuels	While some pine is present throughout, the forest cover type in this project unit tends to be aspen, with a mixture of white and red pine, and northern hardwoods. Fire behavior in this unit is generally a low to moderate intensity surface fire, with occasional flare-ups common in areas of younger pines or where there is heavy slash loading.
Fire Hazard and Risk	Moderate. The primary hazard in this unit is the “human factor” being the leading cause of wildfire starts, and the numbers of structures in close proximity to each other and to forest fuels.
Potential Vegetation Treatments	Maintain forest health on public lands and whatever private lands are possible to lessen fuels issues (harvesting mature trees, slash treatments, reforestation of less fire volatile tree species, fuel break establishment and maintenance, being proactive to insect and disease issues, etc.). Brush roadways and work with utility companies to train crews in hazard tree identification and to promote good routine ROW maintenance. Work with individual landowners and landowner groups to organize Firewise Community related projects around homes to create defensible space (i.e. sponsor a “chipping day”, etc.).

Other Mitigation	Continued contacts with public on wildfire related issues (making their property less fire prone, the potential the area has, etc.). Work with the Town of Barnes to widen roads, provide better signage, and address roads and bridges that will not support the weight of most fire apparatus. Improve existing water points and explore opportunities to add additional ones to access water supply for fire suppression. Work with the Town of Barnes to identify further training and equipment needs necessary for the Barnes Fire Department to be able to support safe and efficient suppression of wildfires. Continue to offer fire prevention programs to all age groups, exploring also opportunities to add additional fire danger and other prevention signs throughout the project unit. Work with local officials to resolve issues through ordinance or some other means to address private driveways and private roads that limit or inhibit access by fire apparatus.

POTAWATOMI ESTATES

Fuels	The fuels found in this project unit consist largely of jack pine, red pine, and scrub oak. Scattered inclusions of aspen are also common. This area has a high potential for fires to start and spread easily, and to become a large complex incident under even mild conditions. Fire behavior in these fuels will often involve high heat outputs, erratic flare-ups, and rapid rates of spread. Fuels will include structures, as well as other personal property (vehicles, boats, etc.) and infrastructure (utility poles, bridge support features, etc.).
Fire Hazard and Risk	Very high, especially with the high concentration of structures throughout this fuel type and in light of the fact that the leading cause of wildfires currently are human caused. Soils in this unit tend to be sand that absorbs moisture and dries out quickly, leaving little for vegetation.
Potential Vegetation Treatments	Maintain forest health on public lands and whatever private lands are possible to lessen fuels issues (harvesting mature trees, slash treatments, reforestation of less fire volatile tree species, fuel break establishment and maintenance, being proactive to insect and disease issues, etc.). Brush roadways and utilize other fuel breaks where possible to interrupt the contiguous pine monotype. Work with utility companies to train crews in hazard tree identification and to promote good routine ROW maintenance. Work with individual landowners and landowner groups to organize Firewise Community

related projects around homes to create defensible space (i.e. sponsor a "chipping day", etc.). Work with staff from the industrial forest ownership within the unit to share concerns regarding wildfire, and discuss harvesting and planting options that would lessen the pine monotype, provide less volatile fuel on the landscape, and partner with them in utilizing their lands for fuel breaks, prevention signs locations, and landowner workshops on sustainable management of the forests in the Lake States.

Other Mitigation	Continued contacts with public on wildfire related issues (making their property less fire prone, the potential the area has, etc.). Work with the Town of Barnes to widen roads, provide better signage, and address roads and bridges that will not support the weight of most fire apparatus. Improve existing water points and explore opportunities to add additional ones to access water supply for fire suppression. Work with the Town of Barnes to identify further training and equipment needs necessary for the Barnes Fire Department to be able to support safe and efficient suppression of wildfires. Continue to offer fire prevention programs to all age groups, exploring also opportunities to add additional fire danger and other prevention signs throughout the project unit. Work with local officials to resolve issues through ordinance or some other means to address private driveways and private roads that limit or inhibit access by fire apparatus.

EIGHT MILE LAKE

Fuels	The fuels found in this project unit consist largely of jack pine, red pine, and scrub oak. Scattered inclusions of aspen are also common. Of particular concern within this unit are the contiguous pine fuels surrounding and throughout the unit, which include several red pine plantations found on Bayfield County Forest lands and lands owned by Wausau Mosinee Paper. This area has a high potential for fires to start and spread easily, and to become a large complex incident under even mild conditions. Fire behavior in these fuels will often involve high heat outputs, erratic flare-ups, and rapid rates of spread. Fuels will include structures, as well as other personal property (vehicles, boats, etc.) and infrastructure (utility poles, bridge support features, etc.).
Fire Hazard and Risk	Very high. Soils in this unit tend to be sand that absorbs moisture and dries out quickly, leaving little for vegetation.

Potential Vegetation Treatments	Maintain forest health on public lands and whatever private lands are possible to lessen fuels issues (harvesting mature trees, slash treatments, reforestation of less fire volatile tree species, fuel break establishment and maintenance, being proactive to insect and disease issues, etc.). Brush roadways and utilize other fuel breaks where possible to interrupt the contiguous pine monotype. Work with utility companies to train crews in hazard tree identification and to promote good routine ROW maintenance. Work with individual landowners and landowner groups to organize Firewise Community related projects around homes to create defensible space (i.e. sponsor a “chipping day”, etc.). Work with staff from the industrial forest ownership within the unit to share concerns regarding wildfire, and discuss harvesting and planting options that would lessen the pine monotype, provide less volatile fuel on the landscape, and partner with them in utilizing their lands for fuel breaks, prevention signs locations, and landowner workshops on sustainable management of the forests in the Lake States.
Other Mitigation	Continued contacts with public on wildfire related issues (making their property less fire prone, the potential the area has, etc.). Work with the Town of Barnes to widen roads, provide better signage, and address roads and bridges that will not support the weight of most fire apparatus. Improve existing water points and explore opportunities to add additional ones to access water supply for fire suppression. Work with the Town of Barnes to identify further training and equipment needs necessary for the Barnes Fire Department to be able to support safe and efficient suppression of wildfires. Continue to offer fire prevention programs to all age groups, exploring also opportunities to add additional fire danger and other prevention signs throughout the project unit. Work with local officials to resolve issues through ordinance or some other means to address private driveways and private roads that limit or inhibit access by fire apparatus.

HAZARDOUS FUELS REDUCTION PROJECTS – CHEQUAMEGON-NICOLET NATIONAL FOREST

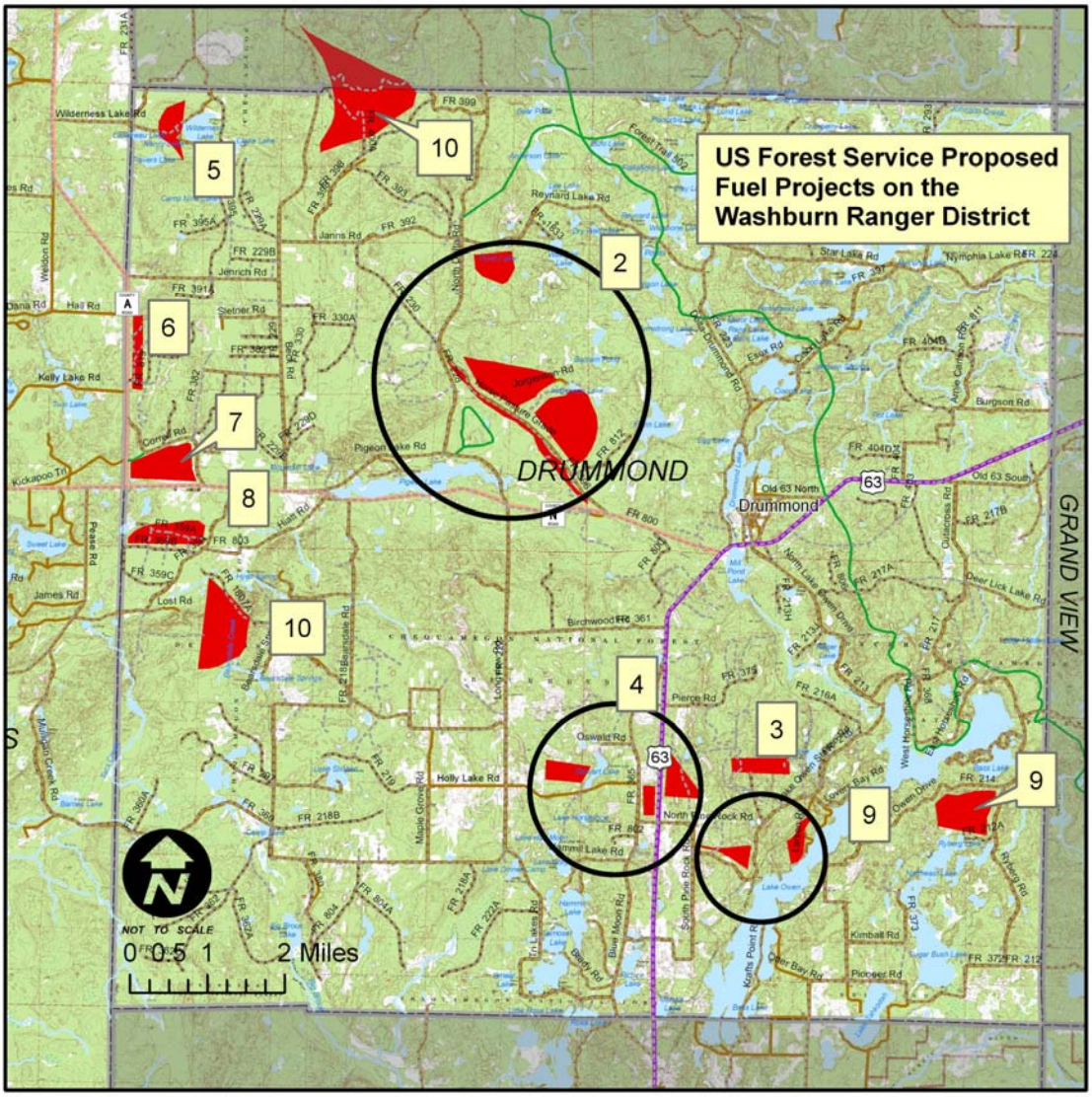
Table 10, Site Specific Projects, Chequamegon-Nicolet National Forest

Project #	Planning Unit	Type of Project	Activities	Description
1	Pigeon Lake	Shaded fuel break.	Mechanical treatment and Rx burning	Maintenance of a shaded fuel break 2-3 chains wide along the West side of FR230. 40-60 acres.
2	Wilderness	Hazardous fuel reduction from blowdown.	Prescribed burning	Remove hazardous fuels on approximately 700 acres of coniferous blowdown in the Flynn Lake wilderness study area.
3	Lake Owen	Hazardous fuel reduction.	Prescribed burning and/or mechanical site prep	Remove hazardous fuels on approximately 120 acres in the large white/red pine stand between Hwy 63 & Lake Owen.
4	Drummond South	Hazardous fuel reduction.	Mechanical and/or Rx burning	Continue ladder fuel removal and incorporate this objective in future treatments in the south Drummond area. 250 acres.
5	Forest Boundary	Hazardous fuel reduction.	Prescribed burning and/or mechanical site prep	Remove hazardous fuels on approximately 100 acres around Wilderness Lake. Pine stand with a coniferous understory.
6	Forest Boundary	Hazardous fuel reduction.	Mechanical with some Rx burning	Remove hazardous fuels on approximately 250 acres on the east side of A before it turns off on the forest.
7	Forest Boundary	Hazardous fuel reduction.	Mechanical followed by Rx burning	Remove hazardous fuels on 200 acres Northeast of the junction of County Rd N & A. Remove ladder fuels and underburn in order to remove hazardous fuels.

Table 10, Site Specific Projects, Chequamegon-Nicolet National Forest

Project #	Planning Unit	Type of Project	Activities	Description
8	Forest Boundary	Ecosystem maintenance, Restoration and hazardous fuel reduction.	Prescribed burning and/or mechanical site prep	South of the junction of County Rd N & A blowdown salvage was completed on approximately 100 acres. Underburn to maintain in an open savanna condition with natural regeneration.
9	Lake Owen	Hazardous fuel reduction, natural regeneration.	Mechanical treatment with possible Rx burning site preparation	Salvage/Thinning treatments in recent pine or mixed wood wind damage. Followed by mechanical or Rx burning for natural or artificial regeneration. 800 acres.
10	All in Town of Drummond	Ecosystem Restoration, Maintenance and hazardous fuel reduction.	Rx burning	Reintroduction of fire to restore/maintain/protect the fire dependant ecosystems present in the Research Natural Areas, Special Management Complexes, and old growth complexes located in Drummond Township. 500 acres.

Figure 14, Proposed Hazardous Fuels Reduction Projects, US Forest Service

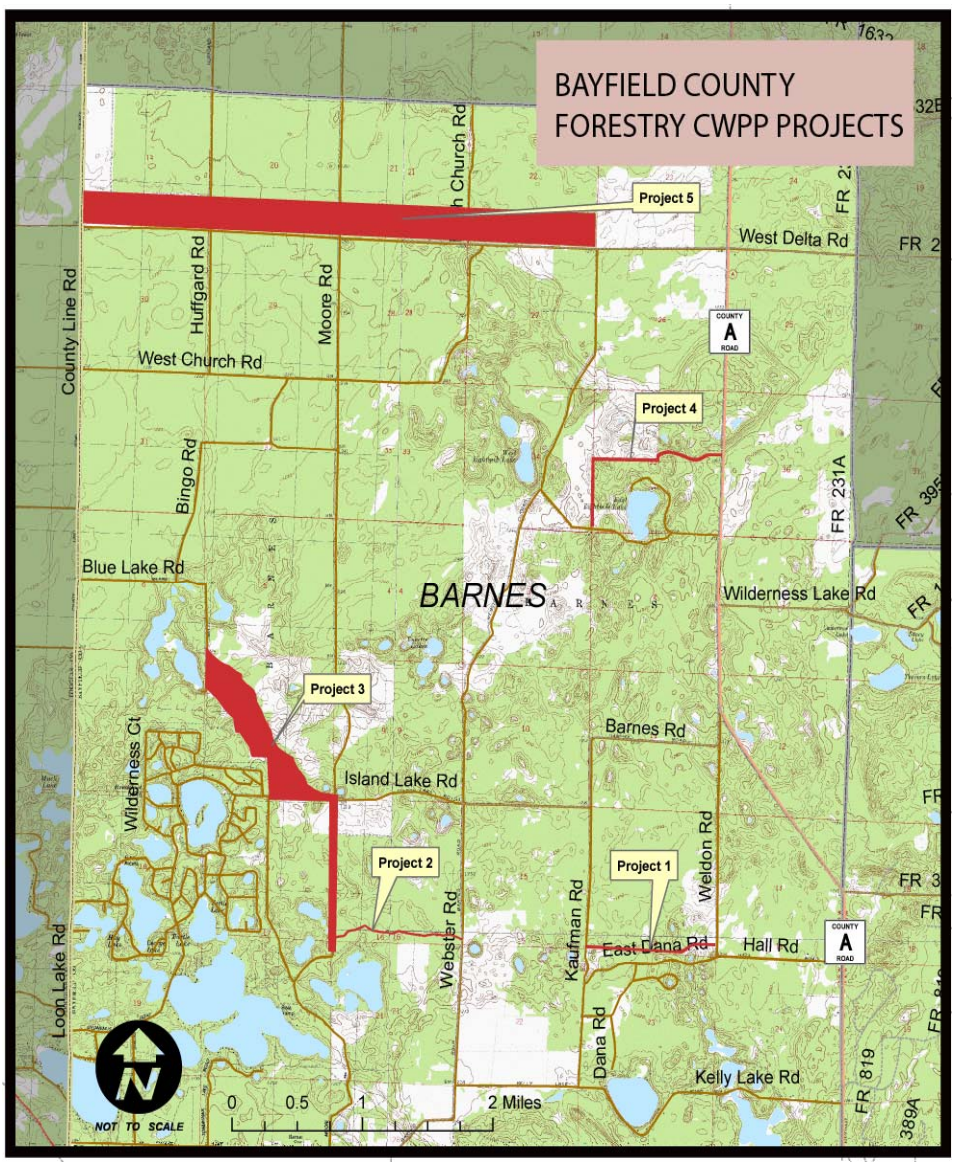


HAZARDOUS FUELS REDUCTION PROJECTS – BAYFIELD COUNTY FOREST

Table 11, Hazardous Fuels Reduction Projects, Bayfield County Forest

Project #	Planning Unit	Type of Project	Activities	Description
1	Upper Eau Claire Lakes	Fuel break development and maintenance	Prescribed burning and/or Mechanical site prep	Development & maintenance of 100' wide fuel break for one mile along south side sec. 14 45n.-r.9.w connecting Kaufmann rd & Weldon Rd. This will be separating county red pine plantation to the north from private development to the south.
2	Upper Eau Claire Lakes	Fuel break development and maintenance	Prescribed burning and/or Mechanical site prep	Development & maintenance of 100' wide fuel break for one mile along south side sec. 16 45n.-r.9.w connecting Barnes Rd & Weldon Rd. This will be separating county red pine plantation to the north from private development to the south.
3	Potawatomi	Fuel break maintenance	Prescribed burning and/or Mechanical site prep	2 ½ mile long fuel break 100' wide up to ¼ mile wide located along the Blue Lake Rd and Moore Rd. sec. 8,16&17 45n.-r9w
4	Eight Mile Lake	Fuel break development and maintenance	Prescribed burning and/or Mechanical site prep	Development of fuel break 100' wide on the west and north side of Eight Mile Lake. Private ownership and an improved escape route to the north or east.
5	Potawatomi and Upper Eau Claire Lakes	Fuel break maintenance	Prescribed burning and/or Mechanical site prep	4 mile long break ¼ mile in width on the north side of halfway road between Webster and County Line Rd. This will provide a fuel break about mid-way in a large contiguous block of jack pine

Figure 15, Hazardous Fuels Reduction Projects, Bayfield County



VIII. FIRE MANAGEMENT

Approximately 70 percent of the project area is owned and managed by public agencies (**Table 12**). In Drummond, the largest landowner is the federal government, which owns and manages 80,286 acres. The federal agency responsible for forest management is the United States Forest Service (USFS), which manages these lands as part of the Chequamegon-Nicolet National Forest (CNNF). In the Town of Barnes, largest landowners are Bayfield County and private industrial forest corporations. County owned lands are managed as public County Forest lands under the 1927 Forest Crop Law which authorized counties to create county forests from tax delinquent lands. Fire suppression/management activities are carried out in accordance with the land management plans of each respective jurisdiction and through cooperative agreements between jurisdictions. In the Town of Drummond, the USFS is responsible for initial attacks on wildfires. The WDNR is responsible for initial attack on wildfires throughout the Town of Barnes.

Table 12, Land Ownership/Management Acreage

	Barnes	Drummond	Total
Chequamegon-Nicolet National Forest	0	80,286	80,286
Bayfield County Forest	39,507	0	39,507
Plum Creek Timberlands	10,965	362	11,327
Mosinee Paper	4,186	0	4,186
Privately Owned Lands (Non-Industrial Forest)	18,284	13,149	31,433

Source: Bayfield County Tax Roll

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

While there is limited state land ownership within the project area, the Wisconsin Department of Natural Resources does have wildfire authority and jurisdiction on county and privately-owned lands. Wildfire management involves the control, containment, and suppression of a wild or uncontrolled fire. Wildfire managers prioritize the protection of lives, property, and resources – in that order. The challenge of every manager is to minimize the damage done by wildfire, while at the same time ensuring the safety of everyone involved.

The protection of forest resources is vital to maintain the economics and aesthetics of Wisconsin forests. WDNR works to reduce wildfire risks by implementing various mitigation strategies. Prescribed fire is used to accomplish specific land management objectives, such as fuels reduction. While accomplishing this objective, the prescribed fire may provide additional benefits such as improved wildlife habitat and control of invasive species. WDNR also works with other agencies, such as Bayfield county, to create fuel breaks. Such breaks can slow the spread of wildfire, thus limiting potential

fire damage. Drivable fuel breaks also allow fire suppression crews to more easily access the wildfire area, speeding up suppression and mop-up.

Outdoor burning by private citizens is discouraged because of air quality concerns and the wildfire hazard. People are encouraged to consider environmentally sound alternatives such as recycling, composting, or creating brush piles for wildlife habitat. However, with proper permits, individuals may burn small amounts of dry leaves, plant clippings, and brush as long as weather conditions do not pose a fire hazard. In the Barnes-Drummond area, burning permits are required whenever the ground is not snow covered.

Wildfire detection involves citizen reporting, WDNR aircraft, and fire towers strategically located throughout the state. During fire season, the lookout towers and aircraft report fires to the dispatchers in the dispatch groups (Figure 16) spread across the state.

As stated in Wisconsin Statutes 26.11, "The Department is vested with power, authority and jurisdiction in all matters relating to the prevention, detection and suppression of forest fires outside the limits of incorporated villages and cities in the state except as provided in sub (2), and to do all things necessary in the exercise of such power, authority and jurisdiction."

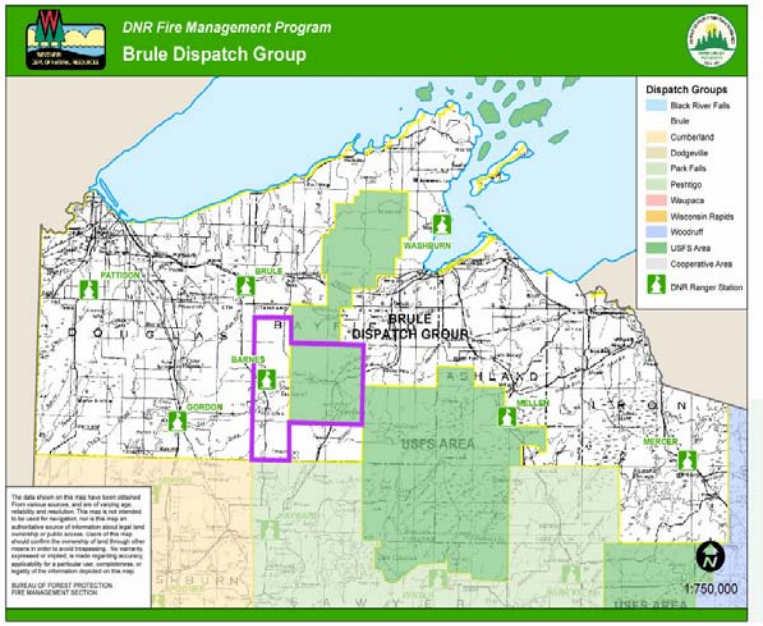


Figure 16, Brule Dispatch Group

Source: Wisconsin DNR

US FOREST SERVICE – CHEQUAMEGON-NICOLET NATIONAL FOREST

The fire management program on the Chequamegon-Nicolet National Forest consists of three basic factors: fire suppression, prescribed fire for ecosystem maintenance and restoration, and hazardous fuels reduction.

Current management direction allows prescribed fire as a management tool. Prescribed fire has been commonly used as a habitat management tool in the Moquah Barrens and Riley Lake wildlife areas. To a lesser extent, prescribed fire is used for maintenance of non-forested openings, reforestation, and activity fuels and hazardous fuels reduction. To a minor degree, this tool has been used for ecosystem restoration activities such as underburning in pine, oak, and birch. As more effort is made toward ecosystem restoration and with increasing attention towards hazardous fuels reduction, the opportunities for using prescribed burning are likely to increase, provided it is found socially acceptable and the necessary resources are available.

USFS fire responsibility for all lands within the Forest boundary in Bayfield Co. (& other counties) is stated in a Cooperative Fire Agreement between the DNR and USFS. The Forest does not rely on local volunteer fire departments to assist in wildfire suppression.

Current Forest policy dictates complete suppression of all wildfire starts. This policy is due in part to the complex intermix of ownerships, in part to avoid compromising marketability of timber due to char, and in part to keep fire suppression costs and impacts on the land to a minimum. According to the Federal Wildland Fire Policy, human life is the highest priority for protection, followed by property and natural or cultural resources. Prioritization at his point is based on relative values to be protected, commensurate with fire management costs.

Within the wilderness, semi-primitive non motorized areas, and ecological reference areas, higher value is placed on the lack of human-caused disturbance. As such, fire suppression by hand tools is the first line of defense against wildfires. Policy on the Chequamegon-Nicolet National Forests allows mechanized fire suppression tactics in these areas should hand tools prove inadequate.

BAYFIELD COUNTY FOREST

The Bayfield County Forest was established on April 25, 1932 from 124,711 acres of tax delinquent lands. Currently the Forest contains about 168,000 acres. County Forest lands are managed for multiple uses including timber, wildlife, soil, water and recreation, with management direction provided by the current Bayfield County Forest Comprehensive Land Use Plan.

Fire suppression responsibilities on Bayfield County Forest are defined through State Statute. Per this Statute, the WDNR is responsible for suppression of all fires within the unincorporated areas, including County Forest lands. The WDNR is also responsible for the protection and suppression of any improvements threatened by forest fires. Bayfield County provides manpower and equipment as requested by WDNR to assist in fighting forest fires.

Bayfield County, with the assistance of Wisconsin Department of Natural Resources plans for, develops and maintains a system of fuel breaks in areas of extensive hazardous fuels. In addition to the 6 ½ miles of fuel breaks designated in the Forest Plan a series of fuel break road projects are currently in the planning process for the Bayfield County Forest. These road projects consist of upgrading selected existing town and forest roads and the development of new forest roads in areas of extensive hazardous fuels. These road projects will require the clearing of all hazardous fuels 50 feet on either side of the centerline of the road right-of-way.

Bayfield County is responsible for the planning and implementation of prescribed fire as a management tool on County Forest Land. Bayfield County actively uses prescribed fire for habitat maintenance, site preparation for reforestation projects, hazardous fuel reduction projects and red oak regeneration release. As new vegetation management opportunities present themselves prescribed fire will likely become a more frequently used management tool on the County Forest.

The County will initiate programs and actions to mitigate wildfire hazards. Wildfire pre-suppression activities will be carried out in coordination with the WDNR, local towns and fire departments, US Forest Service, and others as appropriate. Fire mitigation measures on timber sales may include the lopping and scattering of slash and slash free zones along property lines and access roads. Timber sale contracts will also have provisions to modify harvest operations depending on the fire danger and stipulate suppression responsibilities of the purchaser.

WDNR FIRE RESPONSE RESOURCES

The Wisconsin Department of Natural Resources operates 57 ranger stations statewide which support forest fire prevention and suppression efforts. These stations are staffed with trained wildland firefighters and are equipped with wildland fire apparatus, equipment, and other supplies.

Since initial response and suppression efforts are most crucial to limiting the damages from wildland fires in Wisconsin, this section outlines the WDNR personnel and apparatus that would be available within a 1 hour response radius for the Barnes-Drummond vicinity. Additional WDNR resources stationed beyond 1 hour would be requested for a large forest fire but to evaluate the resources available for initial attack, only those resources stationed within the 1 hour (approx. 50 miles) response radius are listed below in **Table 13**.

Table 13, WDNR Wildfire Suppression Resources (1 hour response window)

Station	Personnel	Apparatus
Barnes RS	1 forester ranger 1 forester 2 forestry technicians	1 Type 7 engine 1 Type 8 engine 2 Type 4 engines
Brule RS	1 forester ranger 2 forestry technicians 2 foresters	1 Type 7 engine 2 Type 4 engines 1 Type 8 engine
Gordon RS	1 forester ranger 2 forestry technicians 1 forester 1 forestry team leader	1 Type 7 engine 2 Type 4 engines 2 Type 8 engines
Pattison RS	1 forester ranger 1 forestry technician	1 Type 7 engine 1 Type 4 engine
Minong RS	1 forester ranger 3 forestry technicians	1 Type 7 engine 2 Type 4 engines 1 heavy dozer
Hayward RS	1 forester ranger 2 forestry technicians 1 forester 1 forestry team leader	1 type 7 engine 2 Type 4 engines 2 Type 8 engines

Table 13, WDNR Wildfire Suppression Resources (1 hour response window)		
Washburn RS	1 forester ranger 1 forestry technician	1 Type 7 engine 1 Type 4 engine
Siren Airport Solon Springs Airport	1 WDNR pilot 1 contract pilot	1 patrol/air attack plane 1 Single Engine Air Tanker

Source: Wisconsin Department of Natural Resources

In addition to these personnel and resources, WDNR does hire limited term employees as seasonal firefighters to assist with suppression and detection efforts. Each ranger station also has a cache of firefighting pumps, hose, and hand tools to equip additional fire fighters. The Brule Dispatch Group also has available an incident management team with a support trailer that carries the supplies to operate a field incident command post. And many ranger stations have remote automated weather stations which provide live weather conditions that are available electronically.

INTERAGENCY COOPERATION

The DNR has a number of mutual aide agreements with local fire departments, county forests, federal agencies, private contractors, neighboring state agencies involved with fire control, and the Province of Ontario. DNR often contracts larger pieces of heavy equipment and suppression aircraft annually to augment existing resources. The DNR is prepared to mobilize all units to anywhere across the state as need arises, as in the case of the recent Cottonville Fire. DNR also has access to requesting resources nationwide through the Eastern Area Coordination Center.

TRAINING

Education and training are two important activities needed to create a successful community wildfire fire prevention and suppression program. There currently is, and have been, several efforts to provide education and training for the communities of Barnes and Drummond.

Fire prevention education efforts include:

1. Past funding and implementation of a Firewise prevention program. A part time employee with supporting educational materials has given presentations at Community events over the past few years.
2. WDNR employees have spoke at annual lake association meetings and Town board Meetings.
3. WDNR employees have participated in the annual 4th of July parades.
4. WDNR employees have made several individual contacts with residents to inform them of burning rules and how to safely burn.

Fire suppression training efforts include:

1. Participation of WDNR employees at Barnes and Drummond Volunteer Fire Department meetings throughout the year. Also, monthly participation of WDNR at Bayfield County Fire Association meetings.
2. Annual spring pre-fire season training of Barnes and Drummond VFD's.
3. Semi-annual interagency training in the form of both mock fire and ICS modeled Incident Management Team exercises often using scenarios within the Barnes and Drummond Communities.

In the late summer of 2007 a mock fire exercise will be conducted in the Town of Barnes. This exercise will be a large scale simulation of a wildfire burning in the Town of Barnes. Fire fighting, law enforcement and disaster relief personnel from Bayfield and Douglas counties will participate in this effort.

Additional efforts might include:

1. House to house visits by someone from the wildfire service to help residents assess and suggest improvements to conditions around their homes to prevent damage by wildfire.

2. Involvement of VFD personal in WDNR/Bayfield County Forest prescribed burns to help them become more familiar with wildfire behavior.

There will likely be other future ideas for education and training that originate from requests and ideas from residents of the Barnes and Drummond. With their input, future programs can be developed and presented.

FEDERAL RESOURCES

The US Forest Service provides wildlfire suppression resources for the Chequamegon-Nicolet National Forest and surrounding area. USFS resources are stationed at various District office locations on the Chequamegon-Nicolet National Forest, depending upon fire danger in a given locale. The Chequamegon-Nicolet share a central dispatch office located in Woodruff. During the spring fire season (usually the month of May) the Eastern Region of the Forest Service stations a type III helicopter with a 6-person module in Rhinelander. This helicopter is available for wildfire response with about a 40 minute response time. Wildfire detection is done by aircraft also out of Rhinelander, two detection aircraft are available with pilot and a Forest Service aerial observer.

Federal fire suppression resources for an initial attack which are available within a 1 hour response time window are depicted below in **Table 14**.

District Offices or fire resource locations
Washburn District Office (Washburn)
Clam Lake Work Station (1 mile east of Clam Lake on STH 77)
Hayward District Office (Hayward)

Table 14, Federal Wildfire Suppression Resources (1 hour response window)

Resource	Quantity	Description
Type 6 Fire Engines	2	300 gallons, 4x4, foam, 2 firefighters per engine
Type 7 Fire Engines	2	125 gallons, 4x4, foam, 2 firefighters per engine
Type 5 Tractor Plow/Dozer	2	JD-550 dozer with plow attached. One operator per dozer. Stationed at the Clam lake Work Station and Washburn Ranger District during spring fire season.
Firefighters	15-20	
Miscellaneous		Numerous pumps, miles of hose, ATV's

Source: US Forest Service

LOCAL RESOURCES

Barnes Fire Department

The Barnes Fire Department provides wildfire suppression to the Town of Barnes and southern half of the Town of Highland in Douglas County. The BFD has 17 volunteer firefighters, 10 of whom are certified in wildfire suppression. Incident notification is by page from the Bayfield County Communications Center, with response varying based on availability. A minimum of 4 firefighters normally responds to most pages. BFD's ISO Public Protection Classification Rating is 9-10. Equipment resources include three (3) vehicles:

- Engine with 1,000 gallons of water on board
- Engine/Tender with 2,000 gallons on board
- Tender with 2,000 gallons on board, with pump and roll capabilities

Barnes Fire Department has a mutual aid agreement with all fire departments in Bayfield County. Fire departments in Douglas County may also be contacted to respond to a wildfire in the Town of Barnes with personnel and/or equipment.

Drummond Fire Department

The Drummond Fire Department operates out of the Fire Hall located in the unincorporated community of Drummond and has a primary service area of 143.2 square miles (including Federal lands). DFD's ISO Public Protection Classification Rating is 6. The Department has a roster of 21 with an average turnout of 12 to 15 members during the nights and weekends, and average turnout of 3 to 6 during the weekdays. 10 members are trained in wildfire suppression. Equipment resources include three (3) vehicles:

- Engine with 1,200 gallons of water on board and a 1,200 gpm pump with class A foam capabilities.
- Tender with 2,000 gallons of water on board and a 500 gpm pump also with class A foam capabilities as well as pump and roll capability.
- Rescue with all the basic hand tools shovels, picks, fire swatters, etc.

Drummond Fire Department has a mutual aid agreement with all fire departments in Bayfield County. Fire departments outside of the county may also be contacted to respond to a wildfire in the Town of Drummond with personnel and/or equipment. Likewise, Drummond may be requested to provide aid or resources, as needed. Drummond also provides aid the Wisconsin Department of Natural Resources and the US Forest Service.

LOCAL EQUIPMENT NEEDS

Both communities have expressed a need to improve communications capability. Currently, neither Town has the capability to communicate adequately with Federal firefighting resources due to radio incompatibility. This represents a tactical and safety problem for both Towns' fire personnel.

The Town of Drummond has a need for additional vehicle/equipment storage space, as well as a brush vehicle. Presently, a portion of the Town's garage is being used for an engine/tender housing, as well as fire equipment storage. The garage's size and design doesn't allow emergency vehicles to be parked side by side for prompt ingress and

egress, nor is adequate space available for a much-needed brush vehicle. In addition, the Town's garage doesn't have meeting and/or training space for the Department's volunteer personnel.

IX. WILDFIRE MITIGATION STRATEGY

Goal 1: Wildfire Prevention

Projects	Recommended Actions	Responsible Parties	Timeframe
Fire Prone Property Identification	Establish & coordinate a Neighborhood Fuels Reduction Demonstration Project on 20 private properties w/n both the Eau Claire Lakes and Potowatomi Estates subdivisions. Provide cost-share reimbursement incentives to willing landowners for creating defensible space. Investigate NFP grant sources.	Town of Barnes WDNR Bayfield County Barnes Fire Dep.	Within 2 years
Working Group	Form a Wildfire Mitigation working group between Towns, WDNR and USFS. The primary task of this group will be to coordinate and lead plan implementation efforts.	Towns, WDNR, USFS	Immediately following plan adoption
Education Programs for Children & Young Adults	Work with the Drummond School District (or others) to adapt the WDNR's "Take Smokey Camping!" Campaign as part of the annual fire education program.	Drummond VFD WDNR USFS	Spring 2006

Projects	Recommended Actions	Responsible Parties	Timeframe
Education Programs for Children & Young Adults	Work with the Drummond School District Administration to develop curriculum for annual fire education program. Integrate wildfire mitigation into "Fire Prevention Week." Approach Drummond schools Fire chiefs, WDNR and USFS work together to develop activity oriented wildfire hazard program for inclusion in "Fire Prevention Week" held during the second week of October.	WDNR, Towns, USFS	Initiate in 2006
	Engage Drummond School District in discussion about creating a Wildfire Hazard/Risk Assessment Project as part of the school's science curriculum. Pattern after the Stillwater, MN & MDNR Firewise success story.	WDNR USFS Towns Bayfield County School District	Curriculum in-place by Fall 2007
Education Programs for adults and landowners	Hold a "Forest Fire Prevention & Control Night" associated with the annual Drummond VFD picnic.	Drummond VFD USFS WDNR	July 2006
	Provide additional information on wildfire hazards along with the WDNR hazard assessment packets.	WDNR	2006
	Encourage Potawatomi Estates to become a recognized Firewise Community.	WDNR, Barnes FD	2008

Projects	Recommended Actions	Responsible Parties	Timeframe
Education Programs for adults and landowners	Continue to seek opportunities for presentation at adult group meetings.	Towns, WDNR, USFS	Spring 2006
	Host an annual "Firewise Clean-Up Week" held in the spring to encourage landowners to create defensible space around their homes. Specific demonstration projects may be designed and utilized to educate residents about longer-term investments they could make to increase fire safety.	Towns, WDNR, USFS, Bayfield County	2006
	Add CWPP and Firewise information to government and agency web sites, along with relevant information on escape routes and ongoing mitigation activities.	Towns	2006
Enforcement of rules & regulations	Provide a brief summary of the CWPP to all households (5-6 pages).	WDNR, USFS	Ongoing
	Continue aggressive enforcement of State and Federal forest fire laws.	WDNR	Ongoing
	Explore further restrictions on burning permits.	Towns	Ongoing
	As part of local subdivision review/approval process, new or proposed subdivisions should be reviewed by the responding Fire Departments for comment.	Towns, Bayfield County Zoning	

Projects	Recommended Actions	Responsible Parties	Timeframe
Cause investigation and determination	Incorporate wildfire mitigation subdivision guidelines/ ordinances into local comprehensive planning efforts. Consider the use of regulatory tools such as wildfire mitigation overlay districts, traditional zoning and Firewise subdivision ordinances. Utilize examples such as the Virginia Department of Forestry's model wildfire mitigation subdivision ordinance http://www.dof.virginia.gov/fire/subdivision guidelines.shtml	WDNR, USFS	Ongoing
	Continue aggressive origin and cause determination.	WDNR, USFS	Ongoing

Goal 2: Effective and Safe Suppression

Projects	Recommended Actions	Responsible Parties	Timeframe
Reduce hazardous fuels	Work with power line companies to improve power line right-of-way maintenance to include off right-of-way trees.	WDNR, USFS	Ongoing
	Work with the Town of Barnes to mitigate large fuel loading in the Town.	WDNR, USFS	Ongoing
	Focus future reconnaissance and hazardous fuels mitigation projects in high-risk areas as identified on the hazard assessment map.	USFS	Ongoing
	Implement the hazardous fuels reduction projects identified on pages 52-57.	USFS, Bayfield County	USFS – within 4 years County – within 2 years
Local equipment and training needs	Build or purchase adequate housing facility to satisfy the Town of Drummond's future needs. Investigate federal grants and assistance.	Town of Drummond	ASAP
	Procure mobile and handheld, digital-compatible, FM narrow band radios for each Fire Department. Investigate federal grants and assistance.	Towns	ASAP
	Seek funding for Bayfield County Forestry Dept. For the purchase of a ¾ ton or 1 ton 4x4 pickup and all necessary equipment for a Type 7 Engine to be used in wildfire suppression and hazardous fuels reduction projects.	Bayfield County Forestry Department	3 Years

Projects	Recommended Actions	Responsible Parties	Timeframe
Local equipment and training needs	Continue with current training regime with VFD's annually. Each winter offer a rotating schedule as needed of interagency developed courses such as Introduction to Wildland Firefighting, Zone Supervisor, simulator and mock fires, WDNR's shortened version of S 215 geared specifically at structure protection tactics and issues in Wisconsin as they relate to VFD's, etc.	WDNR, USFS	Ongoing
	Seek opportunities (both "hands on" and classroom) to involve BIA, Bayfield County agencies, and US Park Service in joint planning and training being held by WDNR and USFS.	WDNR	Ongoing
	Work more closely with Bayfield County (forestry, emergency management, sheriff's department and dispatch) to identify needs, issues, and concerns and target ways to address those. Promote more involvement with planning, training, etc	WDNR, USFS	Ongoing
	Explore the development of a Memorandum of Understanding between Bayfield County and the Forest Service to utilize county resources for wildland fire suppression.	USFS, Bayfield County	Within 2 years
	Conduct mock fire drill in the Town of Drummond	USFS, Town of Drummond	2007
Pre-suppression planning strategies	Identify, develop and maintain helispots.	USFS, WDNR	Begin immediately

Projects	Recommended Actions	Responsible Parties	Timeframe
Pre-suppression planning strategies	Identify a command post in the Town of Drummond.	USFS, WDNR	Begin immediately
Infrastructure improvement and maintenance	All new road construction should meet the standards to meet the American Association of State Highway and Transportation Officials (AASHTO) guidelines for turning radii, street dimensions and other standards relative to emergency vehicle access. Private roads, streets and driveways should also be required to meet NFPA 1141, Fire Protection for Planned Building Groups. These standards apply to condominiums, commercial buildings, and housing developments in rural areas.	Towns	Ongoing
	Conduct a comprehensive assessment of the road system to identify wildfire mitigation issues. Apply for grant funds.	WDNR, Towns, USFS	ASAP
	Identify opportunities for new additional water points and improvements to existing ones.	WDNR, Towns	Within 2 years
	Continue to improve identified permanent incident command post (emergency operations center) locations.	WDNR	Ongoing

Projects	Recommended Actions	Responsible Parties	Timeframe
Infrastructure improvement and maintenance	Apply to FEMA Hazard Mitigation Grant Program (HMGP), or other grant program to secure funding to develop an evacuation plan with identified escape routes and safety zones. Add signage with appropriate evacuation information along escape routes.	Towns, WDNR, USFS	Within 2 years
	Maintain and upgrade 18 miles of existing County Forest roads within the high hazard fuel areas of the Town of Barnes.	Bayfield County	Ongoing
	Develop new forest roads in areas of extensive hazardous fuels.	Bayfield County	2006

X. WILDFIRE MITIGATION PROGRAMS

There are numerous wildfire mitigation programs available to local units of government. The National Database of State and Local Wildfire Hazard Mitigation Programs (http://www.wildfireprograms.com/) is an excellent online resource of programs, studies and wildfire mitigation actions used in communities across the country. Below is a brief list of programs that local communities can use to reduce the risk and threat from wildfire in their communities. These programs focus primarily on the educational and regulatory aspects of mitigation, and do not in any way represent an exhaustive inventory. Many other possibilities exist through the use of administrative and incentive-based mitigation programs and tools.

HAZARD MITIGATION

In 2000, the National Fire Plan was established to help communities across the nation become better prepared for wildfire. Through this program, states are able to compete for grants to fund projects that meet the goals of the National Fire Plan. The WDNR Division of Forestry manages these funds through their Hazard Mitigation program. Projects fall under a few general categories: readiness, prevention, fuel breaks, and vegetation management. Communities with Community Wildfire Protection Plans are eligible to apply for these funds to conduct projects such as access improvement, fuels reduction, prescribed burning, and education to name a few. Smaller associations within the larger community are also eligible to apply for funds to carry out projects such as chipping days, defensible space creation, and fire-prone property assessments for example.

COMMUNITY PLANNING

Human development is increasingly encroaching on to the forested landscape. The same values which attract people to the forest can also pose threats to forest health and safety. As more and more people reside within the wildland environment, the threat of wildfire ignition and the potential for loss increase significantly. Wildfire, like other natural ecological processes, serves a role in the natural system. It only becomes problematic when people and development are exposed to this natural process.

A fundamental principal of community planning is to site future growth and development in areas which avoid natural hazards and to minimize risk to life and property. By establishing clear growth management goals, polices and implementation strategies within the context of wildfire hazard mitigation, communities can reduce the potential dangers from wildfire. Implementation strategies may range from advisory recommendations for construction and site design, to regulatory controls including zoning, land division & other ordinances, building codes, subdivision controls, design standards, road & signage standards and others.

Wisconsin's comprehensive planning legislation (Chapter 66.1001) provides a general framework for the development of a comprehensive plan. Communities which engage in

certain activities identified in the legislation (such as zoning) are required to base decisions on the contents of a plan which meets the Chapter 66 standards. Wildfire mitigation and risk reduction planning efforts can be incorporated into each of the nine required planning elements.

The CWPP can be used by communities as a tool in the development of a comprehensive plan. Hazard risk analysis and assessment information can also be used to assist in allocating future growth.

EDUCATION

Education is on one of the most effective wildfire prevention programs available. Community wildfire education and prevention activities directed at homeowners can help reduce fire risk in the wildland urban interface by encouraging and promoting Firewise landscaping, defensible space and outdoor fire safety. Education programs for children can also be very effective as these programs help prepare future homeowners for living with wildfire. Numerous educational materials and programs are available on the Internet and through the Wisconsin Department of Natural Resources. Additionally, the State of Wisconsin offers educational grant opportunities under the Forest Fire Protection Grant Program. This grant can be used to develop forest fire prevention materials. The materials could include information on planning and managing forests to ensure considerations are made for fire prevention in the community.

WILDFIRE EDUCATION RESOURCES ON THE INTERNET

Education Programs for Children

Discovery Channel: Fire Ecology Curriculum K-12 grades
http://school.discovery.com/lessonplans/programs/forestfires/

Learning, Experiences & Activities Program (LEAF)
http://www.uwsp.edu/cnr/leaf/fire/index.htm

Minnesota DNR Fire Prevention Education Curriculum -
http://www.dnr.state.mn.us/education/wildfire/curriculum.html

FEMA for Kids http://www.fema.gov/kids/wldfire.htm

Home Fire Escape Plan
http://www.ci.kent.wa.us/fireprevention/education/homefireescapeplansafety.pdf

Good Fire Bad Fire
http://www.ci.kent.wa.us/fireprevention/education/goodfiresbadfires.pdf

Fire Pals http://www.firepals.org/

Smokey the Bear Program http://www.smokeybear.com

Wildfire Resources for Adults

NOAA Fire Weather Information Center http://www.noaa.gov/fireweather/

NWCG Publications http://www.nwcg.gov/pms/pubs/pubs.htm

NPS & Fire Management http://www.nps.gov/fire/

National Interagency Fire Council http://www.nifc.gov/

Fire Information Toolbox http://www.fs.fed.us/r2/fio/general.htm

WDNR Forest Fire Program http://www.dnr.state.wi.us/org/land/forestry/fire/

Education Resources for Homeowners

Firewise
hyttp://www.firewise.org

National Interagency Fire Center
http://www.nifc.gov/preved/index.html

http://www.nifc.gov/preved/protecthome.html

Wisconsin Department of Natural Resources Forest Fire Program
http://www.dnr.state.wi.us/org/land/forestry/fire

American Red Cross Fire Wildfire Information
http://www.redcross.org/services/disaster/keepsafe/readywildfire.html

FEMA Publications
http://www.usfa.fema.gov/downloads/pdf/publications/wildfire.pdf

Firewise Around Your Home
www.dnr.state.wi.us/org/land/forestry/publications/FirewiseAroundYourHome.pdf

Creating Wildfire Defensible Zones
http://www.ext.colostate.edu/pubs/natres/06302.html

Fire-resistant Landscaping
http://www.ext.colostate.edu/pubs/natres/06303.html

REGULATORY PROGRAMS

Regulatory programs can be effective tools for reducing the threat of wildfire and the resulting damage to property as a result of fire. These programs utilize jurisdictional legal authority to develop and implement regulations to protect health, welfare and safety.

SUBDIVISION REGULATIONS

Subdivision regulations provide the procedures and standards for the division of land into smaller parcels while giving local government the authority to regulate the design and improvement of subdivisions, require dedications of public improvements, require payment of impact fees, and require compliance with the objectives and policies of a Comprehensive Plan. These regulations can also impose restrictions development aspects such as building design, emergency vehicle and water access, defensible space and road design. The Virginia Department of Forestry has developed a sample subdivision ordinance for communities at risk from the threat of wildfire (http://www.dof.virginia.gov/fire/subdivision-guidelines.shtml). The Great Lakes Forest Fire Compact (GLFFC) has also published a handbook for local officials on designing zoning and building standards. This information is available on the Internet at http://www.glffc.com/public/prevention/prevention_committee.html.

COVENANTS OR DEED RESTRICTIONS THAT REQUIRE WILDFIRE HAZARD MITIGATION

Deed restrictions and restrictive covenants are written agreements that restrict or limit property use or activities. These restrictions appear in the deed records, and are private agreements or contracts between a property buyer and a property seller. Restrictions may include requirements for residents to maintain appropriate fuels reductions measures on their property.

TRADITIONAL ZONING

Traditional zoning is the most widely applied tool for regulating land development in Wisconsin. The local zoning ordinance can include requirements for setbacks, landscaping, and site access, to name a few, that can assist in reducing fire hazard.

WILDFIRE HAZARD OVERLAY DISTRICTS

Overlay, or “floating districts” are mapped areas with additional requirements beyond those of the underlying zoning district. Ordinance text impose specific requirements for building setbacks, design or other wildfire hazard mitigation standards.

COMMUNITY PROTECTION ZONES (CPZ)

Requirements for community protection or fuel management zones around high-risk communities. This tool can minimize the wildfire threat by providing appropriate hazardous fuels reduction measures within a zone surrounding WUI communities.

BUILDING AND DEVELOPMENT PERFORMANCE STANDARDS

Performance standards are zoning controls that regulate the effects or impacts of a proposed development or activity on the community, rather than separating uses into various zones. Standards may require the maintenance of defensible space and other measures that reduce or mitigate wildfire hazards before development approval.

DEVELOPMENT AGREEMENTS

Development Agreements are contractual agreements voluntarily entered into by a municipality and a developer to vest development rights for a specific development project. Through the Development Agreement, the municipality may require the reservation or dedication of land for public purposes and may include conditions and restrictions for subsequent discretionary actions. For example, a municipality may require dedication of emergency access easements, dedication of land for fire fighting facilities, on-going maintenance of those facilities, and subsequent review of fire safety plans before later phases of development can begin.

FIREWISE COMMUNITIES PROGRAM

The National Firewise Communities Program is a national multi-agency program which promotes partnerships between community leaders, homeowners, planners, developers and others to promote wildfire preparedness- before a fire starts. The Firewise approach emphasizes local community responsibility for designing and maintaining safe communities through land use planning, mitigation activities, collective decision-making and effective response.

Firewise Communities/USA is a project of the National Wildfire Coordinating Group's Wildland/Urban Interface Working Team and is the latest component of the Firewise program. According to the NWCG, the Firewise communities' concept "provides citizens with the knowledge necessary to maintain an acceptable level of fire readiness, while ensuring firefighters that they can use equipment more efficiently during a wildland fire emergency."

Becoming a Firewise Community involves a 7 step process.
Step 1: Contact Firewise
Step 2: Site visit with local Firewise Communities USA representatives
Step 3: Community representatives create a multi-discipline Firewise board/committee
Step 4: Assessment & evaluation
Step 5: Create plan – Create agreed-upon, area-specific solutions to its WUI fire issues
Step 6: Implement solutions - Local solutions are implemented following a schedule designed by the local Firewise board and WUI specialist.
Step 7: Apply for recognition

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NOTICE OF SUPPORT AND APPROVAL OF THE BARNES-DRUMMOND COMMUNITY WILDFIRE PROTECTION PLAN

Through involvement, participation and consultation in the development of the Barnes-Drummond Community Wildfire Protection Plan, representatives of the following agencies hereby agree to the final plan content.

LOCAL GOVERNMENT OFFICIALS

12/20/05

Richard Collyard — Date
Chairman
Town of Barnes

12-14-05

Brian Miller — Date
Chairman
Town of Drummond

LOCAL FIRE DEPARTMENTS

12-20-05

Tom Renz — Date
Fire Chief
Town of Barnes Fire Department

12/14/05

Mark Jerome — Date
Fire Chief
Drummond Fire Department

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

12/14/05

Tom Salzmann — Date
Lake Superior Area Forester

Wisconsin Department of Natural Resources

US FOREST SERVICE, CHEQUAMEGON-NICOLET NATIONAL FOREST

Chris Worth 12/14/05

Chris Worth Date
District Ranger
Washburn Ranger District
Chequamegon-Nicolet National Forest

BAYFIELD COUNTY FOREST

Paul Lundberg 12/13/05

Paul Lundberg Date
Bayfield County Forest Administrator

XI. APPENDIX

WILDFIRE GLOSSARY

Aerial fuels All live and dead vegetation in the forest canopy or above surface fuels, including tree branches, twigs and cones, snags, moss, and high brush.

Arson fire A wildfire willfully ignited by anyone to burn, or spread to, vegetation or property without consent of the owner or his/her agent.

At-risk community a place where humans and their development meet or intermix with wildland fuel.

Blowdown (windthrow) Uprooting by the wind. Also refers to a tree or trees so uprooted.

Brush fire A fire burning in vegetation that is predominantly shrubs, brush, and scrub growth.

Canopy The stratum containing the crowns of the tallest vegetation present (living or dead), usually above 20 feet.

Crown fire A fire that advances from top to top of trees or shrubs more or less independent of a surface fire.

Debris burning fire In fire suppression terminology, a fire spreading from any fire originally ignited to clear land or burn rubbish, garbage, crop stubble, or meadows (excluding incendiary fires).

Defensible space An area, typically a width of 30 feet or more, between an improved property and a potential wildfire where the combustibles have been removed or modified.

Engine Transports miscellaneous fire suppression equipment and is most commonly used to fight fire by spraying water.

Escape route away from dangerous areas on a fire; should be preplanned.

Evacuation The temporary movement of people and their possessions from locations threatened by wildfire.

Exposure (1) Property that may be endangered by a fire burning in another structure or by a wildfire. (2) Direction in which a slope faces, usually with respect to cardinal directions. (3) The general surroundings of a site with special reference to its openness to winds.

Fine fuels Fast-drying dead fuels, generally characterized by a comparatively high surface area-to volume ratio, which are less than 1/4-inch in diameter. These fuels (grass, leaves, needles, etc.) ignite readily and are consumed rapidly by fire when dry.

Fire behavior The manner in which a fire reacts to the influences of fuel, weather, and topography.

Fire department Any regularly organized fire department, fire protection district or fire company regularly charged with the responsibility of providing fire protection to the jurisdiction.

Fire hazard A fuel complex, defined by volume, type condition, arrangement, and location, that determines the degree of ease of ignition and of resistance to control.

Fire hydrant A valved connection on a piped water supply system having one or more outlets that is used to supply hose and fire department engines with water.

Fire prevention Activities, including education, engineering, enforcement and administration that are directed at reducing the number of wildfires, the costs of suppression, and fire-caused damage to resources and property.

Fire proofing Removing or treating fuel with fire retardant to reduce the danger of fires igniting or spreading (e.g., fire-proofing roadsides, campsites, structural timber). Protection is relative, not absolute.

Fire protection The actions taken to limit the adverse environmental, social, political and economical effects of fire.

Fire regime Periodicity and pattern of naturally-occurring fires in a particular area or vegetative type, described in terms of frequency, biological severity, and area extent.

Fire resistant tree A species with compact, resin-free, thick corky bark and less flammable foliage that has a relatively lower probability of being killed or scarred by a fire than a fire sensitive tree.

Fire retardant Any substance except plain water that by chemical or physical action reduces flammability of fuels or slows their rate of combustion.

Fire season Period(s) of the year during which wildland fires are likely to occur, spread, and affect resources values sufficient to warrant organized fire management activities.

Fire suppressant Any agent used to extinguish the flaming and glowing phases of combustion by direct application to the burning fuel.

Fire swatter A fire tool that consists of a thick, flat piece of rubber on a long handle used to drag over or smother out flames.

Fire triangle Instructional aid in which the sides of a triangle are used to represent the three factors (oxygen, heat, fuel) necessary for combustion and flame production; removal of any of the three factors causes flame production to cease.

Firewise construction The use of materials and systems in the design and construction of a building or structure to safeguard against the spread of fire within a building or structure and the spread of fire to or from buildings or structures to the wildland/urban interface area.

Firewise landscaping Vegetative management that removes flammable fuels from around a structure to reduce exposure to radiant heat. The flammable fuels may be replaced with green lawn, gardens, certain individually spaced green, ornamental shrubs, individually spaced and pruned trees, decorative stone or other non-flammable or flame-resistant materials.

Flammability The relative ease with which fuels ignite and burn regardless of the quantity of the fuels.

Foam The aerated solution created by forcing air into, or entraining air in water containing a foam concentrate by means of suitably designed equipment or by cascading it through the air at a high velocity. Foam reduces combustion by cooling, moistening and excluding oxygen.

Forest fire Uncontrolled, wild, or running fires occurring on forest, marsh, field, cutover, or other lands. Other more common terms for a forest fire include grass fire, brush fire, and wildfire.

Fuel condition Relative flammability of fuel as determined by fuel type and environmental conditions.

Fuel loading The volume of fuel in a given area generally expressed in tons per acre.

Fuel modification Any manipulation or removal of fuels to reduce the likelihood of ignition or the resistance to fire control.

Fuels All combustible material within the wildland/urban interface or intermix, including vegetation and structures.

Fuelbreak An area, strategically located for fighting anticipated fires, where the native vegetation has been modified or replaced so that fires burning into it can be more easily controlled. Fuel breaks divide fire-prone areas into smaller areas for easier fire control and to provide access for firefighting.

Ground fuels Combustible materials lying beneath the surface including roots, buried logs, deep duff and other organic matter.

Hazard The degree of flammability of the fuels once a fire starts. This includes the fuel (type, arrangement, volume and condition), topography and weather.

Hazard Reduction Manipulation, including combustion, or removal of hazardous fuels to reduce the likelihood of ignition and/or to lessen potential damage and resistance to control

Human-caused fire Any fire caused directly or indirectly by person(s).

Interface See Wildland-urban interface.

Intermix Interspersing of developed land with wildland.

Ladder fuels Fuels that provide vertical continuity allowing fire to carry from surface fuels into the crowns of trees or shrubs with relative ease.

Mitigation Action that moderates the severity of a fire hazard or risk.

Mutual Aid Agreement An agreement in place between fire protection agencies that allows for either fire protection agency to help the other in a wildfire event.

National Fire Danger Rating System (NFDRS) A uniform fire danger rating system that focuses on the environmental factors that control the moisture content of fuels.

Natural barrier Any area where lack of flammable material obstructs the spread of wildfires.

Noncombustible A material that, in the form in which it is used and under the conditions anticipated, will not aid combustion or add appreciable heat to an ambient fire.

Open burning Uncontrolled burning of wastes in the open or in an open dump.

Overstory That portion of the trees in a forest which forms the upper or uppermost layer.

Peak fire season That period of the fire season during which fires are expected to ignite most readily, to burn with greater than average intensity, and to create damages at an unacceptable level.

Planning unit a sub-unit of the larger project area. Consolidated tracts of land which exhibit similar wildfire concerns.

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 planned fire treatment and resource management objectives.

Prescribed fire A fire burning within prescription. This fire may result from either planned or unplanned ignitions.

Project area The geographic extent of the CWPP project

Protection area That area for which a particular fire protection organization has the primary responsibility for attacking an uncontrolled fire and for directing the suppression action. Such responsibility may develop through law, contract, or personal interest of the fire protection agent. Several agencies or entities may have some basic responsibilities without being known as the fire organization having direct protection responsibility.

Pumper see “Engine”

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

Retardant A substance or chemical agent which reduces the flammability of combustibles.

Risk The chance of a fire starting from any cause.

Rural Fire District (RFD) An organization established to provide fire protection to a designated geographic area outside of areas under municipal fire protection. Usually has some taxing authority and officials may be appointed or elected.

Slope The variation of terrain from the horizontal; the number of feet rise or fall per 100 feet measured horizontally, expressed as a percentage.

Structure fire Fire originating in and burning any part of all of any building, shelter, or other structure.

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

Surface fuels Combustible materials lying directly above the surface such as logs, stumps, logging slash, leaves, pine needles, grass and other understory vegetation.

Tanker see “Tender”

Tender A truck equipped with a water tank, used to assist in providing water to fire engines, or it can be used by itself, to fight a fire.

Topography Physical features of the landscape, surface irregularity.

Tree crown The primary and secondary branches growing out from the main stem, together with twigs and foliage.

Uncontrolled fire Any fire which threatens to destroy life, property, or natural resources, and (a) is not burning within the confines of firebreaks, or (b) is burning with such intensity that it could not be readily extinguished with ordinary, commonly available tools.

Understory Low-growing vegetation (herbaceous, brush or reproduction) growing under a stand of trees. Also, that portion of trees in a forest stand below the overstory.

Volunteer Fire Department (VFD) A fire department of which some or all members are unpaid.

Water supply A source of water for firefighting activities.

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 wildlands, regardless of ignition source, damages or benefits.

Wildland/Urban Interface Any area where wildland fuels threaten to ignite combustible homes and structures.

GLOSSARY OF ACRONYMS USED IN THIS PLAN

ATV All-terrain vehicle
BFD Barnes Fire Department
BPU Biophysical Unit
CNNF Chequamegon-Niclot National Forest
CWPP Community Wildfire Protection Plan
DFD Drummond Fire Department
DIVS Division/Group Supervisor
FM Fuel Model
FR Fire Regime
FRU Fire Response Unit
GIS Geographic Information System
HFI Healthy Forests Initiative
HFRA Healthy Forests Restoration Act
ISO International Standards Organization
LTA Land Type Association
LOP Level of Protection
LS Lake Superior Basin
MAA Mutual Aid Agreement
MR Mississippi River Basin
NASF National Association of State Foresters
NFPA National Fire Protection Association
NWCG National Wildfire Coordinating Group
NWRPC Northwest Regional Planning Commission
RNA Research Natural Area
SMA Special Management Area
SPNMA Semi-Primitive Non-Motorized Area
TIGER Topologically Integrated Geographic Encoding and Referencing
USDA United States Department of Agriculture
WDNR Wisconsin Department of Natural Resources
WISCLAND Wisconsin Initiative for Statewide Cooperation on Landscape Analysis and Data
WUI Wildland-Urban Interface

MEETING AGENDAS AND MINUTES

AGENDA

BARNES-DRUMMOND CWPP MEETING I

Thursday, June 9th
Barnes Town Hall - Barnes, Wisconsin
7 p.m.

1. Introductions
2. CWPP Project Summary
3. Overview of Planning Process / Roles/ Responsibilities/Timeline/Decision-making process
4. Project Needs / **Establish Community Base Map** (Task 1)
5. Identify Action/Discussion Items for Next Meeting
6. Set Next Meeting Date
7. Adjourn

It is possible a quorum of supervisors from each of the above referenced units of government may be present.

Individuals wishing to direct written comments may do so to the attention of Jason Laumann, Northwest Regional Planning Commission, 1400 S. River Street, Spooner WI 54801 or by email to jlaumann@nwrpc.com

Meeting Minutes
June 9th, 2005
Barnes-Drummond CWPP Meeting 1
Attendees: Jay Gallagher(WDNR), Al Tatzel (WDNR), Chris Worth (USFS),Del Jerome (Town of Drummond), Dick Collyard (Town of Barnes), Dixie Chermack (Town of Barnes), Don Luebbe (WDNR), Jack Meinke (Town of Barnes), Jan Victorson (Bayfield County Emergency Management), Jason Laumann (NWRPC),Jerry Jaskowiak (USFS), Ken Marshall (NWRPC), Kirby Dernovsek (Bayfield County Forestry), Mark Jerome (Town of Drummond FD), Neil Paulson (Town of Drummond), Tom Salzmann (WDNR)

Meeting called to order at 7:00 PM.

Don Lubbe (WDNR) provided a slide presentation on the recent Cottonville Fire.

Committee introductions were followed by an overview of the planning process by NWRPC. The Committee discussed individual agency roles and responsibilities in the planning process and formulated a strategy for decision-making. Resource management agencies will provide an advisory role to the local units of government throughout the planning process. Technical staff will also assist NWRPC staff in data inventory, collection, analysis and the development of specific aspects of the plan. Local governmental units will establish priorities and assist in the development of plan products, analysis and other planning aspects. NWRPC will serve as the project facilitator and compile the plan narrative.

The Committee determined that a regularly scheduled monthly meeting format would serve the planning process, and future dates were scheduled accordingly. The Committee will meet on the second Thursday of every month throughout the planning period, which is to conclude at the end of the calendar year.

The Committee determined the most practical approach to decision-making was through the creation of an “executive committee” to be comprised of members from resource management agencies and local government. Individuals selected to serve on this committee include: Tom Salzmann, Jack Meinke, Del Jerome, Mark Jerome, Tom Renz, Neil Paulson, Kirby Dernovsek and Chris Worth. Decisions will be made using a voting procedure, with majority rule.

NWRPC discussed the project needs and requirements of the participating agencies and local units of government. A community base map was provided for comment and discussion. It was determined that NWRPC must coordinate with the respective partners to obtain required data. NWRPC is to develop a data inventory list and contact appropriate agencies to obtain data and determine applicability of CWPP GIS planning model.

NWRPC will forward the following materials to the Committee prior to the next meeting: agenda, revised timeline (7 month), committee list, and minutes.

The next meeting date was scheduled for Thursday, July 14th at 7:00PM in Drummond. Location TBD.

Meeting adjourned at 8:41 PM

Minutes compiled by Jason Laumann (NWRPC)

AGENDA

BARNES-DRUMMOND CWPP MEETING II

Thursday, July 14th
Drummond Public Library - Drummond, Wisconsin
7 p.m.

1. Approve Agenda
2. Approve Meeting Minutes
3. Establish Plan Goals and Objectives
4. Establish Community Planning Units
5. Forest Conditions & Wildfire History
6. Identify Action/Discussion Items for Next Meeting
7. Set Next Meeting Date
8. Adjourn

It is possible a quorum of supervisors from each of the above referenced units of government may be present.

Individuals wishing to direct written comments may do so to the attention of Jason Laumann, Northwest Regional Planning Commission, 1400 S. River Street, Spooner WI 54801 or by email to jlaumann@nwrpc.com

Meeting Minutes
July 14th, 2005
Barnes-Drummond CWPP Meeting 2

Attendees: Jay Gallagher(WDNR), Del Jerome (Town of Drummond), Jack Meinke (Town of Barnes), Jason Laumann (NWRPC),Jerry Jaskowiak (USFS), Ken Marshall (NWRPC), Kirby Dernovsek (Bayfield County Forestry), Mark Jerome (Town of Drummond FD), Neil Paulson (Town of Drummond), Jennifer Maziasz (USFS), Cheri Ford (USFS)

Absent: Al Tatzel (WDNR), Chris Worth (USFS), Dick Collyard (Town of Barnes), Dixie Chermack (Town of Barnes), Don Luebbe (WDNR), Jan Victorson (Bayfield County Emergency Management), Tom Salzmann (WDNR), Tom Renz (Town of Barnes)

Meeting called to order at 7:00 PM.

Committee introductions were followed by an approval of June meeting minutes.

Community Planning units

The Committee discussed forest conditions, fuel models & wildfire history. Jerry Jaskowiak of the USFS spoke about forest conditions and fuel types within the Drummond area, which lead into a discussion about identifying community planning units. These areas would potentially have specialized or "targeted" action items within the plan's overall broad implementation strategy.

It was determined that community planning units would be determined by factors such as housing unit density and fuel types present. Several maps were presented for discussion and target areas identified. The committee identified a total of 8 planning units; 5 within the Town of Drummond and 3 within the Town of Barnes. The planning units in Drummond were identified as: the unincorporated community of Drummond, Pigeon lake, Lake Owen, West side of HWY 63 South of Drummond including lands within private ownership, and the FM-5 (brush-hardwoods) North of the unincorporated community of Drummond. Planning units identified in the Town of Barnes include: Potawatami Estates area, Eau Claire chain north (north end of Eau Claire Lake to Kelly Lake), and Eau Claire chain south. This chain is split between 2 planning units due to geographic separation in fuel types.

Goals and Objectives

The committee discussed plan goals and objectives. Two broad goal statements crafted include:
"Wildfire Prevention" and "Effective and Safe Suppression." A general plan mission statement was also formulated to read "Create a CWPP through collaboration between

governmental bodies, the public, the Towns of Barnes and Drummond, the US Forest Services, Wisconsin Department of Natural Resources, and Bayfield County.

Committee members are to consider goals and objectives prior to the August meeting and come prepared to finalize at the next meeting.

The next meeting date was scheduled for Thursday, August 11th at 7:00PM in Barnes town hall.

Meeting adjourned at 9:00 PM

Minutes compiled by Ken Marshall (NWRPC)

AGENDA

BARNES-DRUMMOND CWPP MEETING III

Thursday, August 11th
Barnes Town Hall, Barnes, Wisconsin
7 p.m.

1. Approve Agenda
2. Approve Meeting Minutes
3. Finalize Goals and Objectives
4. Approve Community Planning Units Map
5. Public Lands and Fire Management
6. Fire Suppression Resources and Responsibilities
7. Identify Action/Discussion Items for Next Meeting
8. Set Next Meeting Date
9. Adjourn

It is possible a quorum of supervisors from each of the above referenced units of government may be present.

Individuals wishing to direct written comments may do so to the attention of Jason Laumann, Northwest Regional Planning Commission, 1400 S. River Street, Spooner WI 54801 or by email to jlaumann@nwrpc.com

Meeting Minutes
August 11th
Barnes-Drummond CWPP Meeting 3

Attendees: Jay Gallagher(WDNR), Al Tatzel (WDNR), Don Luebbe (WDNR), Del Jerome (Town of Drummond), Jack Meinke (Town of Barnes), Dixie Chermack (Town of Barnes), Jason Laumann (NWRPC), Ken Marshall (NWRPC), Kirby Dernovsek (Bayfield County Forestry), Neil Paulson (Town of Drummond), Jennifer Maziasz (USFS), Jim Grant (USFS), Mark Jerome (Town of Drummond), Jerry Jaskowiak (USFS)

Absent: Dick Collyard (Town of Barnes), Jan Victorson (Bayfield County Emergency Management), Tom Salzmann (WDNR), Tom Renz (Town of Barnes)

Meeting called to order at 7:00 PM.

Committee approved 8/11 agenda and 7/14 meeting minutes

The Committee welcomed Mr. Jim Grant, Fire Management Officer from the Chequamegon-Nicolet National Forest.

Refining Community Planning Units

The Committee re-examined the issue of community planning units. Planning units defined at the 7/14 meeting were presented to the committee by NWRPC. Jason Laumann explained that the general boundaries defined on 7/14 corresponded well the Wildland Urban Interface (WUI) boundaries mapped by the USFS and Department of Forest Ecology and Management, University of Wisconsin-Madison. Laumann explained that a benefit of this correlation was that the planning unit boundaries would be tied to US Census block data, which would allow specific tabular data calculations for each planning unit (population, housing units, etc.)

The Committee discussed areas which were not defined as planning units, but which had high housing density. Don Lubbe pointed to a cluster of residential development along CTH N near the Barnes-Drummond Town line as an example. Jim Grant explained that the National standards defining WUI are 1 structure per 40 acres, and that it would be in the communities' interest to define all areas meeting the minimum WUI standard. Laumann explained that a revised WUI model could be created once parcel data was obtained for the planning unit. Dixie Chermack explained that Barnes would have information relative to the location of structures, developed as part of the Town Comprehensive Planning process. NWRPC will obtain the relevant data, create an interpolated structure model and add areas which meet the minimum standards to the WUI map.

The Committee also discussed the planning unit which defines the hardwood area north of the community of Drummond. While not WUI, this area includes the Rainbow Lake

Wilderness Area which would have different wildfire management options than the surrounding non-wilderness lands. Del Jerome indicated that there was a potential for closure of Reynard Lake Road on the southern edge of the RLWA, and this could have serious implications for access the the area in the event of a wildfire.

Neil Paulson suggested that the planning unit boundary be revised to show the wilderness area boundary only.

NWRPC will present the modified WUI model and planning unit boundaries at the September 8, 2005 meeting.

Goals and Objectives

The committee continued the development of plan goals and objectives. The working list is summarized as follows:

Goal 1: Wildfire prevention

Objective A: Reduce hazardous fuels
Objective B: Fire prone property identification
Objective C: Public education
Objective D: Enforcement of rules and regulations
Objective E: Cause investigation and determination

Goal 2: Effective and safe suppression

Objective A: Identify local equipment and training needs
Objective B: Pre-suppression planning strategies
Objective C: Infrastructure improvement and maintenance

Fire Suppression Resources and Responsibilities

The Committee discussed agenda item 6, Fire Suppression Resources and Responsibilities. J. Laumann suggested that each resource management agency and the fire departments from both Town's compile a list of information for discussion on 9/08 and inclusion in the draft plan narrative. This information is to include, service area boundaries, agency resources (equipment, staff and cooperative agreements (mutual aid agreements).

The next meeting date was scheduled for Thursday, September 8th at 7:00PM at the Drummond Public Library.

Meeting adjourned at 9:09 PM

Minutes compiled by Jason K. Laumann

AGENDA

BARNES-DRUMMOND CWPP MEETING IV

Thursday, September 8th
Drummond Public Library - Drummond, Wisconsin
7 p.m.

1. Approve Agenda

2. Approve Meeting Minutes

3. Finalize Community Planning Units

4. Wildfire Hazard Model

   a) Fuel Hazards
   b) Risk of Wildfire Occurrence
   c) Essential Infrastructure at Risk
   d) Other Community Values at Risk
   e) Local Preparedness

5. Identify Action/Discussion Items for Next Meeting

6. Set Next Meeting Date

7. Adjourn

It is possible a quorum of supervisors from each of the above referenced units of government may be present.

Individuals wishing to direct written comments may do so to the attention of Jason Laumann, Northwest Regional Planning Commission, 1400 S. River Street, Spooner WI 54801 or by email to jlaumann@nwrpc.com

Meeting Minutes
September 8th
Barnes-Drummond CWPP Meeting 4

Attendees: Jay Gallagher(WDNR), Al Tatzel (WDNR), Del Jerome (Town of Drummond), Jack Meinke (Town of Barnes), Dixie Chermack (Town of Barnes), Jason Laumann (NWRPC), Ken Marshall (NWRPC), Kirby Dernovsek (Bayfield County Forestry), Jennifer Maziasz (USFS), Cheri Ford (USFS), Tom Salzmann (WDNR), Mark Jerome (Town of Drummond)

Absent: Dick Collyard (Town of Barnes), Jan Victorson (Bayfield County Emergency Management), Tom Renz (Town of Barnes) Don Luebbe (WDNR) Neil Paulson (Town of Drummond), Jerry Jaskowiak (USFS),

Meeting called to order at 7:00 PM.

Committee approved 9/08 agenda and 8/11 meeting minutes

Finalizing Community Planning units

The Committee finalized community planning unit boundaries. There are a total of 9 CPA's within the overall planning unit. NWRPC presented a map depicting the WUI, which was created using digital (GIS) data. The map shows areas of housing unit density equivalent to or exceeding a density of 1 unit per 40 acres. The WUI model and planning unit boundary maps generally correspond.

Minor modifications were made to several Planning Units. Changes included:

1) Expansion of the Private land area adjoining STH 63 to include additional development to the northwest. Change was based on HU density and similarity of fuel types.

2) Modification of the Lake Owen Planning Unit include "developed areas" adjoining the lake and non-fed land to the south.

3) Expansion of the Pigeon Lake Planning Unit to include the rural "subdivision" to the west along CTH N.

4) The addition of the Eight Mile Lake Planning Unit in Barnes. This area includes lakefront development within a high risk fuel area.

Wildfire Risk Model

NWRPC presented a basic outline of the GIS based community wildfire risk model created for the BD CWPP. The model includes 5 phases - Fuel Hazards, Risk of Wildfire Occurrence, Essential Infrastructure at Risk, Other Community Values at Risk,

and Local Preparedness. NWRPC explained that each phase of the model was to run independently, with the outputs placed into a final model.

NWRPC presented a base model which has several inputs in each phase. The committee determined whether or not the selected inputs were appropriate for use in this model, and the weighting value that should be assigned to the input. The committee discussed all 5 modeling phases, with the following results:

5A -Fuel Hazards

	Percent Influence
Fuel Model	100

5B -Risk of Wildfire Occurrence

	Percent Influence
Trails	5
Roads	20
Homes	75

5C -Essential Infrastructure at Risk

	Percent Influence
Subdivisions	10
Power Lines	5
Water Intakes	5
Substations	5
Sensitive Facilities	10
Businesses	10
Homes	40
Communications Structures	5
Escape Routes	10

5D-Other Community Values at Risk

	Percent Influence
Recreation/Scenic Areas	33
Significant Landscapes	33
Open Space/Public Land	33

5E- Local Preparedness and Firefighting Capability

	Percent Influence
Fire Station Response Times	25
Dead End Roads	25
Water Sources	25
Roads	25

NWRPC will add the specified inputs and run the model prior to the Oct CWPP meeting. At that time the composite maps will be presented to the Committee for evaluation and discussion. NWRPC will use a laptop and projector to interactively display outputs and make changes “on-the-fly” if the model can be run in a timely manner. Otherwise, output maps will be created and presented. NWRPC requested that Committee members begin to work on implementation strategy and ideas prior to the next meeting. Time is becoming very critical and may necessitate an additional meeting or two in October and November to complete an implementation plan in order to complete the overall plan by the end of the year.

The next meeting date was scheduled for Thursday, October 13, at the Barnes Town Hall.

Meeting adjourned at 9:10 PM

Minutes compiled by Jason K. Laumann

AGENDA

BARNES-DRUMMOND CWPP MEETING V

Thursday, October 13th 2005
Barnes Town Hall, Barnes, Wisconsin
6:30 p.m.

1. Approve Agenda
2. Approve Meeting Minutes
3. Risk Assessment GIS project – Interactive Exercise
4. Hazardous Fuels Reductions Projects – Identify and Prioritize
5. Mitigation Action Plan
6. Distribute Draft 1 Narrative for Review
7. Identify Action/Discussion Items for Next Meeting
8. Set Next Meeting Date
9. Adjourn

It is possible a quorum of supervisors from each of the above referenced units of government may be present.

Individuals wishing to direct written comments may do so to the attention of Jason Laumann, Northwest Regional Planning Commission, 1400 S. River Street, Spooner WI 54801 or by email to jlaumann@nwrpc.com

Meeting Minutes
October 13th, 2005
Barnes-Drummond CWPP Meeting 5

Attendees: Al Tatzel (WDNR), Cheri Ford (USFS), Jack Meinke (Town of Barnes), Jason Laumann (NWRPC), Don Luebbe (WDNR), Ken Marshall (NWRPC), Kirby Dernovsek (Bayfield County Forestry), Jennifer Maziasz (USFS), Tom Salzmann (WDNR),Jerry Jaskowiak (USFS), Jan Victorson (Bayfield County Emergency Management)

Absent: Dick Collyard (Town of Barnes), Dixie Chermack (Town of Barnes), Tom Renz (Town of Barnes), Neil Paulson (Town of Drummond), Jay Gallagher (WDNR), Mark Jerome (Town of Drummond FD), Del Jerome (Town of Drummond)

Meeting called to order at 6:34 PM.

Committee approved 10/13 agenda and 9/08 meeting minutes

GIS Risk Assessment

Jason Laumann and Ken Marshall from NWRPC presented the CWPP risk assessment GIS model. The model was created using ArcGIS and ArcView software using parameters determined by the CWPP Planning Committee at the September 8th meeting. A weighted overlay analysis was used to define the percent influence for each input theme in all five categories.

The outputs of each of the five phases of the model were shown to the Committee for comment. Laumann suggested the committee reconsider the usage of historical fire occurrence data, which was omitted from the previous model. This input was commonly used in other CWPP's as a means to quantify risk.

The Committee discussed the merits of using this information in conjunction with the previously selected inputs. It was determined that the final RISK model would contain residential development, roads, trails and fire history data. The weighting values to be assigned include: residential development 40%, roads 20 %, historical fire occurrences 35%, and trails 5%.

The Committee felt the analysis parameters were appropriate for the FUEL HAZARD and INFRASTRUCTURE AT RISK models. Final outputs for each assessment were shown to the Committee.

The Committee was shown the analysis output for the OTHER VALUES phase of the assessment. Al Tatzel suggested that community waterfront is a local value which is not current considered in the model. The committee discussed this issue at length and determined that inclusion of a theme depicting shorelands would be an appropriate part of the local values assessment. The committee determined that a 100' buffer

surrounding lake frontage and streams would be sufficient. Laumann advised that NWRPC would use the WDNR 1:24K hydro data to obtain the information, and incorporate it into the model. Inclusion of this parameter alters the final weighting for the OTHER VALUES category. Open space, public recreation areas, significant landscapes and shorelands were each assigned a weighting value of 25%.

The Committee was shown the output for the LOCAL PREPAREDNESS AND FIREFIGHTING CAPABILITY assessment. Laumann explained that the response time theme was actually the combination of two separate themes, distance from fire stations and distance from roadways. Insufficient data was available to perform a 'network analysis' to determine actual response time (minutes). The committee was asked if using the distance themes was a sensible alternative to a network analysis and if the outputs generated by the usage of these data were accurate. The Committee agreed that this information was appropriate and would serve as an adequate surrogate to "fire station response times."

FINAL WEIGHTING VALUES

5A -Fuel Hazards	
	Percent Influence
Fuel Model	100
5B -Risk of Wildfire Occurrence	
	Percent Influence
Trails	5
Roads	20
Historical Fire Occurrences	35
Residential Development	40
5C -Essential Infrastructure at Risk	
	Percent Influence
Subdivisions	10
Power Lines	5
Water Intakes	5
Substations	5
Sensitive Facilities	10
Businesses	10
Homes	40
Communications Structures	5
Escape Routes	10
5D-Other Community Values at Risk	
	Percent Influence
Recreation/Scenic Areas	25
Significant Landscapes	25
Open Space/Public Land	25

Shoreland Areas	25
5E- Local Preparedness and Firefighting Capability	
	Percent Influence
Distance from Fire Stations	25
Dead End Roads	25
Distance from Water Sources	25
Access	25
OVERALL ANALYSIS	
5A -Fuel Hazards	**30%**
5B -Risk of Wildfire Occurrence	**30%**
5C -Essential Infrastructure at Risk	**20%**
5D-Other Community Values at Risk	**10%**
5E –Local Preparedness & FF Capability	**10%**

NWRPC led the Committee through an interactive exercise to determine the OVERALL ANALYSIS weighting values. The Committee selected alternative values to each of the five assessment phases, which were run through the model. The outputs were shown on-screen. It was determined that an error exists within the fuel hazard composite data set. This error was producing high values in the final output within unexpected areas. Ken Marshall will work with Bayfield County forestry to determine the nature of the error and correct the data values.

Hazardous Fuels Reduction Projects

Jason Laumann explained that HFRA requires that a CWPP identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more at-risk communities and essential infrastructure. The Committee discussed this issue to determine the best approach. It will be the responsibility of each individual agency to identify and prioritize projects on lands which their agency manages. Laumann suggested that this process should correlate with the risk assessment project to identify fuels reduction measures for areas which have been rated as high. The areas which were previously identified as “community Planning Units” are the local “at-risk” communities.

It was determined that each agency would take action to identify and prioritize projects. The group would then reconvene to discuss how these would be incorporated into the final plan. The committee set a meeting date for Tuesday, October 25th to discuss this issue.

Distribution of Narrative

NWRPC distributed a copy of the draft narrative to the Committee and suggested that individuals review the material and prepare comments and suggestions for the October 25 and November 10th meetings.

Mitigation Action Plan

NWRPC identified sections of the draft plan related to mitigation action. This component will identify mitigation actions relative to each of the community planning units and general "overall" community-wide mitigation actions. This component will be discussed in detail at the November 10th meeting in Drummond.

The next meeting date was scheduled for **6:30 PM Tuesday, October 25th** at the Barnes Town Hall to discuss hazardous fuels reduction projects.

Meeting adjourned at 9:09 PM

Minutes compiled by Jason K. Laumann

AGENDA

BARNES-DRUMMOND CWPP MEETING TO DISCUSS HAZARDOUS FUELS REDUCTION PROJECTS

Tuesday, October 25th 2005
Barnes Town Hall, Barnes, Wisconsin
6:30 p.m.

1. HFRA Requirements & How have others handled this issue
2. Hazardous Fuels Reductions Projects – Identify and Prioritize
3. Other issues relative to mitigation
4. Set Next Meeting Date
5. Adjourn

It is possible a quorum of supervisors from each of the above referenced units of government may be present.

Individuals wishing to direct written comments may do so to the attention of Jason Laumann, Northwest Regional Planning Commission, 1400 S. River Street, Spooner WI 54801 or by email to jlaumann@nwrpc.com

AGENDA

BARNES-DRUMMOND CWPP MEETING VI

Thursday, November 10th
Drummond Public Library - Drummond, Wisconsin
7 p.m.

1. Approve Agenda
2. Approve Meeting Minutes
3. Draft Narrative/Discussion/Review
4. Review of Final Hazard Assessment Models
5. Establish General Priorities and Mitigation/Education Actions (based on group discussion from October 25th meeting)
6. Plan Adoption Procedures
7. Set Next Meeting Date (may need additional meeting prior to scheduled December meeting)
8. Adjourn

It is possible a quorum of supervisors from each of the above referenced units of government may be present.

Individuals wishing to direct written comments may do so to the attention of Jason Laumann, Northwest Regional Planning Commission, 1400 S. River Street, Spooner WI 54801 or by email to jlaumann@nwrpc.com

Meeting Minutes
November 10th, 2005
Barnes-Drummond CWPP Meeting 7

Attendees: Al Tatzel (WDNR), Cheri Ford (USFS), Jack Meinke (Town of Barnes), Ken Marshall (NWRPC), Don Luebbe (WDNR),, Kirby Dernovsek (Bayfield County Forestry), Jennifer Maziasz (USFS), Tom Salzmann (WDNR) ,Jerry Jaskowiak (USFS), Neil Paulson (Town of Drummond), Jay Gallagher (WDNR), Del Jerome (Town of Drummond), Jim Grant (USFS), Jan Victorson (Bayfield County Emergency Management)

Absent: Dick Collyard (Town of Barnes), Dixie Chermack (Town of Barnes), Tom Renz (Town of Barnes) Mark Jerome (Town of Drummond FD),

Meeting called to order at 6:40 PM.

Ken Marshall from NWRPC presented the draft narrative and opens the meeting with discussion/review of the draft.

The review of final hazard assessment models were moved to number 5 on the agenda and general priorities and mitigation/education actions were move to number 4 because Jerry Jaskowiak (USFS) wanted to review/discuss the planning units with the committee. Mr. Jaskowiak recommended extending the planning units, and adding one additional planning unit within the Town of Drummond. Ken Marshall posed the question “are we getting away from the overall purpose of the CWPP by extending the planning unit boundaries because we are getting away from the WUI?” Jim Grant responded by stating that we don’t have to stay within the WUI boundaries according to the wildfire standards and that this plan is unique because of the size of the overall project area as a whole compared to other CWPP’s. Also Jennifer Maziasz brought up the point that we made these planning units because each area had different needs. The committee discussed the special needs of each planning unit at length and determined that the needs of the planning units were not within the initial boundaries. The committee discussed the special projects that were a concern for each planning unit and made alterations to those planning units to reflect the special projects. The committee also took Mr. Jaskowiak’s recommendations and added another planning unit called Forest Boundary planning unit.

The review of final hazard assessment models were moved to a special meeting on November 30th 2005 with the USFS, DNR, and Bayfield County Forestry. Jennifer Maziasz made a recommendation to have a special meeting with everyone who knows the planning units and has experience in hazardous fuel reduction to discuss the special projects needed for each planning unit. A meeting was set for November 30th at 1pm. At this meeting the group will discuss the project for each planning unit and review of final hazard assessment models for each planning unit. The results of this meeting will be discussed with the regular committee at the December 8th meeting.

The special meeting date was scheduled for **1:00 PM Wednesday, November 30th** at the DNR office in Brule to discuss the special needs within the planning units and final hazard assessment models.

The next regular committee meeting was scheduled for **6:30 PM Thursday, December 8th**.

Meeting adjourned at 9:00 PM

Minutes compiled by Ken Marshall

AGENDA

BARNES-DRUMMOND CWPP MEETING VII

Thursday, December 8th
Barnes Town Hall, Barnes Wisconsin
5:30 p.m.

1. Approve Agenda
2. Approve Meeting Minutes
3. Mitigation Action Items – Goal 2
4. Review Mitigation Action Items – Goal 1
5. Review and Discussion of Narrative Changes Since First Draft
6. Plan Adoption
7. Other Business
8. Adjourn

It is possible a quorum of supervisors from each of the above referenced units of government may be present.

Individuals wishing to direct written comments may do so to the attention of Jason Laumann, Northwest Regional Planning Commission, 1400 S. River Street, Spooner WI 54801 or by email to jlaumann@nwrpc.com

Meeting Minutes
December 8th, 2005
Barnes-Drummond CWPP Meeting 8

Attendees: Chris Worth (USFS), Jack Meinke (Town of Barnes), Jason Laumann (NWRPC), Kirby Dernovsek (Bayfield County Forestry), Tom Salzmann (WDNR) ,Jerry Jaskowiak (USFS), Del Jerome (Town of Drummond), Jim Grant (USFS)

Absent: **Attendees:** Al Tatzel (WDNR), Cheri Ford (USFS), Don Luebbe (WDNR),Jennifer Maziasz (USFS), Neil Paulson (Town of Drummond), Jay Gallagher (WDNR), Jan Victorson (Bayfield County Emergency Management), Dick Collyard (Town of Barnes), Tom Renz (Town of Barnes), Mark Jerome (Town of Drummond FD),

Meeting called to order at 5:30 PM.

During the special meeting held on November 30th, the Committee outlined a series of mitigation action items under goal 1 (Wildfire Prevention).

The Committee reviewed and approved the mitigation action items developed on 11-30-05 and began developing actions relative to goal 2 (Effective and Safe Suppression). Several proposals were brought forward related to projects which have been successfully implemented in other communities across the country.

The Committee also sought to identify the local equipment and training needs and to establish implementation actions for the acquisition of needed equipment.

Meeting adjourned at 9:00 PM

Minutes compiled by Jason Laumann

TOWN OF DRUMMOND

Bayfield County
Drummond, Wisconsin 54832

RESOLUTION APPROVING THE BARNES-DRUMMOND COMMUNITY WILDFIRE PROTECTION PLAN

WHEREAS President Bush signed into law the Healthy Forests Restoration Act of 2003 in order to reduce the threat of destructive wildfires while upholding environmental standards and encouraging early public input during review and planning processes, and

WHEREAS completion of a Community Wildfire Protection Plan will earn communities priority for funding hazardous fuels reduction projects carried out under the auspices of the Healthy Forests Restoration Act of 2003, and

WHEREAS the Board of Supervisors of the Town of Drummond has reviewed the draft of the Barnes-Drummond Community Wildfire Protection Plan and concurs with the final plan content,

NOW THEREFORE BE IT RESOLVED that the Town of Drummond hereby adopts the Barnes-Drummond Community Wildfire Protection Plan.

Enacted this fourteenth day of December, 2005

SIGNED: ATTEST:

Brian Miller, Chairman _____, Clerk

Royce Blom, Supervisor

_____, Supervisor

RESOLUTION 05-12

RESOLUTION OF TOWN BOARD OF THE TOWN OF BARNES, WISCONSIN AUTHORIZING APPROVAL OF THE BARNES-DRUMMOND COMMUNITY WILDFIRE PROTECTION PLAN

WHEREAS, President Bush signed into law the Healthy Forests Restoration Act of 2003 in order to reduce the threat of destructive wildfires while upholding environmental standards and encouraging early public input during review and planning processes, and

WHEREAS, on May 17, 2005, the Town of Barnes Board of Supervisors approved the development of a Community Wildfire Protection Plan for the Town's of Barnes and Drummond, and

WHEREAS, completion of a Community Wildfire Protection Plan will earn communities priority for funding hazardous fuels reduction projects carried out under the auspices of the Health Forests Restoration Act of 2003, and

WHEREAS, the Barnes Town Board of Supervisors has reviewed the draft of the Barnes-Drummond Community Wildfire Protection Plan and concurs with the final plan content.

NOW, THEREFORE, BE IT RESOLVED that the Town of Barnes hereby adopts the Barnes-Drummond Community Wildfire Protection Plan

PASSED AND ADOPTED by Town of Barnes Board of Supervisors, this 20th day of December 2005.

Richard Collyard, Chairman

Jack Meinke, Supervisor

Christine Webb, Supervisor

Dixie Chermack, Supervisor

Donna Porter, Supervisor

Attest: Elaine Brustad
Elaine Brustad, Clerk-Treasurer