

Stevens County, Washington

Community Wildfire Protection Plan

Appendices



2015 Update

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Acknowledgements

This Community Wildfire Protection Plan represents the efforts and cooperation of a number of organizations and agencies working together to improve preparedness for wildfire events while reducing factors of risk.



Stevens County Commissioners
and the employees of Stevens County



WASHINGTON STATE DEPARTMENT OF
Natural Resources

Washington State Department of Natural Resources



USDI Bureau of Land Management



USDA Forest
Service



USDI Bureau of
Indian Affairs



USDI Fish &
Wildlife Service



Department of Ecology



FEMA

Federal Emergency Management Agency



USDI National Park Service



City of Colville



City of Kettle Falls

Town of Northport
Town of Marcus
City of Chewelah
Town of Springdale

Stevens County Fire Districts



American Red Cross

Chewelah Fire Department
Colville Fire Department
Kettle Falls Fire Department
Marcus Fire Department
Northport Fire Department
Springdale Fire Department



Northeast Washington Forestry
Coalition

Stevens County Conservation District
&
Local Businesses and Citizens of Stevens
County

Copies of this plan can be found at:

Stevens County Courthouse
215 South Oak Street
Colville, Washington 99114

Phone: 50-684-7575
Fax: 509-684-8310
Website: www.co.stevens.wa.us

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Appendix 1

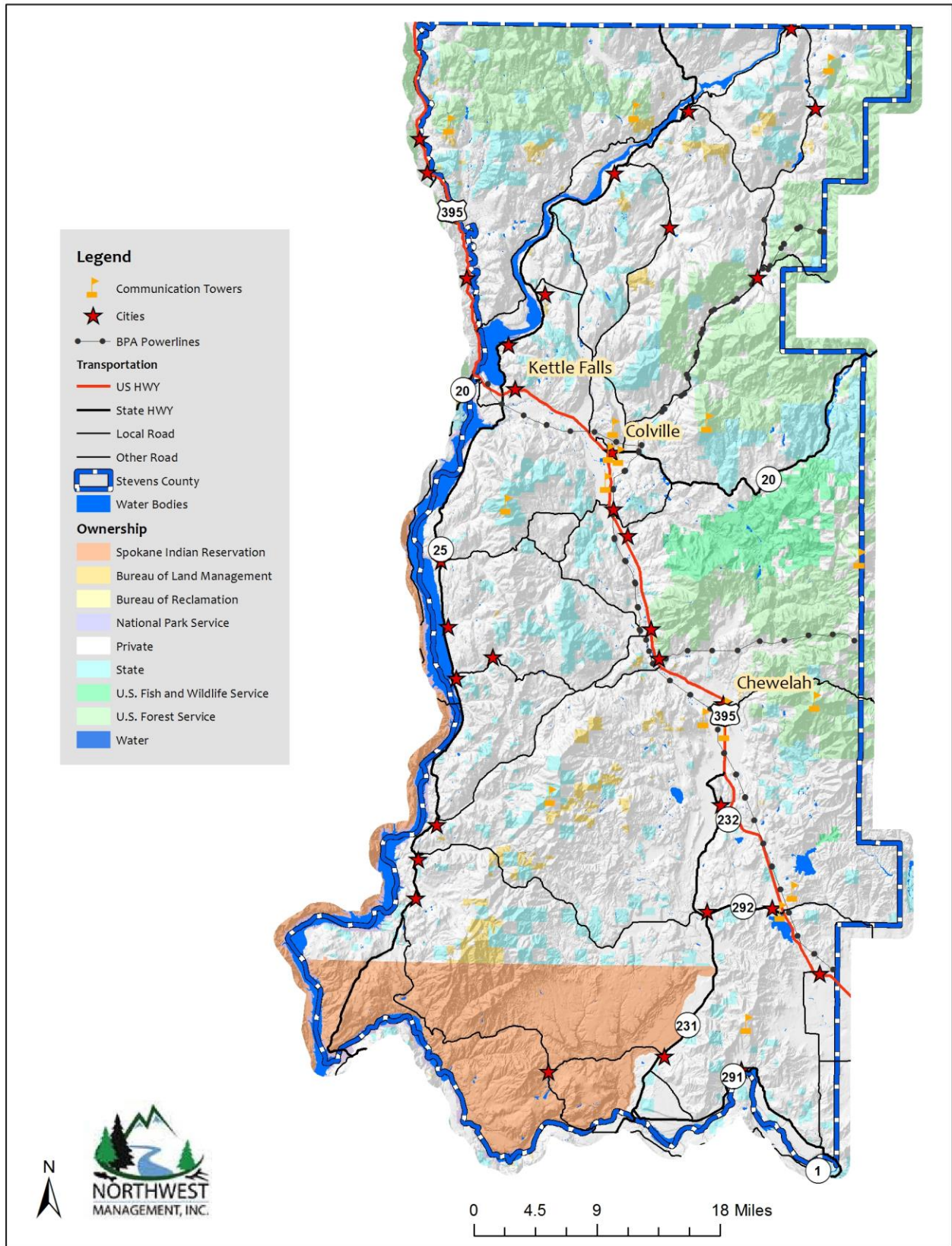
Mapping Products

Northwest Management, Inc.

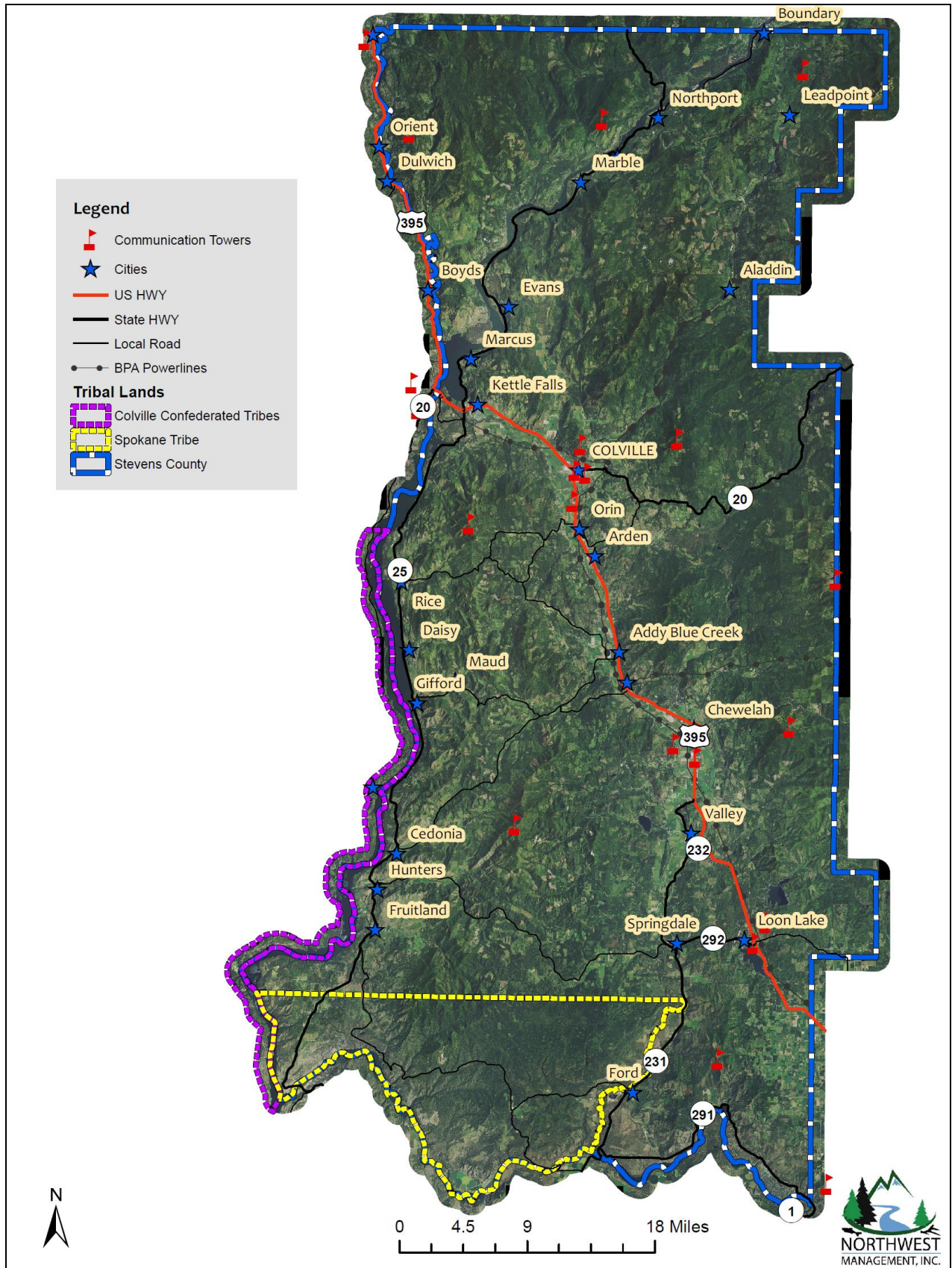
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P.O. Box 9748
Moscow, ID 83843
208-883-4488
www.Consulting-Foresters.com

The information on the following maps was derived from digital databases held by Northwest Management, Inc. Care was taken in the creation of these maps, but all maps are provided “as is” with no warranty or guarantees. Northwest Management, Inc. cannot accept any responsibility for errors, omissions, or positional accuracy, and therefore, there are no warranties accompanying this product. Although information from land surveys may have been used in the creation of this product, in no way does this product represent or constitute a land survey. Users are cautioned to field verify information on this product before making any decisions.

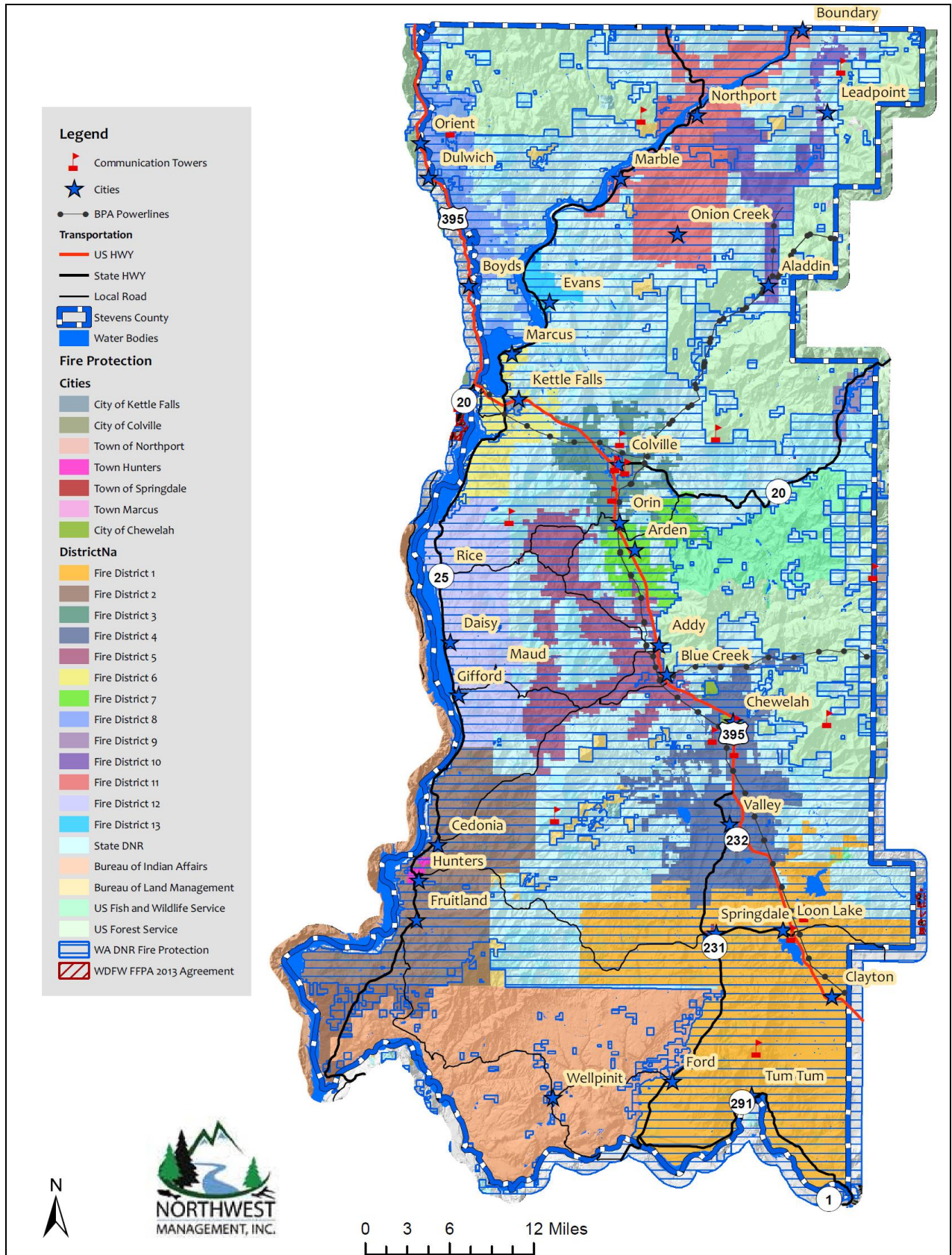
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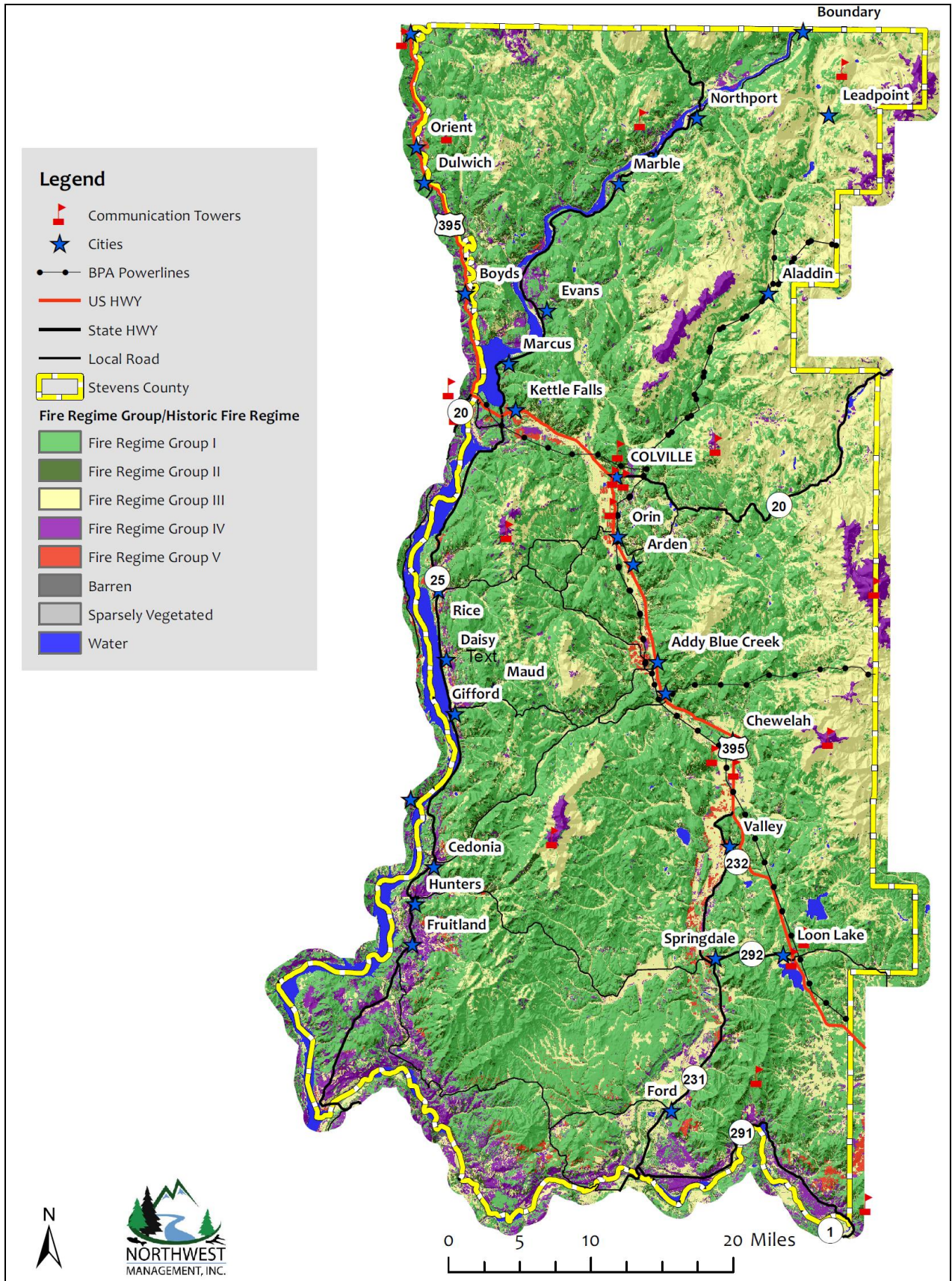
Aerial Imagery



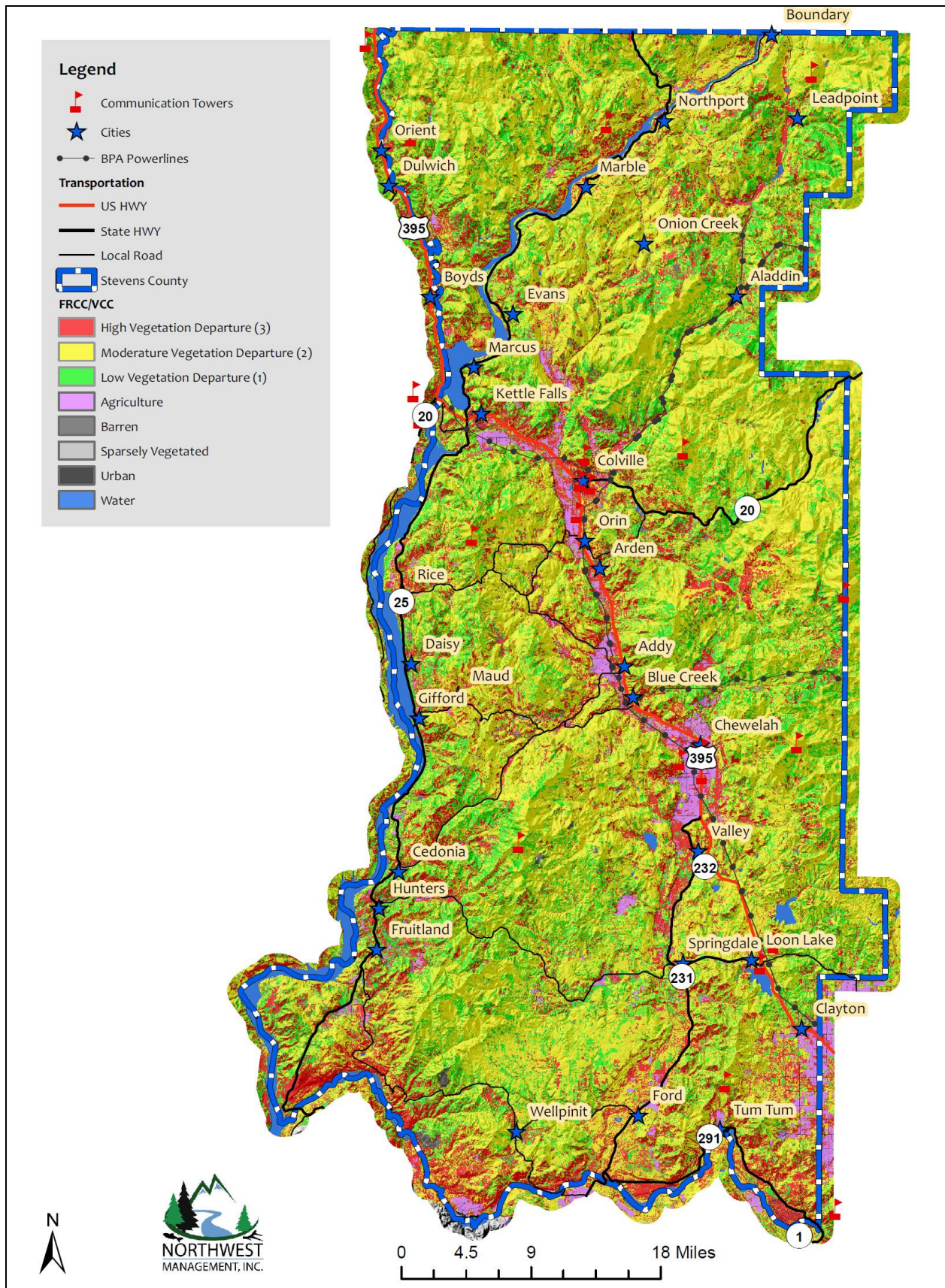
Fire Protection Boundary Map



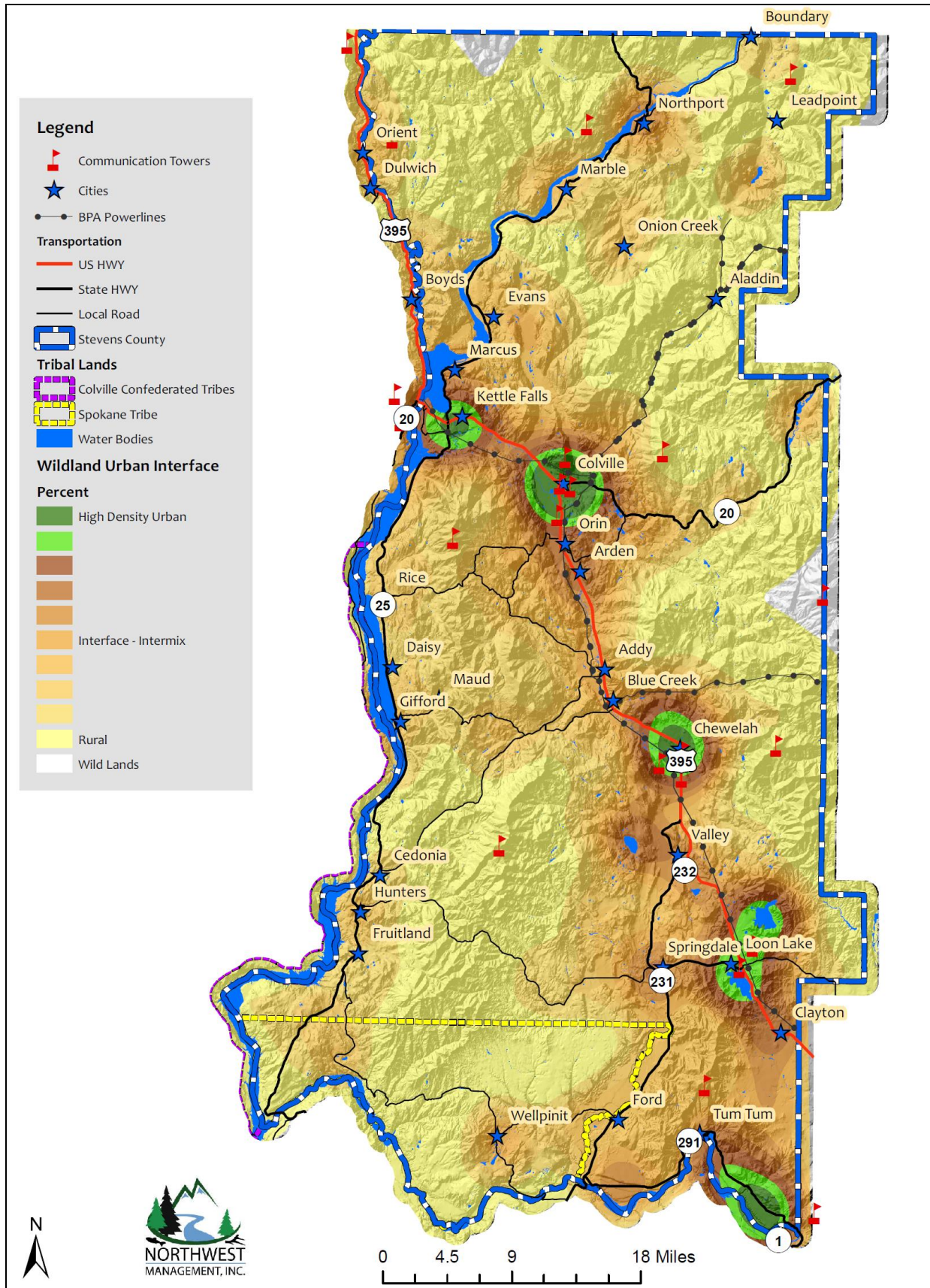
Historic Fire Regime Map



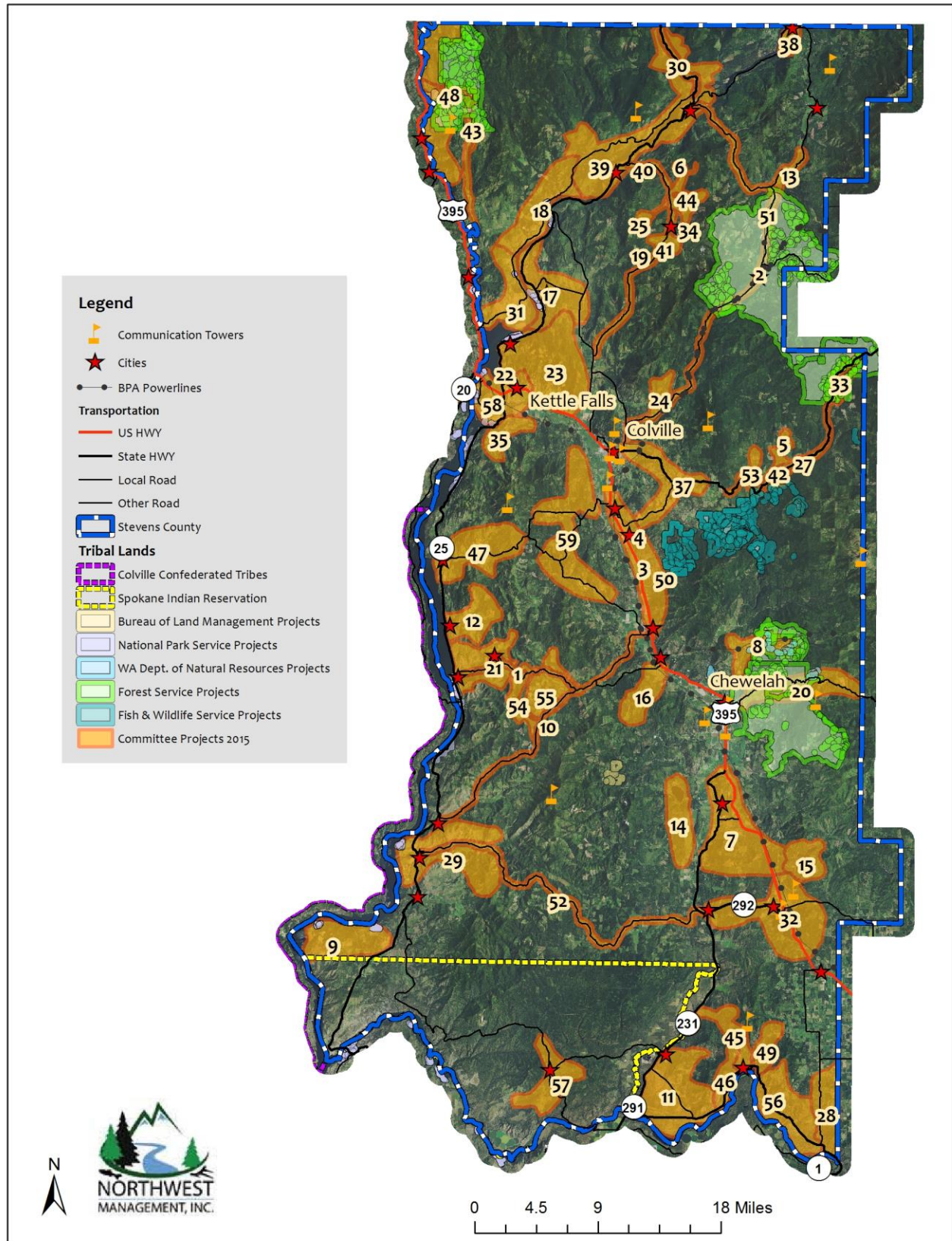
Vegetation Condition Class Map



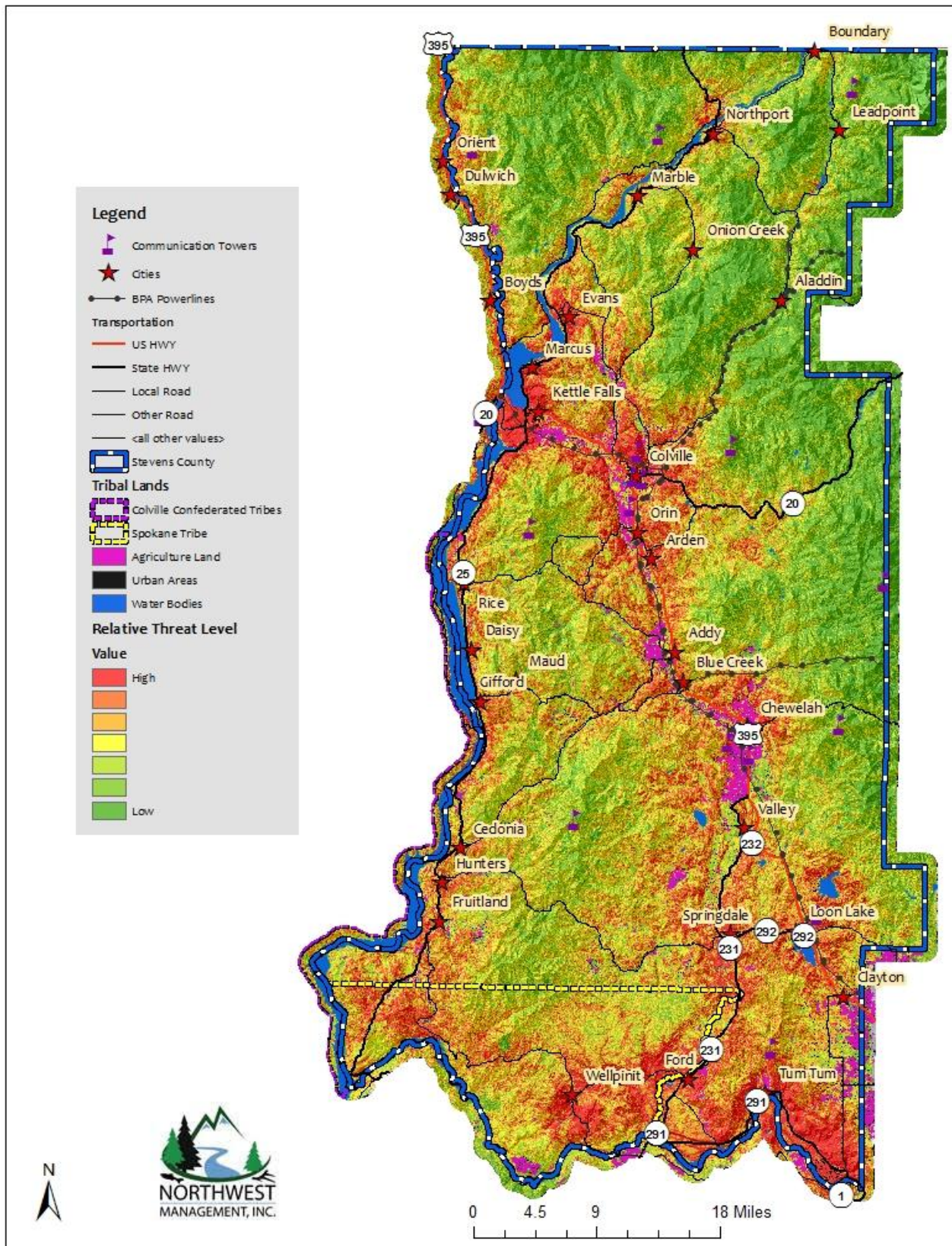
Wildland Urban Interface Map



Proposed Treatment Area Map



Relative Threat Level Map



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Appendix 2

Documenting the Planning Process

Documentation of the planning process, including public involvement, is necessary to meet FEMA’s DMA 2000 requirements (44CFR§201.4(c)(1) and §201.6(c)(1)). This appendix includes the minutes taken at planning committee meetings, a record of published articles regarding the CWPP, and the presentation given at local public meetings.

Planning Committee Meeting Minutes

November 12th, 2014 – NEWICC Dispatch Meeting Room, Colville

Attendance:

Steve Harris, Washington DNR	Dan Brauner, US Fish & Wildlife Service
Steve Parker, Stevens County Commissioner	Arne Johnson, Washington DNR
Eva Shoemaker-Maffei, Stevens County	Robert Scott Hunt, Stevens Co. Fire Protection District #1
Dan Lester, Stevens Co. Fire Protection District #12	Steve DeCook, Washington DNR
Dick Dunton, Northeast Washington Forestry Coalition	Arlen Alley, Stevens Co. Fire Protection District #10
Joe Paccereilli, Stevens Co. Fire Protection District #7	Paul Nelson, Washington DNR
Wes McCart, Stevens County Commissioner	Russ Larsen, Stevens Co. PLAC
Don Dashiell, Stevens County Commissioner	Shane Robson, Colville National Forest, 3 Rivers RD
Dean Hellie, Stevens Co. Conservation District	Meghan McEldery, Northwest Management, Inc. (NMI)
Tim VanDoren, Stevens Co. Fire Protection District #4	Tera King, Northwest Management, Inc. (NMI)
Mark Curtis, Stevens County I.S. Department	Brock Purvis, Northwest Management, Inc. (NMI)
Jason Gallagher, Stevens Co. Fire Protection District #1	Brad Tucker, Northwest Management, Inc. (NMI)
Mike Solheim, BLM Spokane District	Richard Parrish, BLM Spokane District

Agenda Item #1 – NMI Presentation:

Brad Tucker from Northwest Management gave a brief powerpoint presentation explaining the planning process, need for a Community Wildfire Protection Plan, and expectations from the planning committee. Individuals introduced themselves. NMI passed around handouts. Brad made a general request for committee members to send NMI relevant data (GIS, projects, plans, fire history, etc.)

Agenda Item #2– Public Involvement Strategy:

NMI briefly introduced the importance to include the public in the plan development. The committee was asked to be thinking of where press releases should be sent to reach the most people in Stevens County. This will be a topic that we revisit as we get closer to the public meeting dates.

Agenda Item #3 – Mission & Goals:

NMI passed out copies of the previous Mission & Goals statements for the committee to review. Some discussion was held on whether these needed updated or not. NMI asked the committee to review the Mission & Goals and bring any changes to the next meeting.

Agenda Item #4 – Fire District Surveys:

NMI explained the need to update the fire district and agency summaries. Any agency or fire district that has fire suppression responsibilities within Stevens County also need to provide an updated resource list to NMI. The committee requested that we send electronic versions of the survey forms to the committee.

Agenda Item #5 – Fire History:

The committee discussed the importance of developing a solid wildland fire history to show the need for mitigation projects. NMI will provide a map developed using agency data showing point locations of ignitions throughout the county at the next meeting for the committee to review. NMI requested fire history data from the local fire districts that may not show up at the state or federal level.

Agenda Item #6 – Wildland Urban Interface:

The committee reviewed the current version of the WUI map which was based on structure density that was attained from Avista's database. It was decided that the Stevens Co. GIS Department would send NMI the updated address structure layer and NMI will rebuild the map from that to determine if there are major differences between the old and new versions.

Agenda Item #7 – Immediate Concerns:

The committee asked NMI to contact the Spokane Tribe to inform them of the project and invite them to participate. The Tribe may also have an existing plan that NMI should review while developing the Stevens Co. CWPP at a minimum.

There have been some changes to the Stevens Co. Fire Protection Districts and Stevens Co. GIS will send shapefiles to NMI.

Smoke management is a concern within the County for two reasons; the first is that it can be too strict (particularly in the southern end of the County) at times which can limit treatment options for fuel reduction projects, the second is smoke from outside the County can have a significant impact on sensitive populations.

Point out lessons learned from Okanogan County's 2014 fire season and discuss including the development of a Communications Plan, Evacuation Plan, etc. within the Action Items of the CWPP.

Agenda Item # 8 – Meeting Schedule:

The next meeting is scheduled for December 17th at 1300 hours. The location is to be determined, NMI will send out a reminder prior to the meeting with the location.

December 17th, 2014 – Old Armory Building, Colville

Attendance:

Dick Dunton, NEW FC	Ben White, Stevens Co. F.D. #12
Paul Nelson, DNR - NC	Dan Lester, Stevens Co. F.D. #12
Les Schneiter, Stevens Co. F.D. #5	Steve Parker, Stevens County
Rob Lionberges, DNR – NE Region	Russ Larson, Stevens Co. PLA C
Don Gardner, Stevens Co. F.D. #7	Tim Van Doren, Stevens Co. F.D. #4
Myron Boles, DNR – NE Region	Mike Solheim, BLM – Spokane District
Arlen Alley, Stevens Co. F.D. #10	Ryan Power, City of Colville & SCFD #3
Eva Shoemaker-Maffei, Stevens County	Steve Harris, DNR – NE Region
Dean Hellie, Stevens Co. Conservation District	Brad Tucker, Northwest Management
Tonya Neider, Lake Roosevelt NRA	Meghan McEldery, Northwest Management
Dan Brauner, USFWS	Tiana Luke, Northwest Management
Michael Mace, Stevens Co. F.D. #7	Shane Robson, USFS Three Rivers RD

Agenda Item #1- Old Business

Brad Tucker gave a quick review of the previous meeting and inquired if there were any new comments on the Mission and Goals, Fire History, WUI comments, and public involvement. A reminder was given to complete the Fire District Surveys and return them to Brad as well as any information regarding past fire history.

Agenda Item #2 Maps Presentation

Brad introduced Ms. Tiana Luke, who gave a presentation on the maps developed to date. The maps included: Vegetation Condition Class, Historic Fire Regime, Rate of Spread, Wildfire Intensity, and Relative Threat Level. Ms. Luke described how the maps were developed and their relevance. Some concern was expressed over the weighting of layers in the Relative Threat Level Map. The Threat Level Map will be modified to incorporate committee observations and recommendations. Map information was requested by committee members.

Agenda Item #3 – Identify Project Locations

Brad and the committee reviewed old project locations and discussed new project locations. The new project locations will be added to the map for the next meeting.

Agenda Item #4 – Review of Chapters 1 & 3

Brad handed out copies of draft chapters 1 & 3 for committee members for review to provide comments or corrections at the next meeting. Brad provided an overview of each chapter and requested comments be returned in two weeks.

Agenda Item #5 – Field Assessments

Brad explained that in the next couple months we will be scheduling field trips around the county to assess some of the project areas and visit areas of concern that will be included in the CWPP. Committee members are strongly encouraged to attend and participate as well as show us locations they think are important to see.

Agenda Item #6 – Meeting Schedule

Next meeting will be January 21st at 1:00 pm in the Old Amory Building.

January 21st, 2015 – Old Armory Building, Colville

Attendance:

Dick Dunton, NEW FC	Mike Solheim, BLM – Spokane District
Paul Nelson, DNR - NC	Shane Robson, USFS Three Rivers RD
Les Schneider, Sevens Co. F.D. #5	Steve DeCook, DNR
Rob Lionberger, DNR – NE Region	Russ Larsen, Stevens Co. PLA C
Tonya Neider, Lake Roosevelt NRA	Arne Johnson, DNR
Myron Boles, DNR – NE Region	Brad Tucker, Northwest Management
Arlen Alley, Stevens Co. F.D. #10	Melissa Fischer, DNR
Kelly Connall, Stevens Co. F.D. #4	Robert Scott Hunt, Stevens Co. F.D. #11
Dan Brauner, USFWS	

Agenda Item #1- Old Business

Brad Tucker gave a quick review of the previous meeting and inquired if there were any new comments on the maps presented, Chapter 1, or Chapter 3.

Agenda Item #2 Prioritize Projects

The committee reviewed and discussed the updated project map. One area was added to an existing project area in the wedge. The committee discussed options for prioritizing the project areas and it was determined that each area is consider “High” priority. NMI will adjust the map and develop a table with descriptions of the project areas for the next meeting.

Agenda Item #3 – Action Items

Brad handed out a section of Chapter 6 which contained the “Action Items” from the original plan. Brad explained that these Action Items were the County’s ‘wish list’ of mitigation actions that could be funded by grants (provided there is funding available). The committee reviewed each item to determine if it had been completed or not, whether it was still needed, who is the lead and who is the support, and a timeline for completion. The status of a few of the items reviewed were unknown by present committee members, Brad was asked to contact County Planning or the Commissioners for updates. A few new items were added to the list of Action Items. Brad asked that committee members be thinking about needs for their jurisdiction and send them to Brad for inclusion into the updated list.

Agenda Item #4 – Review of Chapter 2

Brad handed out copies of chapter 2 to the committee. Comments or corrections should be emailed to Brad (tucker@nmi2.com) or brought to the next meeting. Brad provided a brief overview of the chapter.

Agenda Item #5 – Field Assessments

Brad explained that in the next month we will be scheduling field trips around the county to assess some of the project areas and visit areas of concern that will be included in the CWPP. Committee members are encouraged to attend and participate as well as show us locations they think are important to see.

Agenda Item #6 – Public Meetings

Public meetings will occur next month. Tentative schedule for these meetings is as follows;

Springdale – February 16th at 6pm

Northport – February 17th at 6pm

Colville – February 18th at 6pm

Committee members are encouraged to attend at least one public meeting to show support and assist in answering questions.

Agenda Item #7 – Meeting Schedule

Next meeting will be February 17th (Tuesday) at 1:00 pm in the Old Amory Building.

Agenda Item #8 – NFP Grant Discussion

Steve DeCook from Washington DNR asked the group for new project areas within Stevens County to be considered for grant funding to conduct fuels mitigation projects within 5 miles of Forest Service property. The group identified and prioritized two project areas for consideration.

February 17th, 2015 – Old Armory Building, Colville

Attendance:

Dick Dunton, NEW FC	Mike Solheim, BLM – Spokane District
Paul Nelson, DNR - NC	Shane Robson, USFS Three Rivers RD
Les Schneider, Stevens Co. F.D. #5	Steve DeCook, DNR
Rob Lionberger, DNR – NE Region	Russ Larsen, Stevens Co. PLA C
Tonya Neider, Lake Roosevelt NRA	Arne Johnson, DNR
Myron Boles, DNR – NE Region	Brad Tucker, Northwest Management
Arlen Alley, Stevens Co. F.D. #10	Melissa Fischer, DNR
Kelly Connall, Stevens Co. F.D. #4	Robert Scott Hunt, Stevens Co. F.D. #11
Dan Brauner, USFWS	

Agenda Item #1- Old Business

NMI gave a quick review of the previous meeting and inquired if there were any new comments on the prioritized project list, Action Items, or Chapter 2. The group reviewed the updated Project Areas map and made a few adjustments.

Agenda Item #2 Review Chapters 4 & 5

NMI passed out rough drafts of chapter 4 and 5. The group reviewed the chapters briefly and were asked by NMI to go through each chapter more thoroughly on their own. Chapter 4 discusses the wildland fire history for Stevens County and establishes the fire risk to the County by using computer generated models and comparing that with Fire District capabilities. The Wildland – Urban Interface for the County is also described in detail within this chapter. NMI is still lacking numerous Fire District surveys that are required for the CWPP to be an effective planning tool. Steve Harris with the DNR said he would attempt to contact the Districts who are missing information.

Chapter 5 includes the Landscape (fuel type) Risk Assessment for the County. NMI has grouped the fuel types for the County into three categories: Shrub/Steppe, Forest, and Agriculture. Each “grouping” is considered a Landscape and is described/assessed with regard to wildland fire.

Agenda Item #3 – Public Meetings

NMI conducted three public meetings throughout the County during the week of February 16th. The first was held in Springdale, the second in Northport, and the third was in Colville. All were well attended with 8-12 public and a few committee members.

Agenda Item #4 – Meeting Schedule

The next committee meeting will be held on March 18th, at 1300 hours in the Old Armory Building. This should be our last meeting, provided we do not receive major comments on the plan when it is released for review.

March 18th, 2015 – Old Armory Building, Colville

Attendance:

Shane Robson, USFS Three Rivers RD	Robert Scott Hunt, Stevens Co. F.D. #11
Steve DeCook, DNR	Steve Harris, DNR
Russ Larsen, Stevens Co. PLA C	Jerry Pechin, Stevens Co. F.D. #13
Arne Johnson, DNR	Dan Lester, Stevens Co. F.D. #12
Brad Tucker, Northwest Management	Steve Parker, Stevens County Commissioner
Myron Boles, DNR – NE Region	

Agenda Item #1- Old Business

NMI asked if there were any comments on Chapters 4 & 5 which the group received at the previous meeting. There were none.

Agenda Item #2 Review Full Draft

NMI passed out the final drafts of the full CWPP and associated Appendices. The group reviewed all the chapters briefly and were asked by NMI to go through each chapter more thoroughly on their own. There were some general typos that the group noticed. We are also still missing some of the Fire District/Agency summaries.

Please have any comments/revisions to Brad by March 31st.

Agenda Item #3 – Public Review

The group decided to open the document for 30 days starting around April 4th and running through early May. Hard copies of the plan will be available at all the public libraries and on Stevens County website. A press release will be sent out to inform the public when and where they can see the plan.

Agenda Item #4 – Meeting Schedule

This was our last meeting, provided we do not receive major comments on the plan when it is released for review.

Public Meeting Presentation

The following slideshow was presented at each of the public meetings by Brad Tucker of Northwest Management, Inc. In addition, where possible, a fire district or other planning committee representative opened the meeting with a brief introduction.

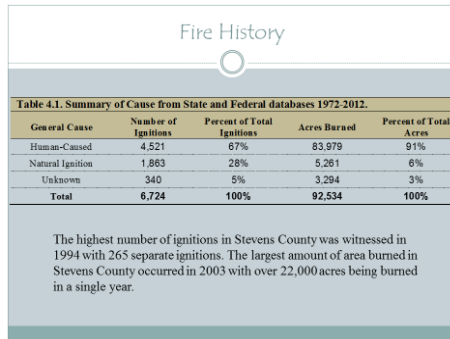
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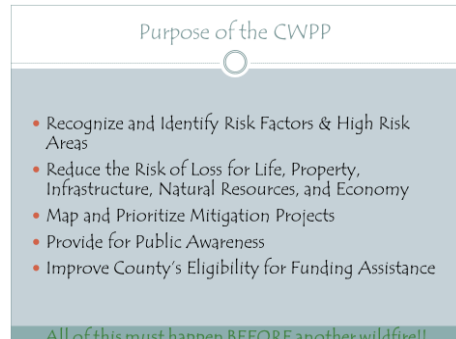
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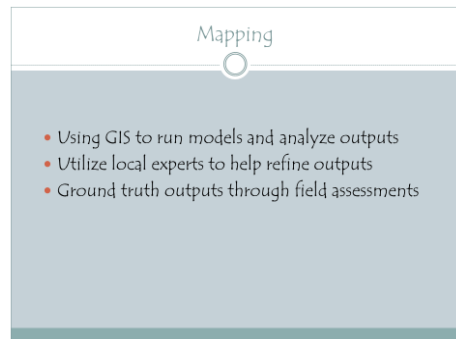
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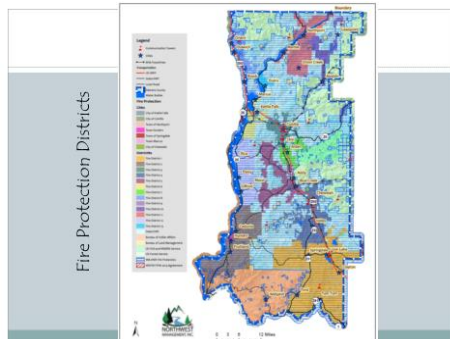
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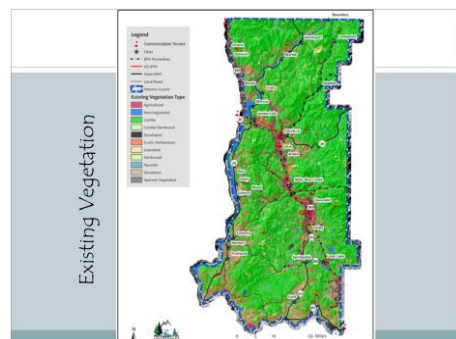
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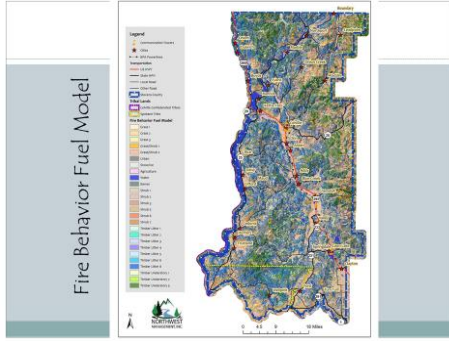
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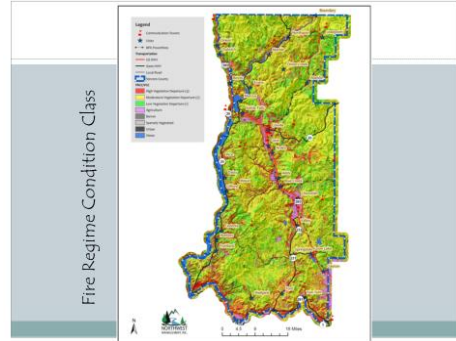
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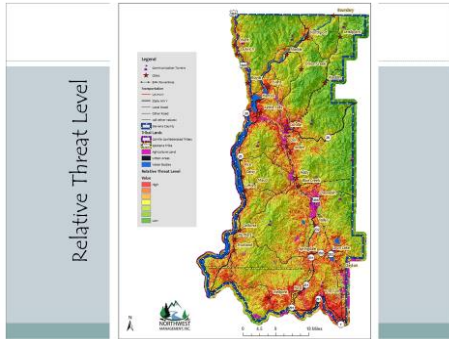
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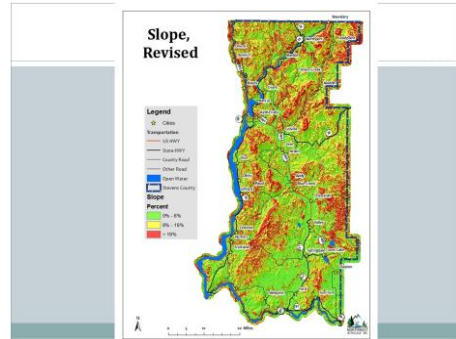
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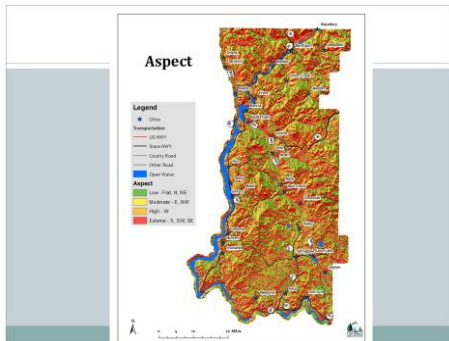
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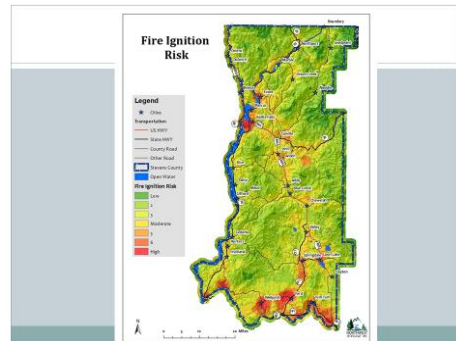
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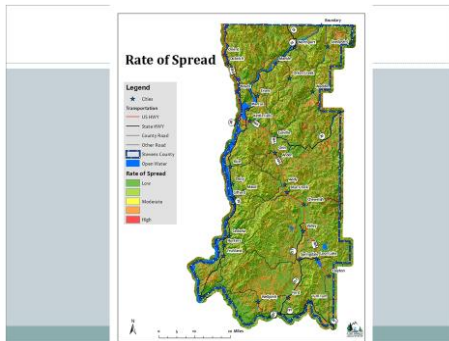
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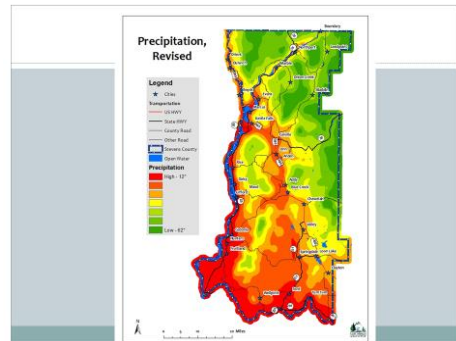
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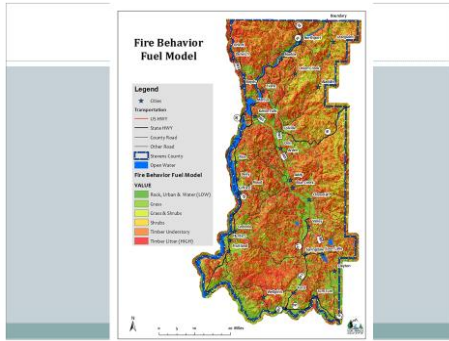
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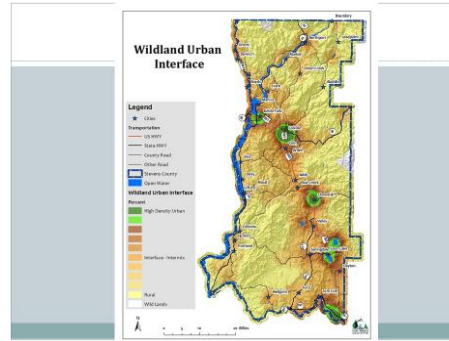
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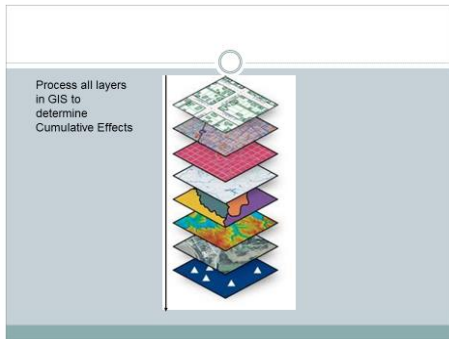
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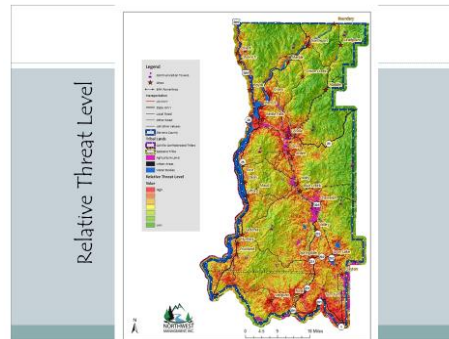
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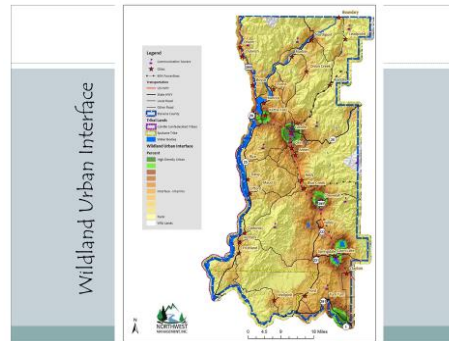
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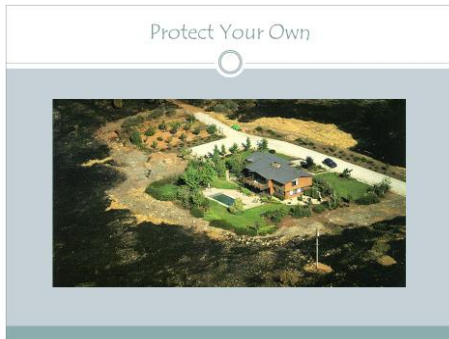
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Types of Projects

- Defensible Space
 - Thinning, pruning, construction materials, etc.
- Roadside Fuels Treatments
- Access Issues
 - Bridges, turnouts, ingress/egress, etc.
- Emergency Response Needs
 - Training, equipment, recruitment, etc.
- Policy Issues
 - WUI building codes, public education, etc.
- Pre-planning Efforts in High Risk Areas
 - Evacuation routes, safety zones, etc.

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Draft Project Areas

Slide 27

Your Input

- Maps on the Walls – Mark them up!
- Talk to one of the planning committee members.
- Let us know your ideas and concerns.
- Make this YOUR Plan!
- Thank you for attending and participating! Please visit with us.

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Brad Tucker
 208-883-4488 ext. 117
tucker@nmi2.com

Stevens County, Washington
 Community Wildfire Protection Plan

Public Comments

Some questions that were raised during public meetings and review process include (planning team responses are in red);

- Current firewood rules do not allow gatherers to easily get wood near roads. **The agencies that allow firewood gathering often target specific areas from year to year.**
- Why does the Forest Service consistently close roads which limits firefighter access? **The Forest Service has multiple reasons for closing roads. It is recommended that anyone who shares this concern to comment on the Forest Plan which is currently being updated.**
- Can this Plan have a list of private contractors who have firefighting capabilities included to allow local contractors to be called first? **The Washington DNR already maintains this list.**
- Can this Plan have a list of private contractors list of who can perform post fire rehab work? **The Washington DNR can assist landowners in identifying contractors who can perform this type of work. This list changes so frequently that it is not worth keeping an official list.**
- Is there something in place that can expedite a salvage harvest post fire? **The Washington DNR has protocol in place and is unaware of any issues that may have occurred in the past.**
- How do we reduce the risk of firefighting command teams not knowing that there may be local landowners fighting fire? **This is an on-going issue and there have not been any suggestions to alleviate this issue.**
- Burn permits are too expensive. **This is a matter to take up with the Washington DNR.**

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Appendix 3

Risk Analysis Models

Historic Fire Regime

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). Coarse-scale definitions for natural (historical) fire regimes have been developed by Hardy et al. (2001) and Schmidt et al. (2002) and interpreted for fire and fuels management by Hann and Bunnell (2001). The five natural (historical) fire regimes are classified based on average number of years between fires (fire frequency) combined with the severity (amount of replacement) of the fire on the dominant overstory vegetation. These five regimes include: I – 0-35 year frequency and low (surface fires most common) to mixed severity (less than 75% of the dominant overstory vegetation replaced); II – 0-35 year frequency and high (stand replacement) severity (greater than 75% of the dominant overstory vegetation replaced); III – 35-100+ year frequency and mixed severity (less than 75% of the dominant overstory vegetation replaced); IV – 35-100+ year frequency and high (stand replacement) severity (greater than 75% of the dominant overstory vegetation replaced); V – 200+ year frequency and high (stand replacement) severity.

A database of fire history studies in Washington was used to develop modeling rules for predicting historical fire regimes (HFRs). Tabular fire-history data and spatial data was stratified into ecoregions, potential natural vegetation types (PNVs), slope classes, and aspect classes to derive rule sets which were then modeled spatially. Expert opinion was substituted for a stratum when empirical data was not available.

Fire is one of the dominant disturbance processes that manipulate vegetation patterns in Washington. The HFR data were prepared to supplement other data necessary to assess integrated risks and opportunities at regional and subregional scales. The HFR theme was derived specifically to estimate an index of the relative change of a disturbance process, and the subsequent patterns of vegetation composition and structure.

This data was derived using fire history data from a variety of different sources. This data was designed to characterize broad scale patterns of historical fire regimes for use in regional and subregional assessments. Any decisions based on these data should be supported with field verification, especially at scales finer than 1:100,000. Because the resolution of the HFR theme is 30 meter cell size, the expected accuracy does not warrant their use for analyses of areas smaller than about 10,000 acres (for example, assessments that typically require 1:24,000 data).

Vegetation Condition Class

Vegetation Condition Class (VCC) is an interagency, standardized tool for determining the degree of departure from reference condition vegetation, fuels, and disturbance regimes. Assessing VCC can help guide management objectives and set priorities for treatments.

As scale of application becomes finer the five historic fire regimes may be defined with more detail, or any one class may be split into finer classes, but the hierarchy to the coarse scale definitions should be retained. Coarse-scale VCC classes have been defined and mapped by Hardy et al. (2001) and Schmidt et al. (2001). They include three condition classes for each historic fire regime. The classification is based on a relative measure describing the degree of departure from the historical natural fire regime. This departure results in changes to one (or more) of the following ecological components: vegetation characteristics (species composition, structural stages, stand age, canopy closure, and mosaic pattern); fuel composition; fire frequency, severity, and pattern; and other associated disturbances (e.g. insect and diseased mortality, grazing, and drought). There are no wildland vegetation and fuel conditions or wildland fire situations that do not fit within one of the three classes.

The three classes are based on low (VCC 1), moderate (VCC 2), and high (VCC 3) departure from the central tendency of the natural (historical) regime (Hann and Bunnell 2001, Hardy et al. 2001, Schmidt et al. 2002). The central tendency is a composite estimate of vegetation characteristics (species composition, structural stages, stand age, canopy closure, and mosaic pattern); fuel composition; fire frequency, severity, and pattern; and other associated natural disturbances. Low departure is considered to be within the natural (historical) range of variability, while moderate and high departures are outside.

Characteristic vegetation and fuel conditions are considered to be those that occurred within the natural (historical) fire regime. Uncharacteristic conditions are considered to be those that did not occur within the natural (historical) fire regime, such as invasive species (e.g. weeds, insects, and diseases), “high graded” forest composition and structure (e.g. large trees removed in a frequent surface fire regime), or repeated annual grazing that maintains grassy fuels across relatively large areas at levels that will not carry a surface fire.

Determination of amount of departure is based on comparison of a composite measure of fire regime attributes (vegetation characteristics; fuel composition; fire frequency, severity and pattern) to the central tendency of the natural (historical) fire regime. The amount of departure is then classified to determine the vegetation condition class. A simplified description of the fire regime condition classes and associated potential risks follow.

Vegetation Condition Class Risks and Management Options.						
Condition Class	Fire Regime	Management Options	Species Composition and Structure	Invasion by non-native Species	Smoke Production, Hydrology, and Soils	Insects and Disease
Condition Class 1	Fire Regimes are within the natural (historical) range and the risk of losing key ecosystems components is low. Vegetation attributes (Species composition, structure, and pattern) are intact and functioning within the natural (historical) range.	Where appropriate, these areas can be maintained within the natural (historical) fire regime by treatments such as fire use.	Species composition and structure are functioning within their natural (historical) range at both patch and landscape scales.	Non-native species are currently not present or present in limited extent. Through time or following disturbance, sites are potentially vulnerable to invasion by non-native species.	Functioning within their natural (historical) range.	Insect and disease populations functioning within their natural (historical) range.
Condition Class 2	Fire Regimes have been moderately altered from their natural (historical) range. Risk of losing key ecosystem components is moderate. Fire frequencies have departed from natural frequencies by one or more return intervals (either increased or decreased). This result in moderate changes to one or more of the following: fire size, intensity and severity, and landscape patterns. Vegetation and fuel attributes have been moderately altered from their natural (historical) range.	Where appropriate, these areas may need moderate levels of restoration treatments, such as fire use and hand or mechanical treatments, to be restored to the natural fire regime.	Species composition and structure have been moderately altered from their historical range at patch and landscape scales. For example: <u>Grasslands</u> – Moderate encroachment of shrubs and trees and/or invasive exotic species. <u>Shrublands</u> – Moderate encroachment of trees, increased shrubs, or invasive exotic species. <u>Forest/Woodland</u> – Moderate increases in density, encroachment of shade tolerant tree species, or moderate loss of shade intolerant tree species caused by fire exclusion, logging, or exotic insects or disease. Replacement of surface shrub/grass with woody fuels and litter.	Populations of non-native species have increased in some areas, thereby increasing the potential risk for these populations to expand following disturbances, such as wildland fires.	Have been moderately altered from their natural (historical) range. Water flow is typically slower. Smoke and soil erosion following a wildland fire is typically greater.	Insect and disease populations have been moderately altered from their natural (historical) Range.

Vegetation Condition Class Risks and Management Options.						
Condition Class	Fire Regime	Management Options	Species Composition and Structure	Invasion by non-native Species	Smoke Production, Hydrology, and Soils	Insects and Disease
Condition Class 3	Fire Regimes have been substantially altered from their natural (historical) range. The risk of losing key ecosystem components is high. Fire frequencies have departed from natural frequencies by multiple return intervals. Dramatic changes occur to one or more of the following: fire size, intensity, severity, and landscape patterns. Vegetation attributes have been substantially altered from their natural (historical) range.	Where appropriate, these areas may need high levels of restoration, such as hand or mechanical treatments, before fire can be used to restore the natural fire regime.	Species composition and structure have been substantially altered from their historical range at patch and landscape scales. For Example: <u>Grasslands</u> – High encroachment and establishment of shrubs, trees, or invasive exotic species. <u>Shrublands</u> - High encroachment and establishment of shrubs, trees, or invasive exotic species. <u>Forest/Woodland</u> - High increase in density, encroachment of shade tolerant tree species, or high loss of shade intolerant tree species caused by fire exclusion, logging, or exotic insects or disease.	Invasive species are common and in some areas the dominant species on the landscape. Any disturbance will likely increase both the dominance and geographic extent of these invasive species.	Have been substantially altered from their natural (historical) range.	Insect and disease populations have been substantially altered from their natural (historical) range. Potentially resulting in higher mortality or defoliation.

Relative Threat Level

Development of a Threat Level map for the Stevens County CWPP involved geographically developing and ranking the various threat categories identified by the CWPP Committee. Threat categories identified for the analysis include Slope, Aspect, Fire Behavior Fuel Model, Precipitation Levels, Predicted Rate of Fire Spread, Ignition Profile, and Population Density. The various data sets for each threat or condition were developed and ranked based on their significance pertaining to wildfire. The various ranked layers were then analyzed in a geographical information system to produce a cumulative effects map based on the ranking. Following is a brief explanation of the various threats identified for the analysis, and the general value ranking scheme used for each. The Relative Threat Level Map is found on page 9 of the appendices of the CWPP document.

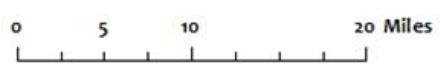
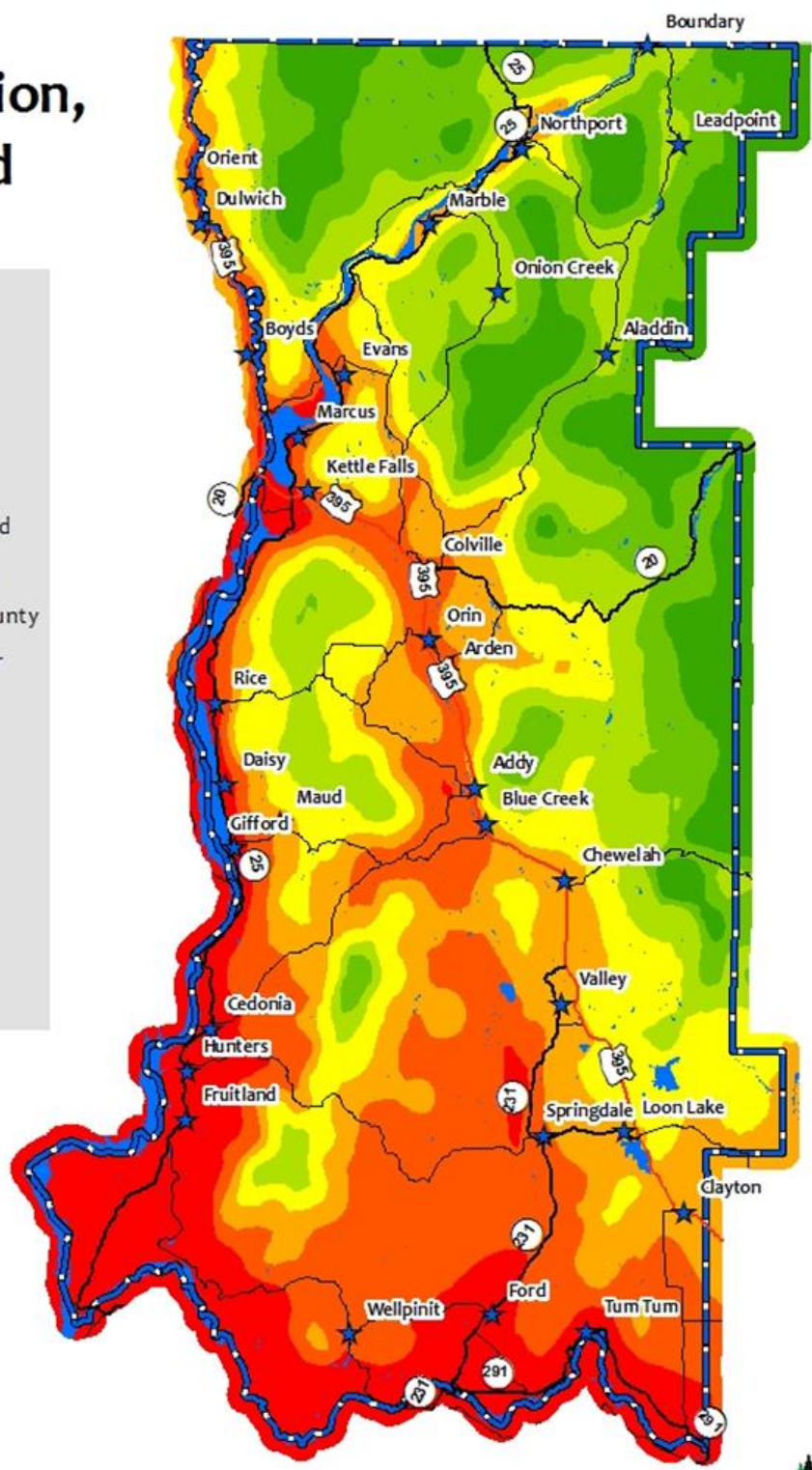
Precipitation

A GIS precipitation data layer developed by the USDA/NRCS – National Cartography & Geospatial Center, was used to identify average precipitation across Stevens County. The dataset provides derived average annual precipitation in polygon contour format according to a model using point precipitation and elevation data for the 30 year period of 1971-2000. Precipitation plays a role in wildfire threat; areas of lower precipitation are more likely to exhibit a higher threat than high precipitation areas. For the threat level analysis, a precipitation layer value was created by dividing the range of precipitation values into seven classes where the maximum precipitation average area for the county had the lowest treat value (1), and the lowest or driest average precipitation areas had the highest threat level (7).

Precipitation, Revised

Legend

- ★ Cities
- Transportation**
 - US HWY
 - State HWY
 - County Road
 - Other Road
- ▭ Stevens County
- Open Water
- Precipitation**
 - High - 12"
 -
 -
 -
 -
 - Low - 62"



Aspect

An aspect raster data layer was created in ArcGIS using the Spatial Analyst extension and a 10 meter digital elevation model. Data processing in ArcGIS assigns an aspect value from 0-359° to each pixel to represent compass azimuths. These azimuths were interpreted and given a treat value based on their relative contribution to wildfire behavior. In general, the southerly and westerly aspects have a higher threat level than the easterly and northerly aspects. Based on this, the raster values were classified into 4 aspect threat levels and assigned a threat value. The aspects Flat, North and Northeast were assigned a value of 1 for low, East and Northwest were assigned a value of 2 for moderate, West was assigned a value of 3 for high, and Southwest, South and Southeast were assigned a value of 4 for extreme aspect threat level.

Aspect

Legend

- ★ Cities
- Transportation**
- US HWY
- State HWY
- County Road
- Other Road
- Open Water
- Aspect**
- Low - Flat, N, NE
- Moderate - E, NW
- High - W
- Extreme - S, SW, SE



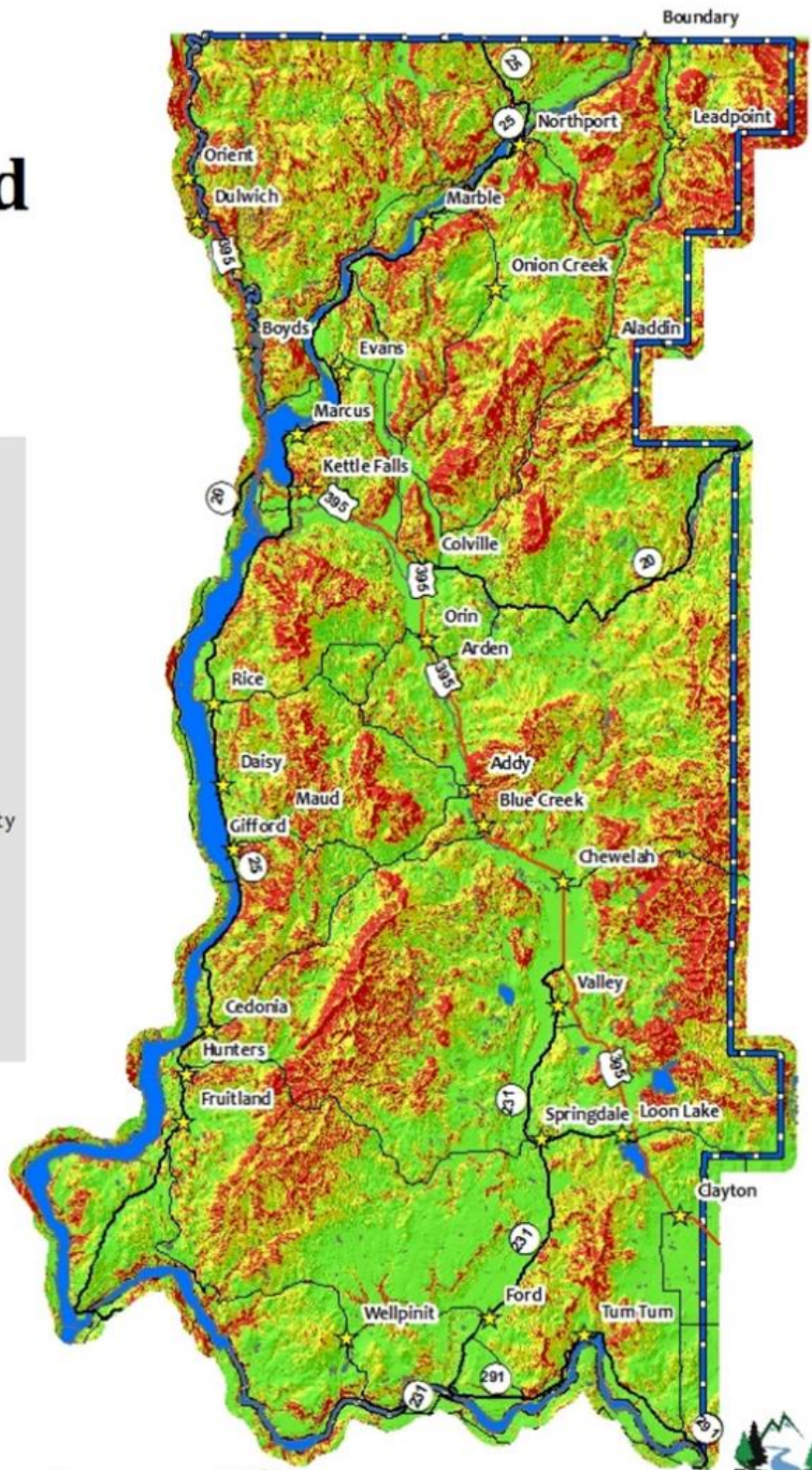
Slope

A slope raster data layer was created in ArcGIS using the Spatial Analyst extension and a 10 meter digital elevation model. Data processing in ArcGIS assigns a slope value in percent for each pixel. Once created, the slope model was classified into 3 groups, Low, Moderate, and High for final analysis. From a wildfire stand point, the threat from fire increases with increased slope. For this analysis, 0-10% slope was assigned a value of 1 for low threat, 10-33% slope a value of 2 for moderate threat, >33% slope a value of 3 for high or extreme threat.

Slope, Revised

Legend

- ★ Cities
- Transportation
 - US HWY
 - State HWY
 - County Road
 - Other Road
- Open Water
- ▭ Stevens County
- Slope
 - Percent
 - 0% - 8%
 - 8% - 19%
 - > 19%



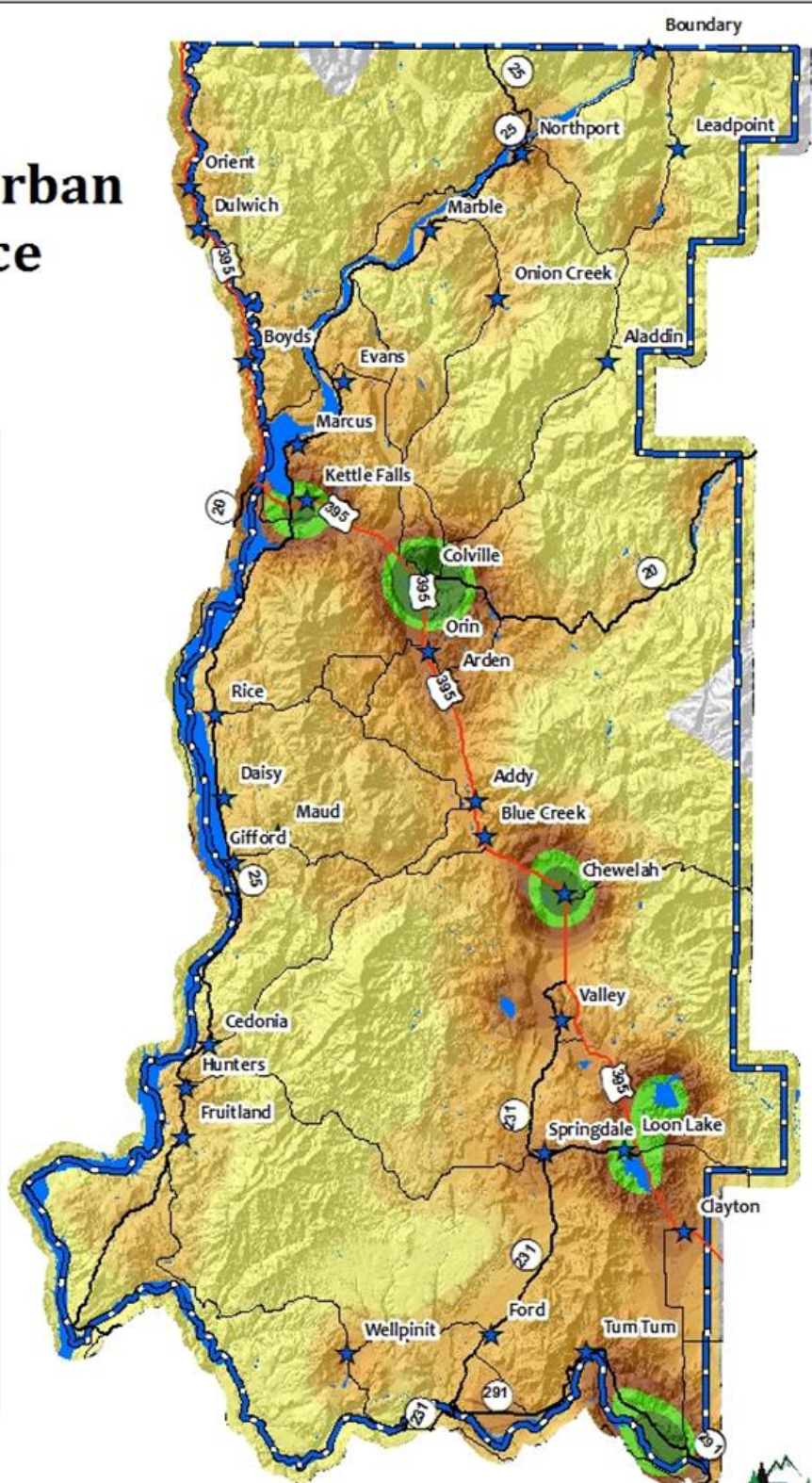
Wildland Urban Interface

Population density plays a role in Stevens County wildfire threat. A high proportion of all wildfires in the county are man caused. To represent this in a threat level analysis, population density across the county was portrayed using the WUI layer to show the areas of highest human occupation. The WUI layer was created using a Kernel density model based on the counties address point locations. The output from this analysis produces contour polygons of equal population density across the landscape. The contour polygon data set was then reclassified into six categories and assigned a population threat level value from 1 to 6 representing low to high threat based on population density. The assigned threat level values represent the relative threat caused by population density and the increased risk of fire being man caused as population increases.

Wildland Urban Interface

Legend

- ★ Cities
- Transportation**
- US HWY
- State HWY
- County Road
- Other Road
- ▭ Stevens County
- ▭ Open Water
- Wildland Urban Interface**
- Percent**
- High Density Urban
- Interface - Intermix
- Rural
- Wild Lands



Fire Occurrence

Historic fire data was used in the treat level analysis to add risk to areas where fire commonly occurred. Fire point location data for the period 1980-2014 was analyzed in ArcGIS using the Kernel density utility to create a fire population model. The output from this analysis produces contour polygons of equal fire occurrence across the landscape. The contour polygon data set was then reclassified into nine categories and assigned a threat value from 1 to 9 representing low to high threat based on fire occurrence. The assumption here is that areas with fewer fires have a relatively lower risk from fire occurrence whereas areas with a high number of fires, based on the data used, represented a higher level of risk.

Legend

- Communication Towers
- Cities
- BPA Powerlines
- US HWY
- State HWY
- Local Road
- Stevens County

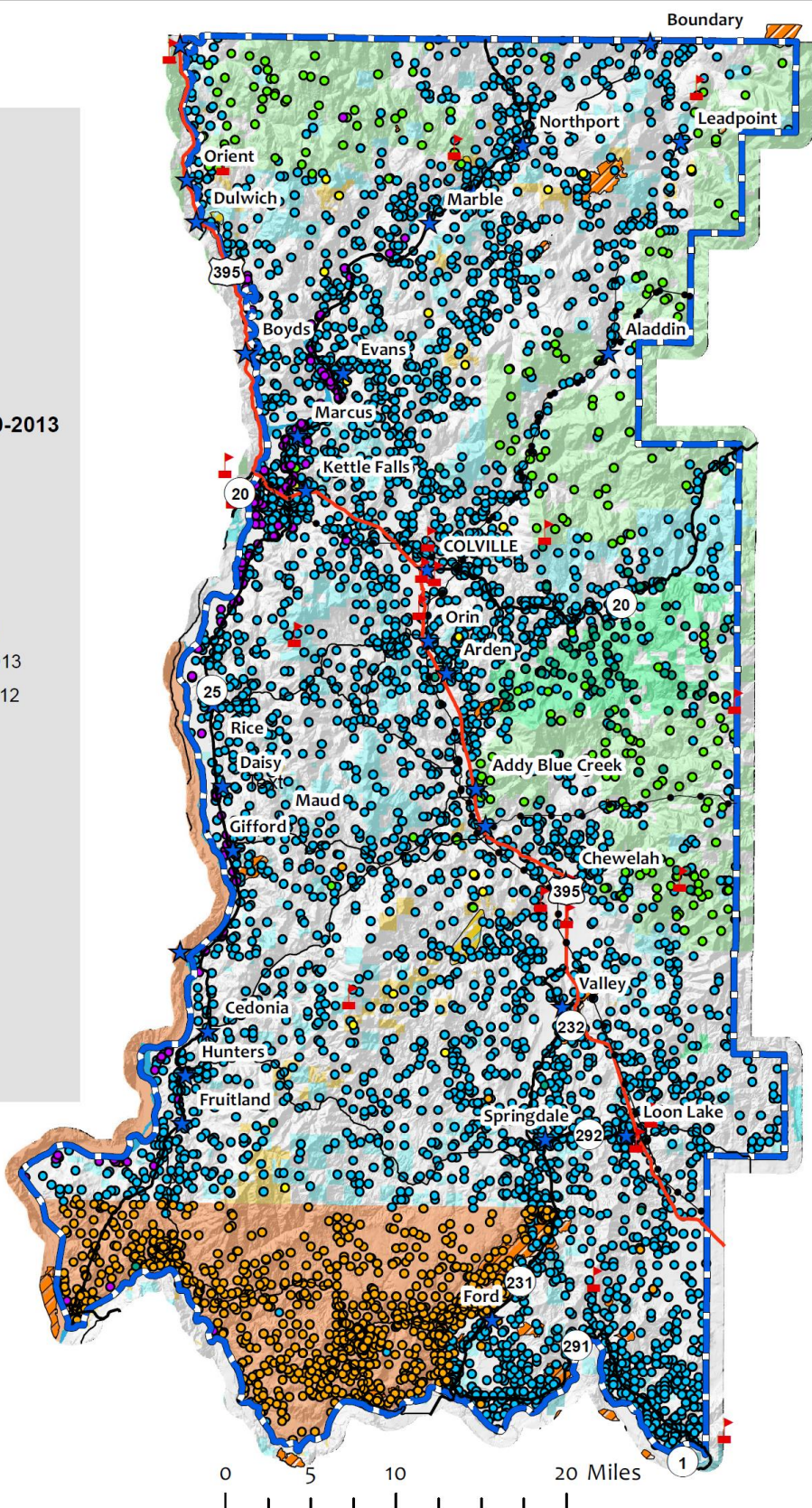
Stevens County Fires 1980-2013

- BIA
- BLM
- FS
- FWS
- NPS
- DNR Fires 1970-Oct 2014
- DNR Large Fires 1973- 2013
- BLM Large Fires 1981- 2012

Ownership_Stevens1mi

Ownership

- BIA
- BLM
- FWS
- PV
- State
- STP
- STW
- USFS
- WATER



Rate of Spread

Output data from the Wildland Fire Assessment Tool (WFAT) was used to predict Rate of Spread (ROS). ROS is a derived metric that classifies areas into four classes representing non-burnable, low ($ROS < 5.5$ ft/min), moderate ($5.5 \text{ft/min} < ROS < 55 \text{ft/min}$) and high spread rates ($ROS > 55$ ft/min). Predicted ROS outputs from the WFAT model were reclassified to incorporate a threat level value. A value of 0 was assigned to the non-burnable ROS, 1 to low ROS, 2 to the moderate ROS, and 3 to a high ROS.

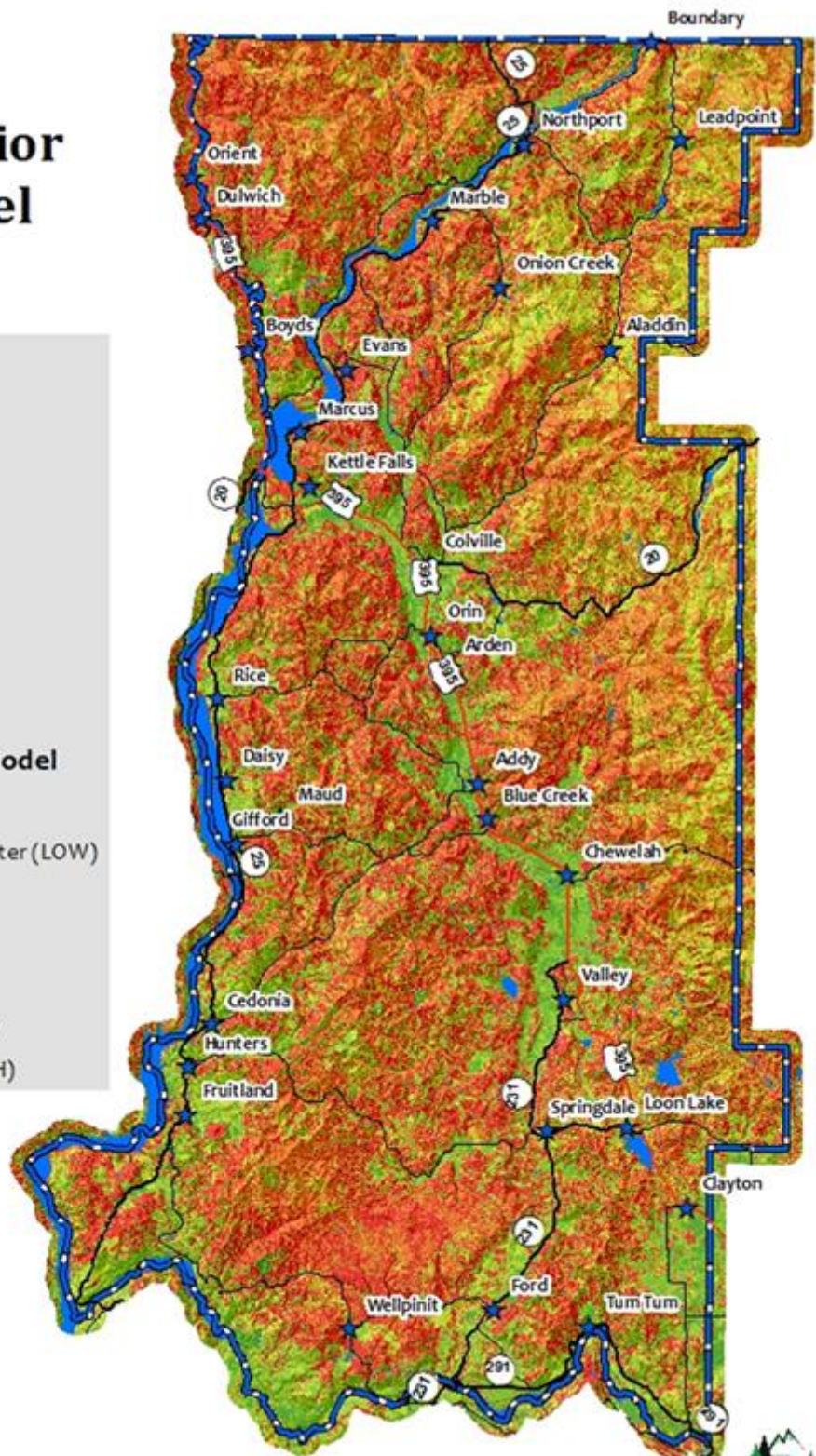
Fire Behavior Fuel Model

Scott and Burgan's 40 Fire Behavior Fuel Model was used in the threat level analysis to provide wildfire fuels information. For this analysis, the variety of fuels present in Stevens County that were depicted in the fuels layer were grouped into 6 threat level value categories based on perceived relative contribution to wildfire threat. The following ranking was used in the analysis. Rock, Urban and Water areas were assigned a value of 0, Grass fuels were assigned a value of 2, Grass Shrubs were assigned a value of 3, Shrubs a value of 4, Timber Understory a value of 5, and Timber Litter a value of 5. The values given the categories are meant to represent the role various surface fuels contribute to overall wildfire threat in Stevens County.

Fire Behavior Fuel Model

Legend

- ★ Cities
- Transportation**
- US HWY
- State HWY
- County Road
- Other Road
- ▭ Stevens County
- ▭ Open Water
- Fire Behavior Fuel Model**
- VALUE**
- Rock, Urban & Water (LOW)
- Grass
- Grass & Shrubs
- Shrubs
- Timber Understory
- Timber Litter (HIGH)



Relative Threat Level

Each data layer was developed, ranked and converted to a raster format using ArcGIS 10.1. The eight data layers were analyzed in ArcGIS using the Spatial Analyst extension to calculate their cumulative effects. This process sums the ranked overlaid values geographically at the pixel level to produce a final threat map layer. The final derived cumulative effects layer produced from the eight threat layers identifies the areas where the relative threat, based on the data sets used, is the highest. Areas with the highest values are the areas of concern based on the threats identified and values used. Varying results will occur by adjusting the threat value with in a particular layer, or omitting layers from the analysis. All threat values used in this analysis are based on discussion with committee members, documentation and general wildfire behavior characteristics. Adjusting or varying threat level values may result in a different final threat level in a particular geographic area.

Appendix 4

Fire Services Information

Stevens County

Fire Protection District #1:

Chief: Mike Bucy
Telephone: (509) 262-9660
Email: mbucy@scfpd1.com
Address: 4532 Railroad Avenue, PO Box 246,
Clayton, WA 99110

Stevens County

Fire Protection District #2:

Chief: Rick Anderson
Telephone: (509) 772-3100
Email: scfd2@theofficenet.com
Address: 5030-B Lemon Avenue, PO Box 86,
Hunters, WA 99137

Stevens County

Fire Protection District #3:

Chief: Brad Menke
Telephone: (509) 684-3781
Address: 261 E First Avenue, PO Box 638,
Colville, WA 99114

Stevens County

Fire Protection District #4:

Chief: Tim Vandoren
Telephone: (509) 937-2246
Email: scfd4@centurytel.net
Address: 3060 3rd, PO Box 190
Springdale, WA 99181

Stevens County

Fire Protection District #5:

Chief: Les Schneiter
Telephone: (509) 935-8738
Address: PO Box 180
Addy, WA 99101

Stevens County

Fire Protection District #6:

Chief: John Ridlington
Telephone: (509) 738-6664
Email: firesix@centurylink.net
Address: 145 E Sixth Avenue, PO Box 1268
Kettle Falls, WA 99141

Stevens County
Fire Protection District #7:
Chief: Joe Paccarelli
Telephone: (509) 685-9415
Email: scfd7@theofficenet.com
Address: 649 Elm Tree Drive
Colville, WA 99114

Ferry / Stevens County
Fire Protection District #8:
Chief: Herb Hippler
Telephone: (509) 684-1240
Address: 3372 Rockcut Road, Kettle Falls, WA 99141

Stevens County
Fire Protection District #9:
Chief: Ted Downey
Telephone: (509) 684-3375
Email: stevensfire9@gmail.com
Address: 2396 Lake Sherry Homes Dr.
Colville, WA 99114

Stevens County
Fire Protection District #10:
Chief: Interim Chief
Telephone: (509) 732-1112
Email:
Address: 2572 Smack Out Creek Road (Physical)
Colville, WA 99118

Stevens County
Fire Protection District #11:
Chief: Robert "Scott" Hunt
Telephone: (509) 732-0262
Email:
Address: 2555 Onion Creek Road
Northport, WA 99157

Stevens County
Fire Protection District #12:
Chief: William Murphy
Telephone: (509) 738-6352
Email:
Address: 1985 Orion-Rice Road
Rice, WA 99167

Stevens County
Fire Protection District #13:
Chief: Jerry Pechin
Telephone: (509)-685-9792
Email:
Address: 2457 Off Kilter Way, Evans WA 99126

Washington Department of Natural Resources Arcadia District:
District Manager: Andrew Stenbeck
Telephone: (509)-684-7484
Address: 225 S Silke Road, Colville, WA 99114

**Washington Department of Natural
Resources North Columbia District:**

District Manager: Arne Johnson
Telephone: (509)-684-7484
E-Mail:
Address: 225 S Silke Road, Colville, WA 99114

**U.S. Forest Service:
Colville National Forest**

Forest FMO: Tim Sampson
Telephone: (509)-684-7000
Address: 765 S. Main Street, Colville, WA 99114

**Bureau of Land Management:
Spokane District**

Spokane District
District FMO: Dennis Strange
Telephone: (509)-536-1237
Address: 1103 N. Fancher, Spokane Valley, WA 99212

**National Park Service:
Lake Roosevelt NRA**

NOCA/LRNRA FMO: Dee Townsend
Telephone: (509)-996-5008
(360)-854-7350
Address: North Cascades National Park and Lake
Roosevelt NRA
7280 Ranger Station Rd., Marblemount, WA 98267

Fire Services Resource List

	Type	Resource	Gallons	Drive	Vehicle or License #	Specifications	Location
Stevens County F.P.D. #4	Ford F-550		300		1FDAF57P36EA19345		
	Freightliner FLD-70		1000		1FV6HLCB5WH943677		
	International S-2500		3750		DF257KGB16775		
	Ford F-4D		300		1FDXF47S4YEA99279		
	KME INTL 480	Pumper	1000		1HTSEAAAR5XH616868		
	International S-2500		2000		1HSZJXXROHH480835		
	Ford F-450		300		1FDXW47P36EB56676		
	Freightliner M-2		1000		1FVACYDJ07HX99422		
	International S-2500		3750		DF257HHA21445		
	Chevy 3500		250		1GBJK34J2TE233294		
	International Pumper		1000		1HTSEAA8TH281051		
	Ford F-350		300		1FDKF38G2LKA37050		
	Chevy Ambulance		N/A		1GBJC34N3NE166286		
	Ford Expedition		N/A		1FMPU16L64LB39284		
	Ford F-360		N/A		1FDKF3812FPA81134		
	Chevy C-30		300		1GBJV34M6HJ150645		
GMC/FMC		1000		1GDL71E0EV535958			
Washington Department of Natural Resources		Handcrew				10 Persons	North Columbia District
	Type 7		150	4x4			North Columbia District
	Type 7		150	4x4			North Columbia District
	Type 6	3 person crew	240	4x4			North Columbia District
	Type 6	3 person crew	240	4x4			North Columbia District
	Type 6	3 person crew	240	4x4			North Columbia District
	Type 6	3 person crew	240	4x4			North Columbia District
	Type 6	3 person crew	240	4x4			North Columbia District
	Type 5	3 person crew	425	4x4			North Columbia District
	Type 5	3 person crew	425	4x4			North Columbia District
	Mop-up Trailer					Extra hose, pumps, & tools	North Columbia District
	Mop-up Trailer					Extra hose, pumps, & tools	North Columbia District

	Type	Resource	Gallons	Drive	Vehicle or License #	Specifications	Location
	Water Tender		2,000			Extra hose, fittings	North Columbia District
	Type 6	3 person crew	240	4x4		Hose, pumps, chainsaw, & tools	Arcadia District
	Type 6	3 person crew	240	4x4		Hose, pumps, chainsaw, & tools	Arcadia District
	Type 6	3 person crew	240	4x4		Hose, pumps, chainsaw, & tools	Arcadia District
	Type 5	3 person crew	425	4x4		Hose, pumps, chainsaw, & tools	Arcadia District
	Type 5	3 person crew	425	4x4		Hose, pumps, chainsaw, & tools	Arcadia District
	Type 5	3 person crew	425	4x4		Hose, pumps, chainsaw, & tools	Arcadia District
	Type 5	3 person crew	425	4x4		Hose, pumps, chainsaw, & tools	Arcadia District
	Type 5	3 person crew	425	4x4		Hose, pumps, chainsaw, & tools	Arcadia District
	Type 5	3 person crew	425	4x4		Hose, pumps, chainsaw, & tools	Arcadia District
	Type 5	3 person crew	425	4x4		Hose, pumps, chainsaw, & tools	Arcadia District
	Type 5	3 person crew	425	4x4		Hose, pumps, chainsaw, & tools	Arcadia District
	Type 5	3 person crew	425	4x4		Hose, pumps, chainsaw, & tools	Arcadia District
	Mop-up Trailer					Extra hose, pumps, & tools	Arcadia District
	Mop-up Trailer					Extra hose, pumps, & tools	Arcadia District
	Dozer	Available on request					Arcadia District
	Single Engine Air Tanker	June - September	700				Deer Park Airport
	Handcrew	10 person					Airway Heights
	Handcrew	10 person					Airway Heights
	Handcrew	10 person					Airway Heights
	Handcrew	10 person					Airway Heights
BLM	Type 6	Wildland Engine	300	4x4	E-6696		Spokane
	Type 6	Wildland Engine	300	4x4	E-6695		Wenatchee
	Type 2	Handcrew		4x4	C-6201	10-person handcrew	Spokane

	Type	Resource	Gallons	Drive	Vehicle or License #	Specifications	Location
	ICT3	Command Vehicle					Spokane
		Chipper		Trailer		Vermeer BC1200	Spokane
U.S. Forest Service	Type IV	Wildland Engine	300				Colville
	Type IV	Wildland Engine	300				Colville
	Handcrew	10 Person					Colville
USFWS	Type 6	Wildland Engine	300	4x4	LPO E1		Little Pend Oreille NWR
	Type 6	Wildland Engine	300	4x4	LPO E2		Little Pend Oreille NWR
NPS/LRNRA	Type 6	Wildland Engine	300	4x4	E-74		Kettle Falls
	Type 2	3-8 person crew			Crew 73		Kettle Falls

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Appendix 5

State and Federal CWPP Guidance

National Cohesive Strategy

In response to requirements of the Federal Land Assistance, Management, and Enhancement (FLAME) Act of 2009, the Wildland Fire Leadership Council (WFLC) directed the development of the National Cohesive Wildland Fire Management Strategy (Cohesive Strategy).

The Cohesive Strategy is a collaborative process with active involvement of all levels of government and non-governmental organizations, as well as the public, to seek national, all-lands solutions to wildland fire management issues.

The Cohesive Strategy is being implemented in three phases, allowing stakeholders to systematically develop a dynamic approach to planning for, responding to, and recovering from wildland fire incidents. This phased approach is designed to promote dialogue between national, regional and local leadership.

Phase I involved the development of two documents: [A National Cohesive Wildland Fire Management Strategy](#) and the [The Federal Land Assistance, Management And Enhancement Act Of 2009 - Report to Congress](#). These documents provide the foundation of the Cohesive Strategy.

In Phase II, regional assessments were completed to address the national goals to the needs and challenges found at regional and local levels. Regional Strategy Committees representing three regions of the country—the Northeast, Southeast, and West—examined the processes by which wildland fire, or the absence thereof, threatens areas and issues that American value, including wildlife habitats, watershed quality, and local economies, among others.

Phase III involves taking the qualitative information gathered in Phase II and translating it into quantitative models that can help inform management actions on the ground. Once the strategy is finalized, it will be implemented across the country and overseen by the Wildland Fire Executive Council (WFEC), which will establish a five-year review cycle to provide updates to Congress.

The Wildland Fire Executive Council (WFEC) accepted the final Regional Action Plans for each of the Cohesive Strategy Regions: [Northeast](#), [Southeast](#), and [West](#) in April 2013. The WFEC tasked the Cohesive Strategy Sub-Committee (CSSC) to use the regional action plans to inform the development of the national action plan. The National Risk Analysis Report and National Action Plan will become WFEC recommendations to the Wildland Fire Leadership Council (WFLC) and ultimately to the Secretaries of the Interior and Agriculture. The regional action plans reflect the regional perspective that is important in the development of that national-level recommendation. Implementation of actions identified in Regional Action Plans is the responsibility of the sponsoring organizations at the discretion of those organizations.

National Fire Plan

The National Fire Plan (NFP) was developed by the U.S. Departments of Interior and Agriculture and their land management agencies in August 2000, following a landmark wildland

fire season, with the intent of actively responding to severe wildland fires and their impacts to communities while ensuring sufficient firefighting capacity for the future. The NFP addresses five key points: Firefighting, Rehabilitation, Hazardous Fuels Reduction, Community Assistance, and Accountability. The National Fire Plan continues to provide invaluable technical, financial, and resource guidance and support for wildland fire management across the United States. Together, the USDA Forest Service and the Department of the Interior are working to successfully implement the key points outlined in the National Fire Plan.

This Community Wildfire Protection Plan fulfills the National Fire Plan's 10-Year Comprehensive Strategy Implementation Plan (WFLC 2006). The projects and activities recommended under this plan are in addition to other federal, state, and private / corporate forest and rangeland management activities. The implementation plan does not alter, diminish, or expand the existing jurisdiction, statutory and regulatory responsibilities and authorities or budget processes of participating federal and state agencies.

The NFP goals of this Community Wildfire Protection Plan include:

1. Improve Fire Prevention and Suppression
2. Reduce Hazardous Fuels
3. Restoration and Post-Fire Recovery of Fire-Adapted Ecosystems
4. Promote Community Assistance

By endorsing this implementation plan, all signed parties agree that reducing the threat of wildland fire to people, communities, and ecosystems will require:

- Maintaining firefighter and public safety continuing as the highest priority.
- Communities and individuals in the wildland-urban interface to initiate personal stewardship and volunteer actions that will reduce wildland fire risks.
- A sustained, long-term and cost-effective investment of resources by all public and private parties, recognizing overall budget parameters affecting federal, state, county, and local governments.
- A unified effort to implement the collaborative framework called for in the strategy in a manner that ensures timely decisions at each level.
- Accountability for measuring and monitoring performance and outcomes, and a commitment to factoring findings into future decision making activities.
- The achievement of national goals through action at the local level with particular attention to the unique needs of cross-boundary efforts and the importance of funding on-the-ground activities.
- Management activities, both in the wildland-urban interface and in at-risk areas across the broader landscape.
- Active forestland management, including thinning that produces commercial or pre-commercial products, biomass removal and utilization, prescribed fire and other fuels reduction activities to simultaneously meet long-term ecological, economic, and community objectives.

The National Fire Plan identifies a three-tiered organizational structure including 1) the local level, 2) state/regional and tribal level, and 3) the national level. This plan adheres to the collaboration and outcomes consistent with a local level plan. Local level collaboration involves

participants with direct responsibility for management decisions affecting public and/or private land and resources, fire protection responsibilities, or good working knowledge and interest in local resources. Participants in this planning process include local representatives from federal and state agencies, local governments, landowners and other stakeholders, and community-based groups with a demonstrated commitment to achieving the strategy's four goals. Existing resource advisory committees, watershed councils, or other collaborative entities may serve to achieve coordination at this level. Local involvement, expected to be broadly represented, is a primary source of planning, project prioritization, and resource allocation and coordination. The role of the private citizen should not be underestimated as all phases of risk assessment, mitigation, and project implementation are greatly facilitated by their involvement.

National Association of State Foresters

This plan is written with the intent to provide decision makers (elected and appointed officials) the information they need to prioritize projects across the entire county. These decisions may be made by the Board of Commissioners or other elected body or through the recommendations of ad hoc groups tasked with making prioritized lists of communities at risk as well as project areas. It is not necessary to rank communities or projects numerically, although that is one approach. Rather, it may be possible to rank them categorically (high priority set, medium priority set, and so forth) and still accomplish the goals and objectives set forth in this planning document.

The following was prepared by the National Association of State Foresters (NASF), June 27, 2003, and is included here as a reference for the identification and prioritizing of treatments between communities.

Purpose: To provide national, uniform guidance for implementing the provisions of the “Collaborative Fuels Treatment” Memorandum of Understanding (MOU), and to satisfy the requirements of Task e, Goal 4 of the Implementation Plan for the 10-Year Comprehensive Strategy.

Intent: The intent is to establish broad, nationally compatible standards for identifying and prioritizing communities at risk, while allowing for maximum flexibility at the state and regional level. Three basic premises are:

- Include all lands and all ownerships.
- Use a collaborative process that is consistent with the complexity of land ownership patterns, resource management issues, and the number of interested stakeholders.
- Set priorities by evaluating projects, not by ranking communities.

The National Association of State Foresters (NASF) set forth the following guidelines in the Final Draft Concept Paper; Communities at Risk, December 2, 2002.

Task: Develop a definition for “communities at risk” and a process for prioritizing them, per the Implementation Plan for the 10-Year Comprehensive Strategy (Goal 4.e.). In addition, this definition will form the foundation for the NASF commitment to annually identify priority fuels reduction and ecosystem restoration projects in the proposed MOU with the federal agencies (section C.2 (b)).

Conceptual Approach

1. NASF fully supports the definition of the Wildland Urban Interface (WUI) previously published in the Federal Register. Further, proximity to federal lands should not be a

consideration. The WUI is a set of conditions that exists on, or near, areas of wildland fuels nationwide, regardless of land ownership.

2. Communities at risk (or, alternately, landscapes of similar risk) should be identified on a state-by-state basis with the involvement of all agencies with wildland fire protection responsibilities: state, local, tribal, and federal.
3. It is neither reasonable nor feasible to attempt to prioritize communities on a rank order basis. Rather, communities (or landscapes) should be sorted into three, broad categories or zones of risk: high, medium, and low. Each state, in collaboration with its local partners, will develop the specific criteria it will use to sort communities or landscapes into the three categories. NASF recommends using the publication “Wildland/Urban Interface Fire Hazard Assessment Methodology” developed by the National Wildland/Urban Interface Fire Protection Program (circa 1998) as a reference guide. (This program, which has since evolved into the Firewise Program, is under the oversight of the National Wildfire Coordinating Group (NWCG)). At a minimum, states should consider the following factors when assessing the relative degree of exposure each community (landscape) faces.
 - **Risk:** Using historic fire occurrence records and other factors, assess the anticipated probability of a wildfire ignition.
 - **Hazard:** Assess the fuel conditions surrounding the community using a methodology such as fire condition class, or [other] process.
 - **Values Protected:** Evaluate the human values associated with the community or landscape, such as homes, businesses, and community infrastructure (e.g. water systems, utilities, transportation systems, critical care facilities, schools, manufacturing and industrial sites, and high value commercial timber lands).
 - **Protection Capabilities:** Assess the wildland fire protection capabilities of the agencies and local fire departments with jurisdiction.
4. Prioritize by project not by community. Annually prioritize projects within each state using the collaborative process defined in the national, interagency MOUs, “For the Development of a Collaborative Fuels Treatment Program.” Assign the highest priorities to projects that will provide the greatest benefits either on the landscape or to communities. Attempt to properly sequence treatments on the landscape by working first around and within communities, and then moving further out into the surrounding landscape. This will require:
 - First, focusing on the zone of highest overall risk but considering projects in all zones. Identify a set of projects that will effectively reduce the level of risk to communities within the zone.
 - Second, determining the community’s willingness and readiness to actively participate in an identified project.
 - Third, determining the willingness and ability of the owner of the surrounding land to undertake, and maintain, a complementary project.
 - Last, setting priorities by looking for projects that best meet the three criteria above. It is important to note that projects with the greatest potential to reduce risk to communities and the landscape may not be those in the highest risk zone, particularly if either the community or the surrounding landowner is not willing or able to actively participate.

5. It is important, and necessary, that we be able to demonstrate a local level of accomplishment that justifies to Congress the value of continuing the current level of appropriations for the National Fire Plan. Although appealing to appropriators and others, it is not likely that many communities (if any) will ever be removed from the list of communities at risk. Even after treatment, all communities will remain at some, albeit reduced, level of risk. However, by using a science-based system for measuring relative risk, we can likely show that, after treatment (or a series of treatments); communities are at “*reduced risk.*”

Using the concept described above, the NASF believes it is possible to accurately assess the relative risk that communities face from wildland fire. Recognizing that the condition of the vegetation (fuel) on the landscape is dynamic, assessments and re-assessments must be done on a state-by-state basis, using a process that allows for the integration of local knowledge, conditions, and circumstances, with science-based national guidelines. We must remember that it is not only important to lower the risk to communities, but once the risk has been reduced, to maintain those communities at a reduced risk.

Further, it is essential that both the assessment process and the prioritization of projects be done collaboratively, with all local agencies with fire protection jurisdiction taking an active role.

Healthy Forests Restoration Act

On December 3, 2003, President Bush signed into law the Healthy Forests Restoration Act of 2003 to reduce the threat of destructive wildfires while upholding environmental standards and encouraging early public input during review and planning processes. The legislation is based on sound science and helps further the President's Healthy Forests Initiative pledge to care for America's forests and rangelands, reduce the risk of catastrophic fire to communities, help save the lives of firefighters and citizens, and protect threatened and endangered species.

The Healthy Forests Restoration Act (HFRA) seeks to:

- Strengthens public participation in developing high priority projects;
- Reduces the complexity of environmental analysis allowing federal land agencies to use the best science available to actively manage land under their protection;
- Creates a pre-decisional objections process encouraging early public participation in project planning; and
- Issues clear guidance for court action challenging HFRA projects.

The Stevens County Community Wildfire Protection Plan was developed to adhere to the principles of the HFRA while providing recommendations consistent with the policy document. This should assist the federal land management agencies with implementing wildfire mitigation projects in Stevens County that incorporate public involvement and the input from a wide spectrum of fire and emergency services providers in the region.

Federal Emergency Management Agency Philosophy

Effective November 1, 2004, a hazard mitigation plan approved by the Federal Emergency Management Agency (FEMA) is required for Hazard Mitigation Grant Program (HMGP) and Pre-Disaster Mitigation Program (PDM) eligibility. The HMGP and PDM programs provide funding, through state emergency management agencies, to support local mitigation planning and projects to reduce potential disaster damages.

The local hazard mitigation plan requirements for HMGP and PDM eligibility are based on the Disaster Mitigation Act (DMA) of 2000, which amended the Stafford Disaster Relief Act to promote an integrated, cost effective approach to mitigation. Local hazard mitigation plans must meet the minimum requirements of the Stafford Act-Section 322, as outlined in the criteria contained in 44 CFR Part 201. The plan criteria cover the planning process, risk assessment, mitigation strategy, plan maintenance, and adoption requirements.

FEMA only reviews a local hazard mitigation plan submitted through the appropriate State Hazard Mitigation Officer (SHMO). FEMA reviews the final version of a plan prior to local adoption to determine if the plan meets the criteria, but FEMA will not approve it prior to adoption.

A FEMA designed plan is evaluated on its adherence to a variety of criteria.

- Adoption by the Local Governing Body
- Multi-jurisdictional Plan Adoption
- Multi-jurisdictional Planning Participation
- Documentation of Planning Process
- Identifying Hazards
- Profiling Hazard Events
- Assessing Vulnerability: Identifying Assets
- Assessing Vulnerability: Estimating Potential Losses
- Assessing Vulnerability: Analyzing Development Trends
- Multi-jurisdictional Risk Assessment
- Local Hazard Mitigation Goals
- Identification and Analysis of Mitigation Measures
- Implementation of Mitigation Measures
- Multi-jurisdictional Mitigation Strategy
- Monitoring, Evaluating, and Updating the Plan
- Implementation through Existing Programs
- Continued Public Involvement

Appendix 6

Potential CWPP Project Funding Sources

Assistance to Firefighters Grant

http://www.rkb.mipt.org/contentdetail.cfm?content_id=44122

To provide direct assistance, on a competitive basis, to fire departments of a State or tribal nation for the purpose of protecting the health and safety of the public and firefighting personnel against fire and fire-related hazards.

Buffer Zone Protection Program (BZPP)

http://www.rkb.mipt.org/contentdetail.cfm?content_id=135490

The FY 2006 BZPP provides funds to build capabilities at the state and local levels to prevent and protect against terrorist incidents primarily done through planning and equipment acquisition.

Chemical Sector Buffer Zone Protection Program (Chem-BZPP)

http://www.rkb.mipt.org/contentdetail.cfm?content_id=135466

The Chem-BZPP, provides funds to build capabilities at the State and local levels through planning and equipment acquisition.

Citizen Corps

http://www.rkb.mipt.org/contentdetail.cfm?content_id=56829

The purpose of the Citizen Corps Program is to supplement and assist State and local efforts to expand Citizen Corps. This includes Community Emergency Response Team (CERT) training, establishing Citizen Corps Councils, and supporting oversight and outreach..

Citizen Corps Support Program

http://www.rkb.mipt.org/contentdetail.cfm?content_id=135192

Support the mission to engage everyone in America in hometown security through the establishment and sustainment of Citizen Corps Councils throughout the United States and territories.

Commercial Equipment Direct Assistance Program (CEDAP) FY2006 Description and Application

http://www.rkb.mipt.org/contentdetail.cfm?content_id=83219

To ensure that law enforcement and emergency responder agencies, departments, and task forces can acquire, through direct assistance, the specialized equipment and training they require to meet their homeland security mission.

Community Disaster Loans

http://www.rkb.mipt.org/contentdetail.cfm?content_id=44126

To provide loans subject to Congressional loan authority, to any local government that has suffered substantial loss of tax and other revenue in an area in which the President designates a major disaster exists. The funds can only be used to maintain ...

Disposal of Federal Surplus Real Property

http://www.rkb.mipt.org/contentdetail.cfm?content_id=43990

To dispose of surplus real property by lease, permits, sale, exchange, or donation.

Emergency Management Institute (EMI) Independent Study Program

http://www.rkb.mipt.org/contentdetail.cfm?content_id=44100

To enhance public and selected audience knowledge of emergency management practices among State, local and tribal government managers in response to emergencies and disasters. The program currently consists of 32 courses. They include IS-1, Emergency

Emergency Management Institute (EMI) Resident Educational Program

http://www.rkb.mipt.org/contentdetail.cfm?content_id=44102

To improve emergency management practices among State, local and tribal government managers, and Federal officials as well, in response to emergencies and disasters. Programs embody the Comprehensive Emergency Management System by unifying the

Emergency Management Institute Training Assistance

http://www.rkb.mipt.org/contentdetail.cfm?content_id=44098

To defray travel and per diem expenses of State, local and tribal emergency management personnel who attend training courses conducted by the Emergency Management Institute, at the Emmitsburg, Maryland facility; Bluemont, Virginia facility; and

Fire Management Assistance Grant

http://www.rkb.mipt.org/contentdetail.cfm?content_id=44124

To provide grants to states, Indian tribal governments and local governments for the mitigation, management and control of any fire burning on publicly (nonfederal) or privately owned forest or grassland that threatens such destruction as would

Hazard Mitigation Grant Program

http://www.rkb.mipt.org/contentdetail.cfm?content_id=44130

To provide states and local governments financial assistance to implement measures that will permanently reduce or eliminate future damages and losses from natural hazards through safer building practices and improving existing structures and

Hazardous Materials Planning and Training

http://www.rkb.mipt.org/contentdetail.cfm?content_id=133349

Hazmat Planning and Training grants to state, territory and native American Tribal grantees.

Homeland Defense Equipment Reuse Program - HDER

http://www.rkb.mipt.org/contentdetail.cfm?content_id=83222

The goal of the HDER Program is to provide excess radiological detection instrumentation and other equipment, as well as training and long-term technical support, at no cost to emergency Responder agencies nationwide.

Homeland Security Grant Program (HSGP)

http://www.rkb.mipt.org/contentdetail.cfm?content_id=118605

Through the DHS National Preparedness Directorate, State and local organizations will receive approximately \$2.5 billion in grant funding to build capabilities that enhance homeland security.

Interagency National Fire Plan Community Assistance

www.nwfireplan.gov

This grant provides a collaborative process for awarding funds to hazardous fuels reduction projects on non-federal land in the Wildland-Urban Interface. Eligible projects must be adjacent to Federal Land and identified in a Community Wildfire Protection Plan (CWPP) completed by February 6, 2009. Collaborated CWPP projects must implement fuels treatments in the wildland-urban interface.

National Fire Academy Educational Program/Harvard Fellowship Grant

http://www.rkb.mipt.org/contentdetail.cfm?content_id=133343

Each fellowship enables a senior fire executive to attend and participate in the three-week "Senior Executives in State & Local Government Program" course that is held twice each year at Harvard University.

National Fire Academy Training Assistance

http://www.rkb.mipt.org/contentdetail.cfm?content_id=44104

To provide travel stipends to students attending Academy courses.

Pre-Disaster Mitigation Program

http://www.rkb.mipt.org/contentdetail.cfm?content_id=102626

The PDM program will provide funds to states, territories, Indian tribal governments, and communities for hazard mitigation planning and the implementation of mitigation projects prior to a disaster event.

Rural Fire Assistance (RFA)

http://www.rkb.mipt.org/contentdetail.cfm?content_id=97736

The RFA program provides cost-share grants for equipment, training, and fire prevention and mitigation activities for those rural/Volunteer fire departments (RFDs) that protect rural communities.

Staffing of Adequate Fire and Emergency Response (SAFER) Grant Program

http://www.rkb.mipt.org/contentdetail.cfm?content_id=133340

The purpose of the Staffing for Adequate Fire and Emergency Response (SAFER) grants is to help fire departments increase their cadre of firefighters.

State Fire Assistance Wildland Urban Interface Hazard Mitigation Grants

<http://egov.oregon.gov/ODF/FIRE/grantopps.shtml>

Funds are provided to reduce the threat of fire in the wildland urban interface including hazard mitigation, fuels and risk reduction, and information and education programs for homeowners and communities. This is a competitive grant process among the 17 western states and Pacific Island Territories.

Volunteer Fire Department Assistance

<http://egov.oregon.gov/ODF/FIRE/grantopps.shtml>

Provides financial assistance to volunteer fire departments for organizing, training, and equipping rural fire districts.

Western States Fire Managers Wildland Urban Interface Grant Program

<http://www.oregon.gov/ODF/FIRE/docs/PREV/CriteriaandInstructions.pdf>

The focus of much of this funding is mitigating risk in Wildland Urban Interface (WUI) areas. In the West, the State Fire Assistance (SFA) funding is available and awarded through a competitive process with emphasis on hazard fuel reduction, information and education, and community and homeowner action. This portion of the National Fire Plan was developed to assist interface communities manage the unique hazards they find around them. Long-term solutions to interface challenges require informing and educating people who live in these areas about what they and their local organizations can do to mitigate these hazards.

Wildland-Urban Interface Community and Rural Fire Assistance

http://www.rkb.mipt.org/contentdetail.cfm?content_id=43914

To implement the National Fire Plan and assist communities at risk from catastrophic wildland fires by providing assistance in the following areas: Provide community programs that develop local capability including; assessment and planning.

Appendix 7

Additional Information

Glossary of Terms

Defensible Space - The area within the perimeter of a parcel, development, neighborhood or community where basic wildland fire protection practices and measures are implemented, providing the key point of defense from an approaching wildfire or defense against encroaching wildfires or escaping structures fires. The perimeter as used in this definition is the area encompassing the parcel or parcels proposed for construction and or development, excluding the physical structure itself. The establishment and maintenance of emergency vehicle access, emergency water reserves, street names and building identification, and fuel modification measures characterize the area.

Disturbance - An event which affects the successional development of a plant community (examples: fire, insects, windthrow, and timber harvest).

Diversity - The relative distribution and abundance of different plant and animal communities as well as species within an area.

Exotic/Invasive Plant Species - Plant species that are introduced and not native to the area.

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

Fire Behavior Prediction Model - A set of mathematical equations that can be used to predict certain aspects of fire behavior when provided with an assessment of fuel and environmental conditions.

Fire Danger - A general term used to express an assessment of fixed and variable factors such as fire risk, fuels, weather, and topography which influence whether fires will start, spread, and do damage; also the degree of control difficulty to be expected.

Fire Exclusion - The disruption of a characteristic pattern of fire intensity and occurrence (primarily through fire suppression).

Fire Intensity Level - The rate of heat release (BTU/second) per unit of fire front. Four foot flame lengths or less are generally associated with low intensity burns and four to six foot flame lengths generally correspond to “moderate” intensity fire behavior. High intensity flame lengths are usually greater than eight feet and pose multiple control problems.

Fire Prone Landscapes – The expression of an area’s propensity to burn in a wildfire based on common denominators such as plant cover type, canopy closure, aspect, slope, road density, stream density, wind patterns, position on the hillside, and other factors.

Fireline - A loose term for any cleared strip used in control of a fire. That portion of a control line from which flammable materials have been removed by scraping or digging down to the mineral soil.

Fire Management - The integration of fire protection, prescribed fire and fire ecology into land use planning, administration, decision making, and other land management activities.

Fire Prevention - An active program in conjunction with other agencies to protect human life, prevent modification of the ecosystem by human-caused wildfires, and prevent damage to cultural resources or physical facilities. Activities directed at reducing fire occurrence, including public education, law enforcement, personal contact, and reduction of fire risks and hazards.

Fire Regime - The fire pattern across the landscape, characterized by occurrence interval and relative intensity. Fire regimes result from a unique combination of climate and vegetation. Fire regimes exist on a continuum from short-interval, low-intensity (stand maintenance) fires to long-interval, high-intensity (stand replacement) fires.

Fire Return Interval - The number of years between two successive fires documented in a designated area.

Fire Risk - The potential that a wildfire will start and spread as determined by the presence and activities of causative agents.

Fire Severity - The effects of fire on resources displayed in terms of benefit or loss.

Fire Use – The management of naturally ignited fires to accomplish specific prestated resource management objectives in predefined geographic areas.

Flashy Fuel - Quick drying twigs, needles, and grasses that are easily ignited and burn rapidly.

Fuel - The materials which are burned in a fire: duff, litter, grass, dead branchwood, snags, logs, etc.

Fuel Break - A natural or manmade change in fuel characteristics which affects fire behavior so that fires burning into them can be more readily controlled.

Fuel Loading - Amount of dead and live fuel present on a particular site at a given time; the percentage of it available for combustion changes with the season.

Fuel Model - Characterization of the different types of wildland fuels (trees, brush, grass, etc.) and their arrangement, used to predict fire behavior.

Fuel Type - An identifiable association of fuel elements of distinctive species; form, size, arrangement, or other characteristics, that will cause a predictable rate of fire spread or difficulty of control, under specified weather conditions.

Fuels Management - Manipulation or reduction of fuels to meet protection and management objectives, while preserving and enhancing environmental quality.

Habitat - A place that provides seasonal or year-round food, water, shelter, and other environmental conditions for an organism, community, or population of plants or animals.

Habitat Type - A group of habitats that have strongly marked and readily defined similarities that when defined by its predominant or indicator species incites a general description of the area; *e.g. a ponderosa pine habitat type*.

Heavy Fuels - Fuels of a large diameter, such as snags, logs, and large limbwood, which ignite and are consumed more slowly than flashy fuels.

Human-Caused Fires - Refers to fires ignited accidentally (from campfires, equipment, debris burning, or smoking) and by arsonists; does not include fires ignited intentionally by fire management personnel to fulfill approved, documented management objectives (prescribed fires).

Intensity - The rate of heat energy released during combustion per unit length of fire edge.

Inversion - Atmospheric condition in which temperature increases with altitude.

Ladder Fuels - Fuels which provide vertical continuity between strata, thereby allowing fire to carry from surface fuels into the crowns of trees with relative ease. They help initiate and assure the continuation of crowning.

Landsat Imagery - Land remote sensing, the collection of data which can be processed into imagery of surface features of the Earth from an unclassified satellite or satellites.

Landscape - All the natural features such as grasslands, hills, forest, and water, which distinguish one part of the earth's surface from another part; usually that portion of land which the eye can comprehend in a single view, including all its natural characteristics.

Lethal - Relating to or causing death.

Lethal Fires - A descriptor of fire response and effect in forested ecosystems of high-severity or severe fire that burns through the overstory and understory. These fires typically consume large woody surface fuels and may consume the entire duff layer, essentially destroying the stand.

Litter - The top layer of the forest floor composed of loose debris, including dead sticks, branches, twigs, and recently fallen leaves or needles, little altered in structure by decomposition.

Mitigation - Actions to avoid, minimize, reduce, eliminate, replace, or rectify the impact of a management practice.

Monitoring Team - Two or more individuals sent to a fire to observe, measure, and report its behavior, its effect on resources, and its adherence to or deviation from its prescription.

Native - Indigenous; living naturally within a given area.

Natural Ignition - A wildland fire ignited by a natural event such as lightning or volcanoes.

Noxious Weeds - Rapidly spreading plants that have been designated "noxious" by law which can cause a variety of major ecological impacts to both agricultural and wildlands.

Planned Ignition - A wildland fire ignited by management actions to meet specific objectives.

Prescribed Fire - Any fire ignited by management actions to meet specific objectives. A written, approved prescribed fire plan must exist, and NEPA requirements must be met, prior to ignition.

Prescription - A set of measurable criteria that guides the selection of appropriate management strategies and actions. Prescription criteria may include safety, economic, public health, environmental, geographic, administrative, social, or legal considerations.

Seral - Refers to the stages that plant communities go through during succession. Developmental stages have characteristic structure and plant species composition.

Stand Replacing Fire - A fire that kills most or all of a stand.

Surface Fire - Fire which moves through duff, litter, woody dead and down and standing shrubs, as opposed to a crown fire.

Watershed - The region draining into a river, river system, or body of water.

Wetline - Denotes a condition where the fireline has been established by wetting down the vegetation.

Wildland Fire - Any non-structure fire, other than prescribed fire, that occurs in the wildland.

Wildland Fire Use - The management of naturally ignited wildland fires to accomplish specific pre-stated resource management objectives in predefined geographic areas outlined in FMP's. Operational management is described in the WFIP. Wildland fire use is not to be confused with "fire use," which is a broader term encompassing more than just wildland fires.

Wildland Fire Use for Resource Benefit (WFURB) - A wildland fire ignited by a natural process (lightning), under specific conditions, relating to an acceptable range of fire behavior and managed to achieve specific resource objectives.

Wildland-Urban Interface (WUI) - For purposes of this plan, the wildland-urban interface is located defined in Section 4.5. In general, it is the area where structures and other human development meet or intermingle with undeveloped wildland.

General Mitigation Strategies

There are many actions that will help improve safety in a particular area; there are also many mitigation activities that can apply to all residents and all fuel types. General mitigation activities that apply to all of Stevens County are discussed below while area-specific mitigation activities are discussed within the strategic planning area assessments.

Prevention. The safest, easiest, and most economical way to mitigate unwanted fires is to stop them before they start. Generally, prevention actions attempt to prevent human-caused fires. Campaigns designed to reduce the number and sources of ignitions can be quite effective and can take many forms.

Limiting Use. The issues associated with debris burning during certain times of the year are difficult to negotiate and enforce. However, there are significant risks associated with the use of fire adjacent to expanses of flammable vegetation under certain scenarios. Fire departments typically observe the State of Washington closed fire season between July 1st to September 30th. During this time, an individual seeking to conduct an open burn of any type shall obtain a permit to prescribe the conditions under which the burn can be conducted and the resources that need to be on hand to suppress the fire. Although this is a statewide regulation, compliance and enforcement has been variable between fire districts.

Defensible Space. Effective mitigation strategies begin with public awareness campaigns designed to educate homeowners of the risks associated with living in a flammable environment. Residents of Stevens County must be made aware that home defensibility starts with the homeowner. Once a fire has started and is moving toward a structure, the probability of that structure surviving is largely dependent on the structural and landscaping characteristics of the building. The Firewise Communities USA program is an excellent tool for educating homeowners on the steps to take in order to create an effective defensible space. Residents of Stevens County should be encouraged to work with local fire departments and fire management agencies within the county to complete individual home site evaluations. Home defensibility steps should be enacted based on the results of these evaluations. Beyond the homes, forest management efforts must be considered to slow the approach of a fire that threatens a community.

Evacuation. Development of community evacuation plans is necessary and critical to assure an orderly evacuation in the event of a threatening wildland fire. Designation and posting of escape routes would reduce chaos and escape times for fleeing residents. Community safety zones

should also be established in the event safe evacuation is impossible and ‘sheltering in place’ becomes the better option.

Access. Also of vital importance is the accessibility of homes to emergency apparatus. The fate of a home will often be determined by homeowner actions prior to the event. A few simple guidelines such as widening or pruning along driveways and creating a turnaround area for large vehicles, can greatly enhance home survivability.

Facility Maintenance. Recreational facilities near communities or in the surrounding forests such as parks or natural areas should be kept clean and maintained. In order to mitigate the risk of an escaped campfire, escape-resistant fire rings and barbeque pits should be installed and maintained. In some cases, restricting campfires during dry periods may be necessary. Surface fuel accumulations in nearby forests can also be kept to a minimum by periodically conducting pre-commercial thinning, pruning and limbing, and possibly controlled burns.

Fire District Response. Once a fire has started, how much and how large it burns is often dependent on the availability of suppression resources. In most cases, rural fire departments are the first to respond and have the best opportunity to halt the spread of a wildland fire. For many districts, the ability to reach these suppression objectives is largely dependent on the availability of functional resources and trained individuals. Increasing the capacity of departments through funding and equipment acquisition can improve response times and subsequently reduce the potential for resource loss.

Development Standards. County, city, and even fire district policies can be updated or revised to provide for more fire conscious techniques such as using fire resistant construction materials; improving roads, and establishing permanent water resources.

Other Mitigation. Other actions to reduce fire hazards are thinning and pruning timbered areas, creating a fire resistant buffer along roads and power line corridors, and strictly enforcing fire-use regulations. Ensuring that areas beneath power lines have been cleared of potential high risk fuels and making sure that the buffer between the surrounding lands is wide enough to adequately protect the poles as well as the lines is imperative.

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