

# Franklin County, Washington

## Community Wildfire Protection Plan

### Appendices

Approved by the

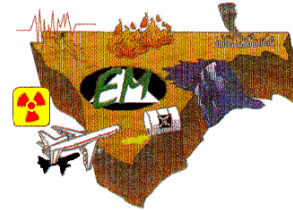
Franklin County Commissioners 2014



*Juniper Dunes Wilderness Area*

## 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.



F.C.F.P.D.s #1, #2,  
#4, & #5



Pasco Fire Department



Franklin County  
Weed Board



To obtain copies of this plan contact:

**Franklin County Emergency Management**

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## Appendix 1

### Mapping Products

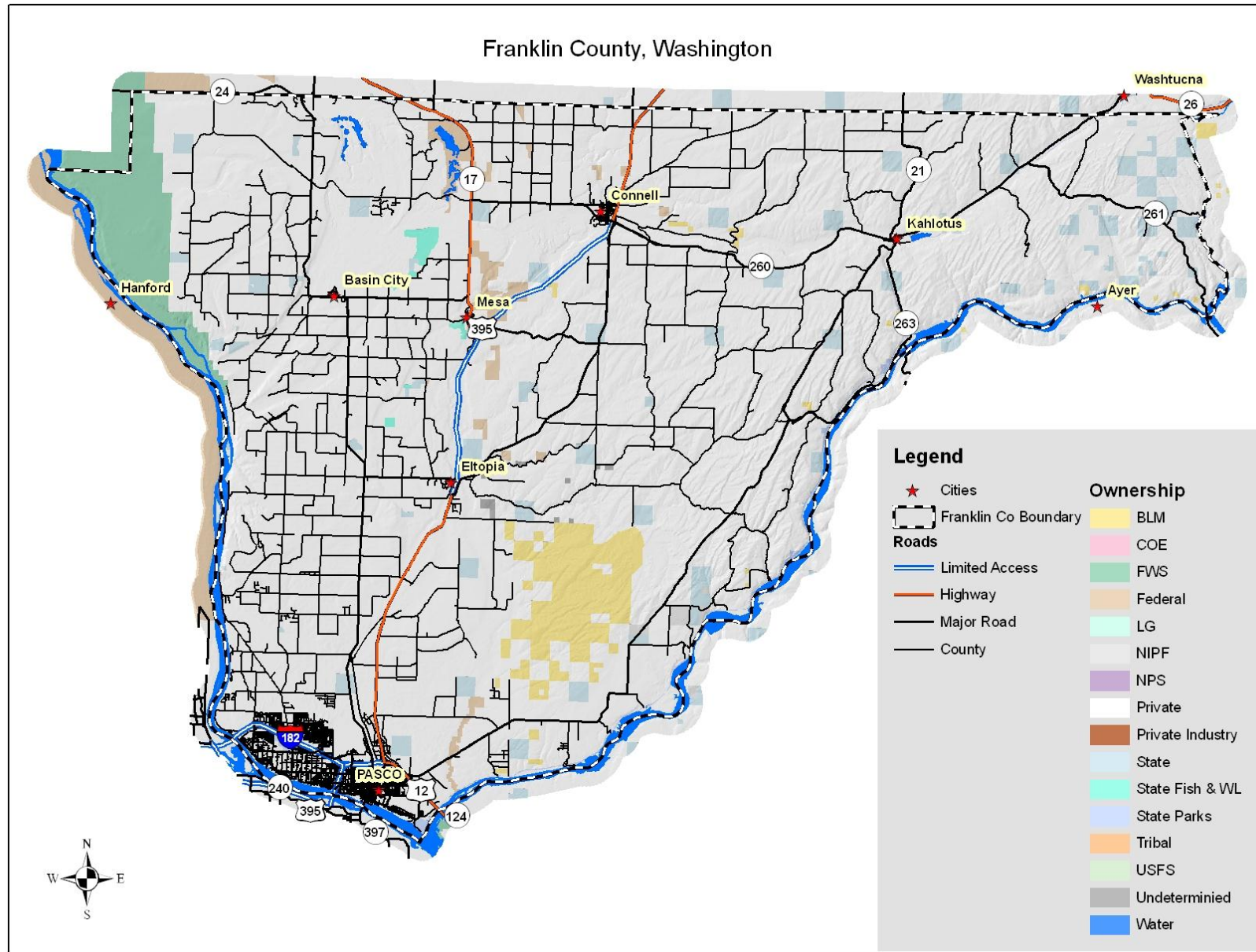
#### Northwest Management, Inc.

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P.O. Box 9748  
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208-883-4488  
[www.Consulting-Foresters.com](http://www.Consulting-Foresters.com)

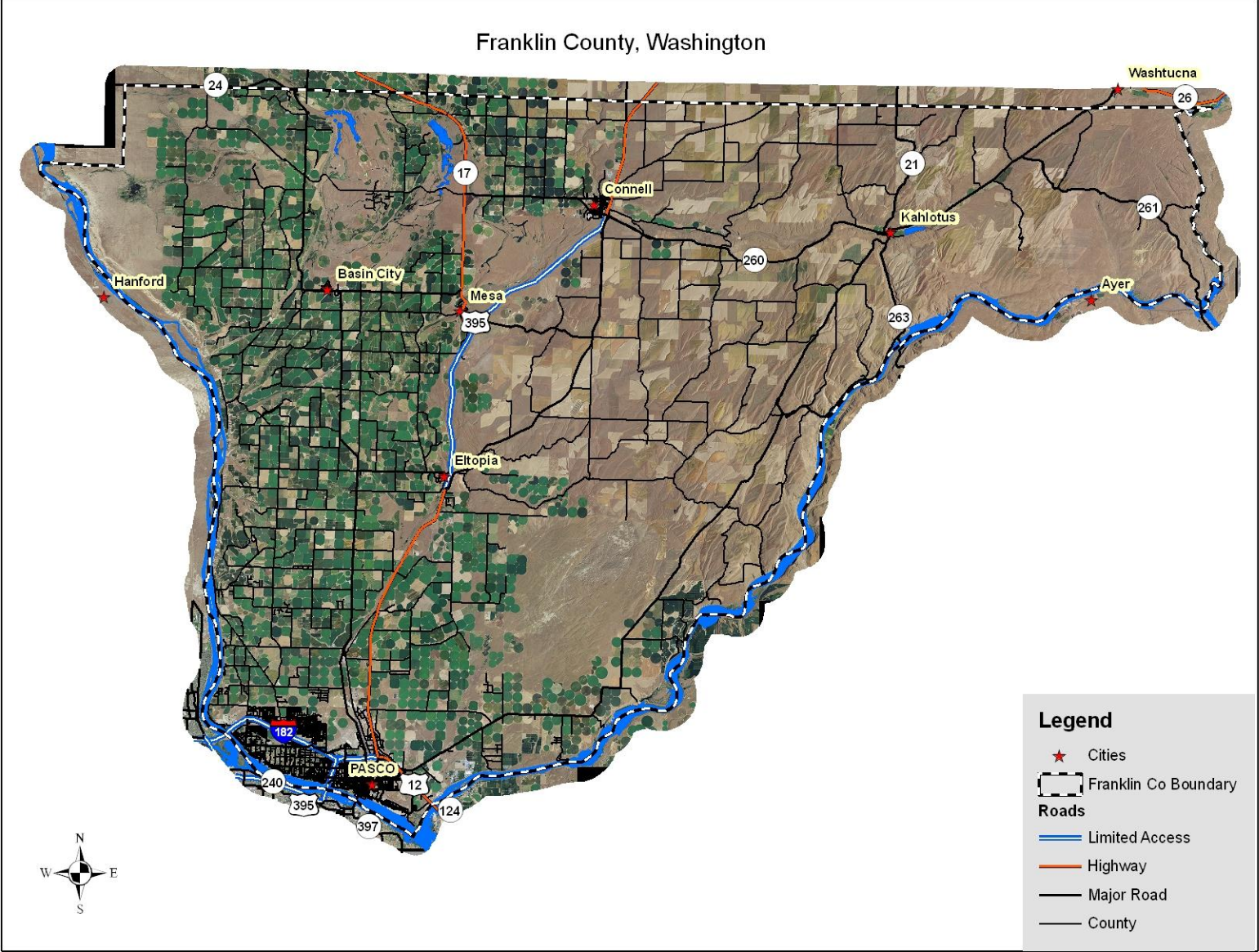
The information on the following maps was derived from digital databases held by Northwest Management, Inc. Care was taken in the creation of these maps, but all maps are provided “as is” with no warranty or guarantees. Northwest Management, Inc. cannot accept any responsibility for errors, omissions, 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.



# Land Ownership Map

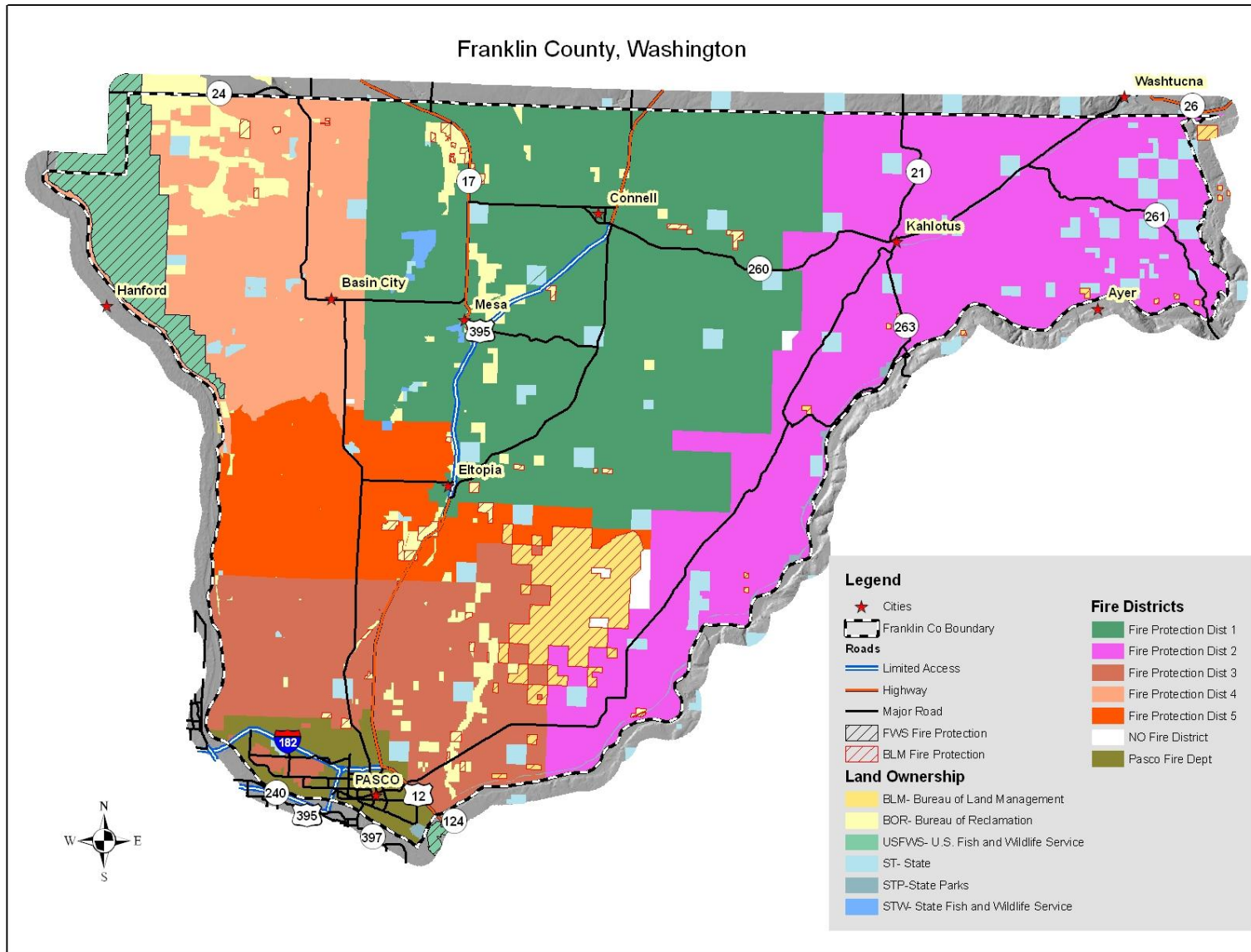


Aerial Imagery



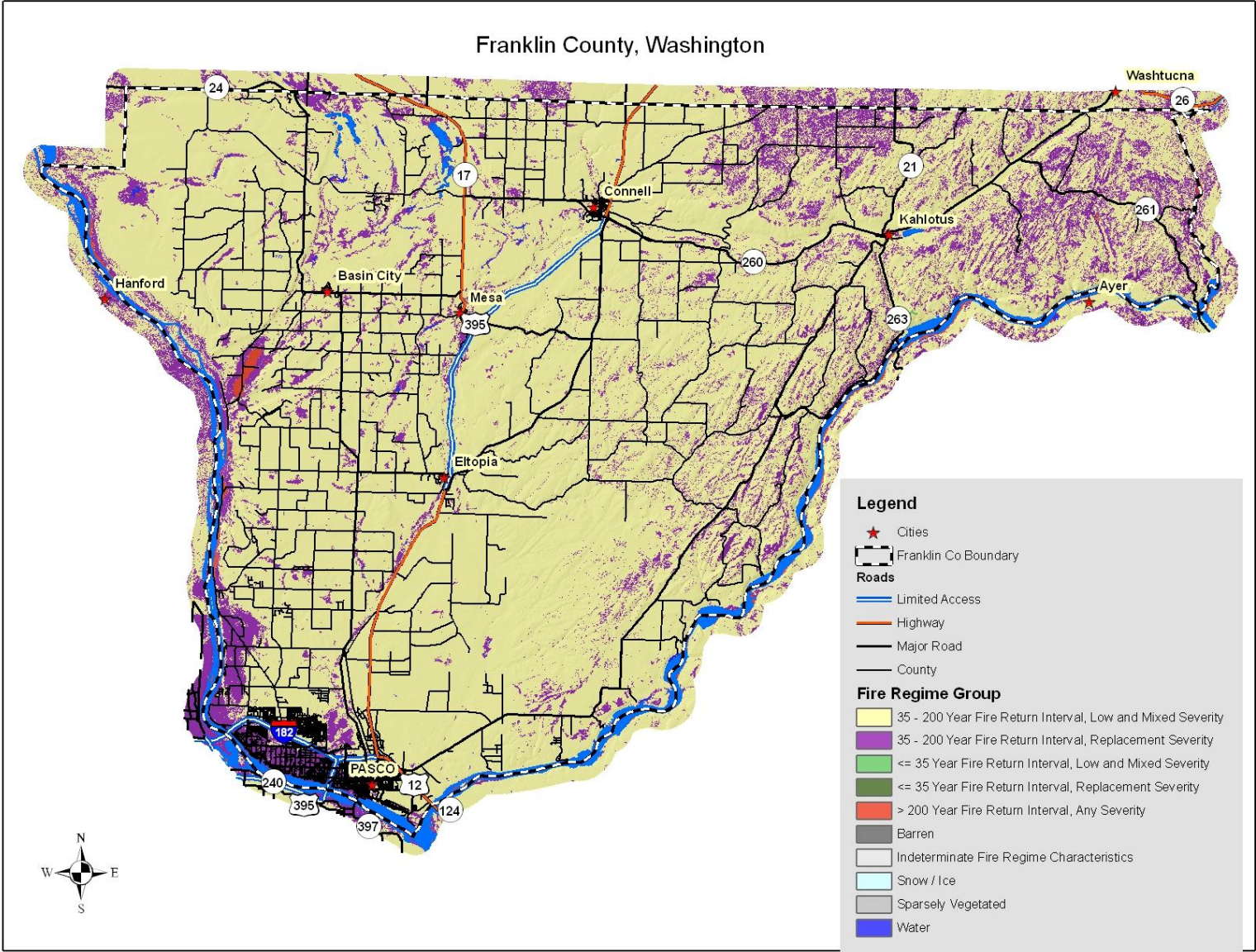


# Fire Protection Boundary Map



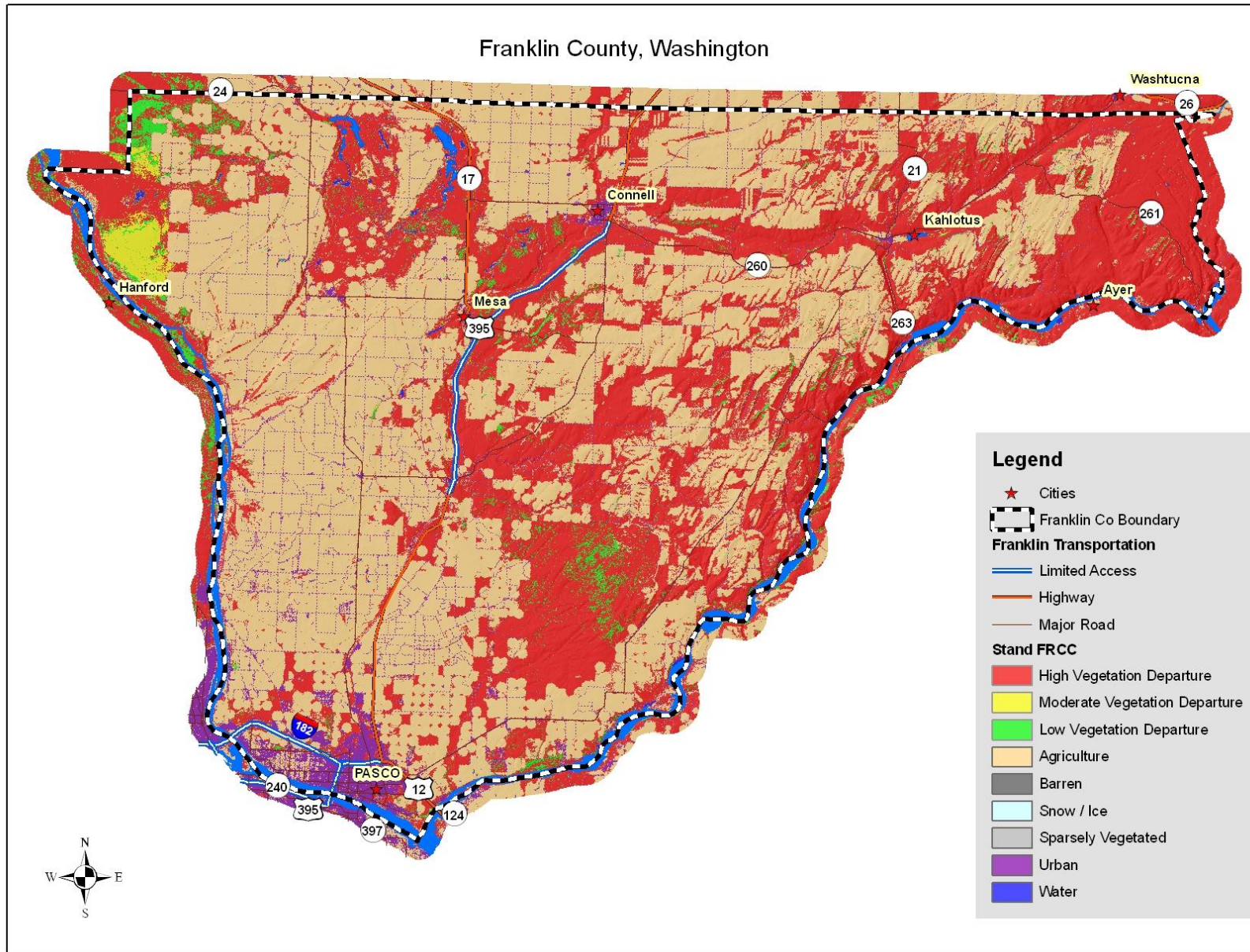


# Historic Fire Regime Map

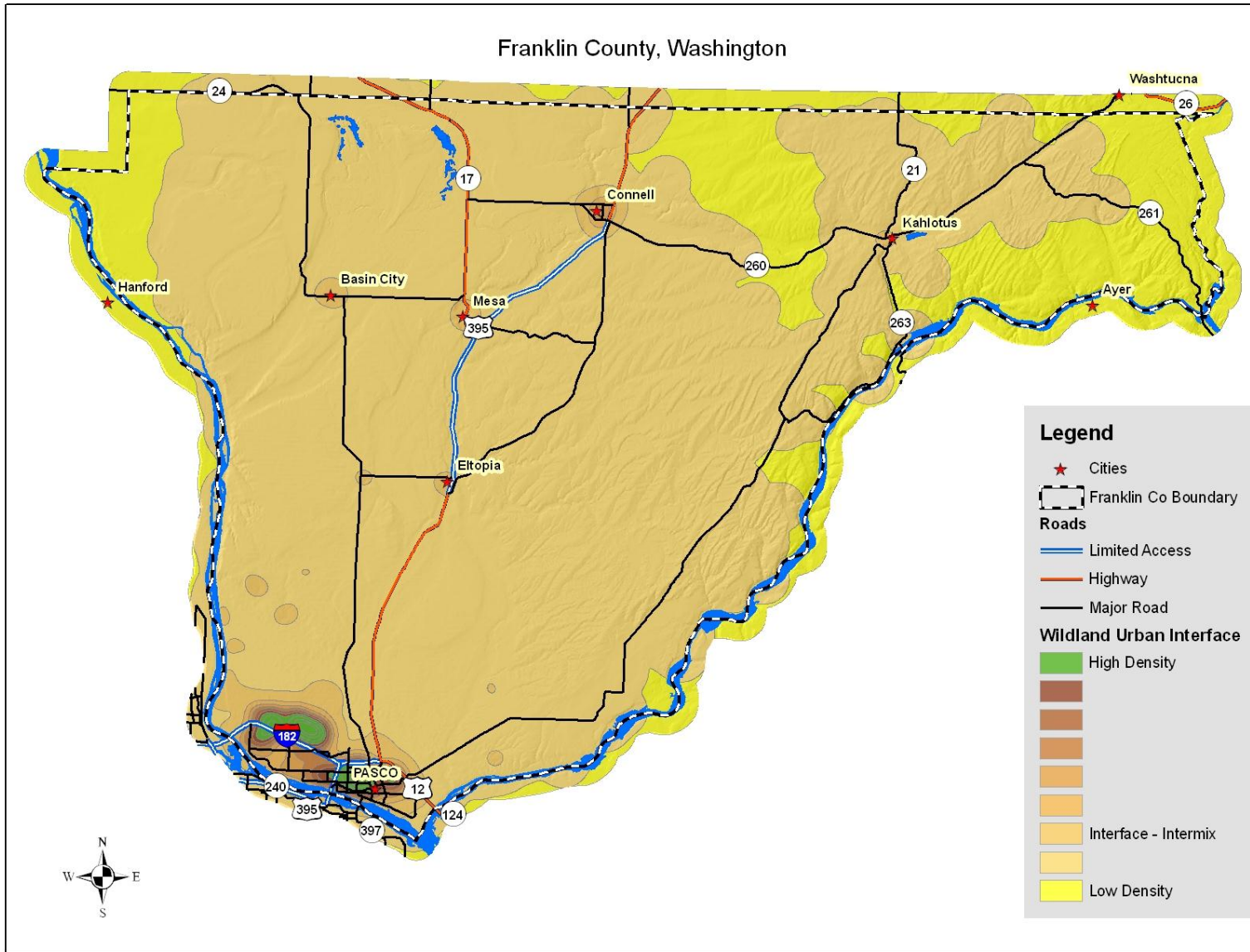




# Vegetation Condition Class Map

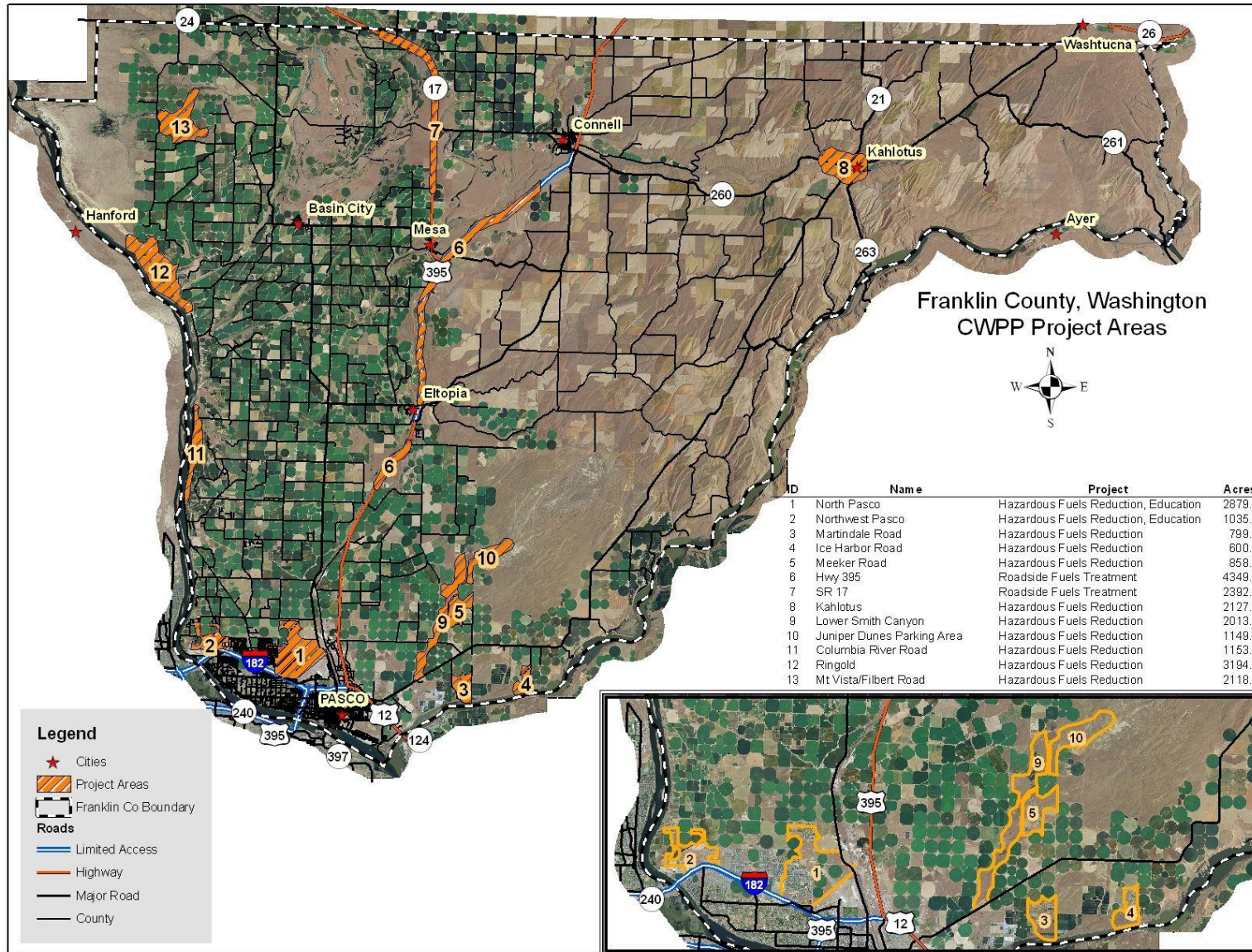


# Wildland Urban Interface Map



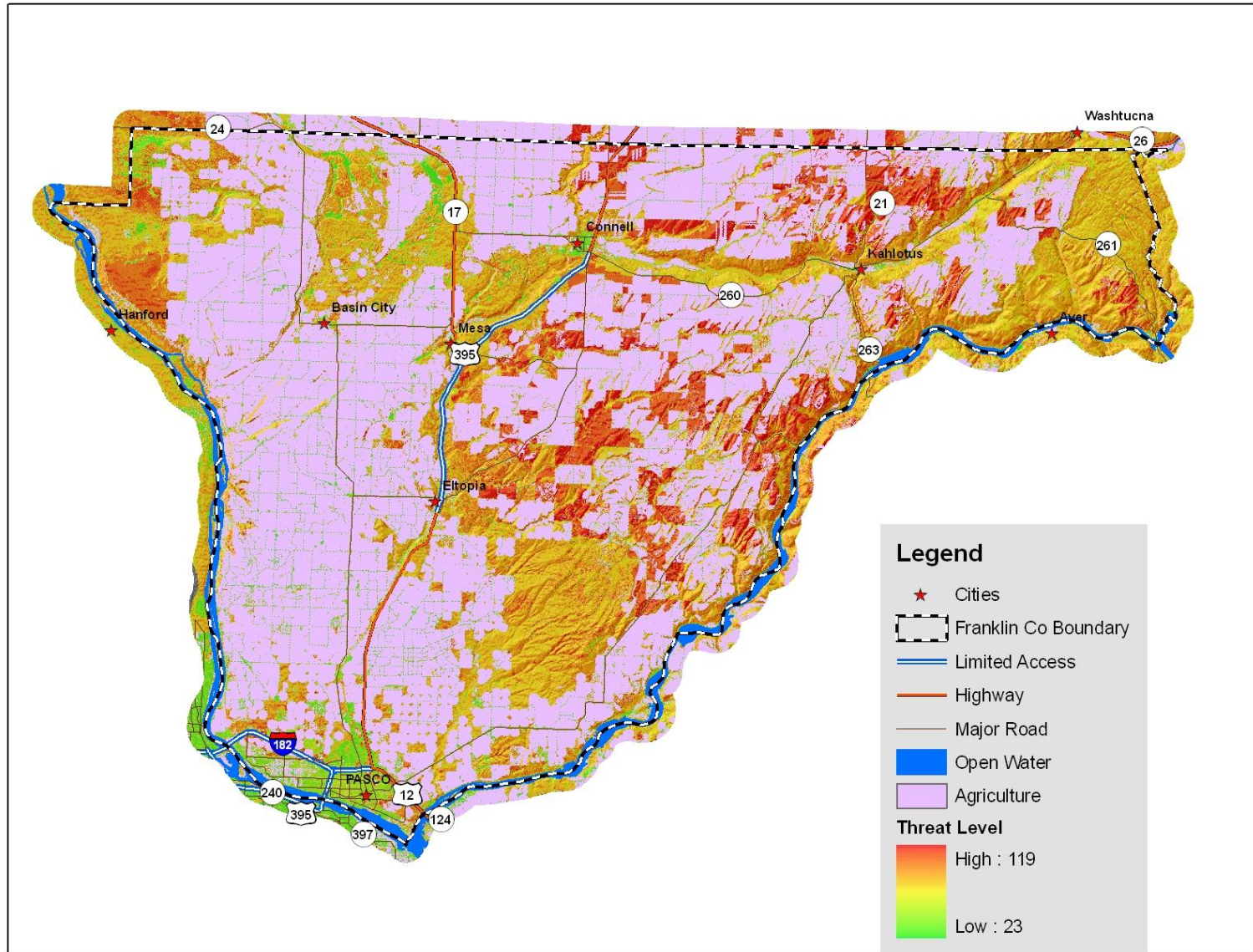


# Proposed Treatment Area Map





# 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

#### May 2nd, 2013 – Connell Fire Station

##### Attendance:

Richard Parrish, BLM Spokane District	Marvin Leonard, Kennewick Fire
Bob Gear, Pasco F.D.	Tom Hughes, Franklin Co. F.P.D. 3
Chris Schulte, North end of County	Michael S. Lesky, U.S. Bureau of Reclamation
Bryan Thornhill, Franklin Co. Emergency Management	Tera King, Northwest Management, Inc.
Jacob Gear, Fish & Wildlife Service	Vaiden Bloch, Northwest Management
Les Litzenberger, Franklin Co. F.P.D. 3	Brad Tucker, Northwest Management, Inc.

##### Introduction:

Richard Parrish introduced the project and the BLM's hope that the committee will roll the Risk Assessment into a CWPP. Individuals introduced themselves. NMI passed around handouts.

##### Agenda Item #1 – NMI Presentation:

Brad gave a brief background of the process and explained the purpose of the Risk Assessment. Richard and Brad explained the benefits for the committee to roll the process into a Community Wildfire Protection Plan. Brad made a general request for committee members to send NMI relevant data (GIS, projects, plans, fire history, etc.)

##### Agenda Item #2 – Map Products:

Brad went over the preliminary maps and asked that the committee review them for accuracy and to draw potential projects/high risk areas. Brad also briefly touched on field assessments, explaining that NMI will lead a team into the field to verify map outputs and to become familiar with Franklin Co.

##### Agenda Item #3 – Immediate Concerns:

The committee discussed current issues some of which include; access, CRP, what fuel model Russian Olive should be in, communications in northeast portion of County, contact weed board about spraying disc lines, excessive tumbleweed buildup, and a possible free slash disposal day.

##### Agenda Item #4 – Public Involvement:

NMI will be responsible with providing press releases to the necessary media outlets throughout the planning process. NMI will also schedule and facilitate public meetings near the end of the project to acquire information and comments from the public. There will also be a period of time that the Final Draft will be available for the public to review and provide comments on.

##### Agenda Item #5 – Meeting Schedule:

Brad advised the committee on a rough timeline for the project.

1. Next meeting will be held on June 6<sup>th</sup>, 10 am, Connell F.D.

2. Field assessments tentatively in July or August.
3. Public meetings and committee meeting in October.
4. First draft in November with the public review in mid-late November.
5. Final draft ready for committee review December followed by County Approval.

Other Stuff:

Richard emphasized the BLM's wish that the committee pursue the development of a CWPP. The committee asked that NMI provide a quote to write the CWPP.

Adjournment:

The Franklin County Wildfire Risk Assessment steering committee meeting was adjourned at 11:30 a.m. The next meeting will be held June 6<sup>th</sup> at 10:00 am at the Connell Fire Department located at 605 S Columbia, Connell.

**[Remainder of page intentionally left blank.]**



## June 6th, 2013 – Connell Fire Station

### Attendance:

Richard Parrish, BLM Spokane District	Eric Mauseth, Franklin Fire #1
Todd Harris, Franklin County Weed Board	Brandon Lewis, US Fish & Wildlife Service
Chris Schulte, North end of County	Jonathan Brooks, U.S. Bureau of Reclamation
Dennis Strange, BLM Spokane District	Vic Reeve, Franklin County Weed Board
Jacob Gear, U.S. Fish & Wildlife Service	Brad Tucker, Northwest Management, Inc.
Les Litzenberger, Franklin Co. F.P.D. 3	

### Agenda Item #1 - CWPP Decision?:

Brad asked the committee if they had determined whether they found funding to pursue a Community Wildfire Protection Plan. There has not been a decision made as the committee is still looking for funding sources and unsure if pursuing the CWPP is worth the effort.

It should be known that the Wildfire Risk Assessment would satisfy about 80% of a CWPP. However, if the committee decides to wait on completing the CWPP, they will have to go through the public meetings, public review, and collect signatures again.

### Agenda Item #2 – Mission Statement:

NMI provided some examples of Mission Statements and the committee developed a draft statement which NMI will email to the entire committee for review.

### Agenda Item #3 – Goals Statements:

NMI provided some examples of Goals Statements and the committee developed draft goals which NMI will email to the entire committee for review.

### Agenda Item #4 – Fire District Surveys:

NMI passed out surveys that will assist each district and agency within Franklin Co. (who has firefighting responsibilities) summarize the resources, needs, wishes, etc. of each. NMI will send the surveys out to each district and agency electronically.

### Agenda Item #5 – Fire History:

NMI expressed the need for assistance with compiling Franklin County’s fire history. The Fire Districts were asked to provide a fire history (acres, year, cause, location) for at least the past 10 years. The fire history is important because it shows how significant / frequent of a risk wildland fires are in Franklin County.

### Agenda Item #6 – Wildland Urban Interface WUI:

NMI explained that identifying the WUI will assist in planning mitigation projects. When applying for grants, the application often asks if the project is within the WUI. The current WUI map that NMI has created for Franklin County was based on population density. The committee asked that NMI create a map that includes the entire County for the committee to review. NMI will attempt to send this new WUI map to the committee via email prior to the next meeting.

### Agenda Item #7 – Meeting Schedule:

The next meeting will be held on July 11<sup>th</sup> at 10:00 am, at the Connell Fire Station

## July 11th, 2013 – Connell Fire Station

### Attendance:

Richard Parrish, BLM Spokane District	Les Litzenberger, Franklin Co. F.P.D. 3
Jacque Cook, Franklin County Emergency Management	Jonathan Brooks, U.S. Bureau of Reclamation
Chris Schulte, North end of County	Brad Tucker, Northwest Management, Inc.
Jacob Gear, U.S. Fish & Wildlife Service	

### Agenda Item #1 – Old Business:

Brad asked the committee if they had determined whether they found funding to pursue a Community Wildfire Protection Plan. There has not been a decision made as the committee is still looking for funding sources and unsure if pursuing the CWPP is worth the effort.

It should be known that the BLM has set aside funding if the County decides to pursue the CWPP and can verbally commit prior to the end of July.

Brad reminded the Fire Districts that they need to provide NMI with the Fire District Surveys.

The group reviewed the Mission & Goals Statements and WUI map that were discussed at the previous meeting and subsequently revised.

### Agenda Item #2 – Map Presentation:

NMI provided the committee draft maps. These included; Rate of Spread, Wildfire Intensity, Fire Regime Condition Class, Fire Regime Group, Wildland Urban Interface. A draft Relative Threat Level map was also provided and will be discussed at the next meeting. These maps assist the group in determining areas that could require fuel reduction work projects and/or other types of projects.

### Agenda Item #3 – Identify Project Locations:

The group used their knowledge of the County, as well as the maps, to provide some specific areas that will be visited during field assessments. These site visits are used to verify what the maps are showing and to determine what type of project is warranted in each area.

### Agenda Item #4 – Meeting Schedule:

The next meeting will be held on August 8<sup>th</sup> at 10:00 am, at the Connell Fire Station

## August 8th, 2013 – Connell Fire Station

### Attendance:

Sean Davis, Franklin County Emergency Management	Les Litzenberger, Franklin Co. F.P.D. 3
Jacque Cook, Franklin County Emergency Management	Jonathan Brooks, U.S. Bureau of Reclamation
Greg Bjornstrom, Washington Department of Fish & Wildlife	Mike Lesky, U.S. Bureau of Reclamation
Phillip Buser, Washington Department of Fish & Wildlife	Vaiden Bloch, Northwest Management, Inc.
Dave Hare, Pasco Fire Department	Brad Tucker, Northwest Management, Inc.
Thomas Skinner, U.S. Fish & Wildlife Service	

### Agenda Item #1 – Old Business:

Brad asked the committee if they had determined whether they found funding to pursue a Community Wildfire Protection Plan. The committee had found funding to pursue the CWPP and asked Northwest Management to send Franklin Co. Emergency Management a contract.

Brad reminded the Fire Districts that they need to provide NMI with the Fire District Surveys and Resource Lists.

Northwest Management briefly talked about the Field Assessments. The field assessments will be used to verify if the maps being developed by Northwest Management (i.e. Rate of Spread, Relative Threat Level, etc.) are showing accurate information. These field assessments are also used to identify potential project areas so that when the document is completed the Committee has some areas to focus when the County receives grant funding. The assessments are tentatively scheduled to occur for the first week in October and anyone is welcome to join the assessment crew. We will discuss this more at the September meeting.

### Agenda Item #2 – Map Presentation:

NMI provided the committee a draft Relative Threat Level map. NMI gave a brief powerpoint presentation which explained how this map was created. There are several maps that go into making the Relative Threat Level map. Each map has categories that are weighted. For example, using the precipitation map, the drier portions of the County are weighted heavier than portions of the County that may see more precipitation. We do this for Slope, Aspect, Population Density, Rate of Spread, Wildfire Intensity, and Fuel Type. So essentially each pixel on every map has a designated weight, and then we stack the maps onto each other, add each stack of pixels together to show the accumulated weight on the Relative Threat Level map. We can adjust how heavy categories are weighted to change the outcome of the Relative Threat Level Map as the committee sees fit.

Because of how dynamic agriculture is from year to year it is difficult to assign a fuel model to it. Often agriculture is considered a non-burnable which we all know is not true most of the time. There are times when the field may be in fallow or it is irrigated, but the following year it may be 3 foot tall wheat field. For this reason, in other Counties we chose to put a mask over the agriculture areas on the Relative Threat Level Map and then provide a narrative within the document explaining what types of fire behavior to expect in these ag fields. We could also run all of the agriculture areas as short or tall grass fuel model. This is something that the committee will have to decide.

### Agenda Item #3 – Review Chapters 1-4:

Northwest Management passed out the rough draft of the first four chapters. The committee briefly reviewed each. These chapters are mostly general information about the planning process, documentation of the process, Franklin County descriptions and demographics, and general wildfire information.

### Agenda Item #4 – Meeting Schedule:

The next meeting will be held on September 5<sup>th</sup> at 10:00 am, at the Franklin County Fire District #3 Fire Station located at: **7809 Road 36, Pasco, WA 99301**

## September 5th, 2013 – Fire Protection District #3 Fire Station #36

### Attendance:

Sean Davis, Franklin County Emergency Management	Les Litzenberger, Franklin Co. F.P.D. 3
Brandon Lewis, US Fish and Wildlife Service	Jonathan Brooks, U.S. Bureau of Reclamation
Joe Weeks, Washington DNR	Thomas Skinner, U.S. Fish & Wildlife Service
Phillip Buser, Washington Department of Fish & Wildlife	Brad Tucker, Northwest Management, Inc.
Bob Gear, Pasco Fire Department	

### Agenda Item #1 – Old Business:

Brad thanked everyone involved in upgrading the project from a Wildfire Risk Assessment to a Community Wildfire Protection Plan (CWPP). From this point forward the document will be referred to as a CWPP.

Brad reminded the Fire Districts that they need to provide NMI with the Fire District Surveys and Resource Lists.

Brad asked if there were any comments on the rough draft chapters 1-4 and Relative Threat Level Map that was discussed at the August meeting (there were none).

Northwest Management briefly talked about the Field Assessments. The field assessments will be used to verify if the maps being developed by Northwest Management (i.e. Rate of Spread, Relative Threat Level, etc.) are showing accurate information. These field assessments are also used to identify potential project areas so that when the document is completed the Committee has some areas to focus when the County receives grant funding. The assessments are tentatively scheduled to occur for the first week in October and anyone is welcome to join the assessment crew.

Locations identified for the field assessments include (but are not limited to); Smith Canyon, Martindale, Haugen/Kepps road, Juniper Dunes, Hanford Reach National Wildlife Refuge, Non-ag lands in northeast corner of county, and intersection of Fir and N. Columbia River road. If anyone has other areas for potential projects let Brad know.

### Agenda Item #2 – Action Items:

The committee used example Action Items from other counties to get a start on the Franklin County Action Items. The majority of the meeting was spent discussing the Action Items and who should be responsible. Brad will create the list and send it to the committee prior to the October meeting so the committee can review and we can discuss at that meeting.

### Agenda Item #4 – Meeting Schedule:

The next meeting will be held on October 3<sup>rd</sup> at 10:00 am, at the Franklin County Fire District #3 Fire Station located at: **7809 Road 36, Pasco, WA 99301**



**October 3rd, 2013 – Fire Protection District #3 Fire Station #36**

Attendance:

Jacque Cook, Franklin County Emergency Management
Phillip Buser, Washington Department of Fish & Wildlife
Les Litzenberger, Franklin Co. F.P.D. 3
Vaiden Bloch, Northwest Management, Inc.
Brad Tucker, Northwest Management, Inc.

Agenda Item #1 – Old Business:

The Committee was reminded that Northwest Management still needs some District Surveys and Resource lists.

Northwest Management asked if there were any comments on the Relative Threat Level map, there were none.

Northwest Management performed field assessments the day prior to the meeting and after the meeting. There were no additional areas the committee could think of that needed to be looked at

Locations that field assessments were conducted included; Smith Canyon, Martindale, Haugen/Kepps road, Juniper Dunes, Non-ag lands in northeast corner of county, and intersection of Fir and N. Columbia River road.

Agenda Item #2 – Action Items:

There were no comments on the list of Action Items previously developed.

Agenda Item #3 – Public Meetings:

Northwest Management is hoping to have the public meetings in November. It was initially planned for the first Wednesday and Thursday in November but that date is rapidly approaching and Northwest Management hasn't done enough public outreach regarding the issue. The next Wednesday and Thursday that Northwest Management is available is November 20 and 21. It was discussed with committee members present, that we should have one public meeting in Connell and one in Pasco. We are open to modifying that if someone thinks that we should have public meetings in other areas.

Agenda Item #4 – Meeting Schedule:

The next meeting will be held in November in conjunction with the public meetings. Northwest Management will send out a doodle poll to determine when and where the committee meeting should be held.

## November 20th, 2013 – Fire Protection District #3 Fire Station #36

### Attendance:

Sean Davis, Franklin County Emergency Management
Jonathan Brooks, Bureau of Reclamation
Les Litzenberger, Franklin Co. F.P.D. 3
Mike Solheim, Bureau of Land Management
Brad Tucker, Northwest Management, Inc.

### Agenda Item #1 – Old Business:

The Committee was reminded that Northwest Management still needs some District Surveys and Resource lists.

Northwest Management asked if there were any comments on the WUI map, there were none.

There were no comments on the list of Action Items previously developed.

### Agenda Item #2 – Chapter 5:

The group went over the draft of Chapter 5 which describes the types of fuels and landscape seen throughout the County. The committee recommended changing the “Channeled Scablands” title of one section to “Shrub/Steppe”. The committee was asked to review this chapter more thoroughly and provide NMI with changes.

### Agenda Item #3 – Proposed Projects:

Northwest Management developed a map of proposed projects. The committee reviewed these projects and added several more to the list. NMI will provide this map electronically when it gets updated with the new projects. These projects will be prioritized by the committee at the next meeting.

### Agenda Item #4 – Public Meetings:

Northwest Management hosted two public meetings at F.P.D. #3 station #36 and the Connell station. We had several committee members attend each meeting with one citizen at each meeting.

### Agenda Item #5 – Meeting Schedule:

The next meeting will be tentatively held December 17<sup>th</sup> at 10 am. This meeting will be at the Connell Fire Station. Northwest Management hopes to have the draft plan ready for this meeting for the committee to review.

## December 17th, 2013 – Fire Protection District #3 Fire Station #36

### Attendance:

Sean Davis, Franklin County Emergency Management	Jacque Cook, Franklin County Emergency Management
Thomas Skinner, US Fish & Wildlife	Joe Blazek, Washington DNR
Les Litzenberger, Franklin Co. F.P.D. 3	Chuck Wytko, Washington DNR
Mike Solheim, Bureau of Land Management	Mike Harris, Franklin CO. F.D. #3
Brad Tucker, Northwest Management, Inc.	Chris Schulte, Connell Fire Department

### Agenda Item #1 – Old Business:

The Committee was reminded that Northwest Management still needs some District Surveys and Resource lists.

### Agenda Item #2 – Public Review:

Northwest Management informed the committee that the public will have a chance to review the draft plan before it is finalized. Northwest Management asked the committee to decide how long the public should have to review it, where the plan should be made available, and what media outlets should be utilized to inform the public about the opportunity to review.

The public will have a chance to review the document for 4 weeks following the 4 weeks given to the committee to review the Plan. Press releases will be provided to the Tri-City Herald, Graphic, and KONA radio station. The committee decided that these media outlets reach a sufficient amount of people and are easy to work with. The committee determined that the document will be posted on the Emergency Management Department, Fire District #3, and the City of Connell's websites. Hardcopies of the plan will be made available at Franklin Co. F.D. #3 station 36, Connell library, Kahlotus library, and Basin city library.

### Agenda Item #3 – Proposed Projects:

Northwest Management developed a map of proposed projects. The committee reviewed these projects and prioritized them with a low, moderate or high ranking. Some concern was brought up on the type of projects that were on the list (e.g. roadside fuels treatments along 395). The committee felt that some projects were not feasible for several reasons. The committee decided to leave the list as it was but add a narrative describing the criteria used to develop the project areas and also provide a blanket statement that would allow Franklin County to use funding to provide Point Protection for specific areas of the County that may be deemed 'at risk' during any given year.

### Agenda Item #4 – Draft Document:

Northwest Management passed out the draft plan to the committee and gave the committee until January 14<sup>th</sup> to provide comments or make edits. Franklin Co. F.D. #3 will provide NMI with a map showing the latest Fire District changes. NMI will send the PDF version of the plan in an email to everyone on the email list for review.

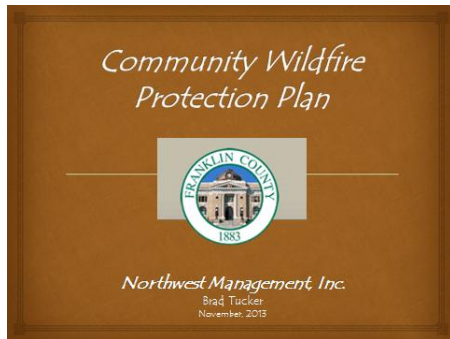
### Agenda Item #5 – Meeting Schedule:

Once the final version of the plan is developed, we will likely host one last meeting to acquire signatures (NMI will inform at a later date). There will be no future monthly meetings unless significant changes are required and NMI needs the committees advice on how to proceed. NMI will inform everyone if that is the case.

# 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.

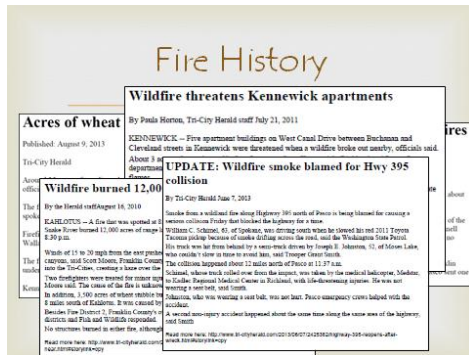
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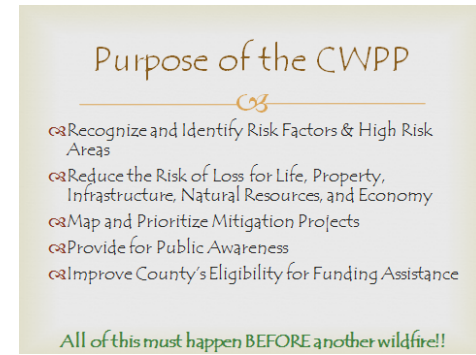
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Slide 3



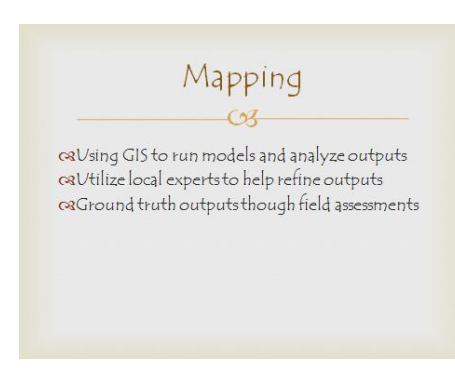
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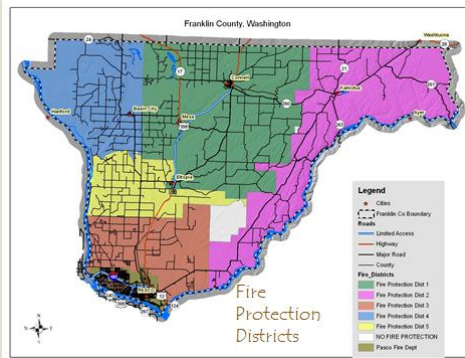
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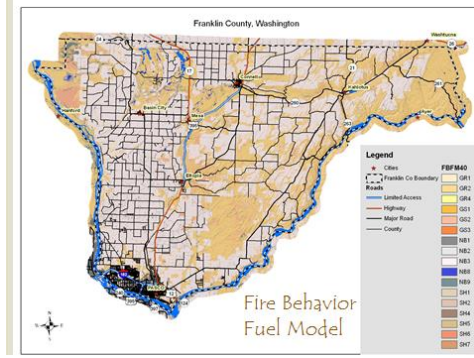
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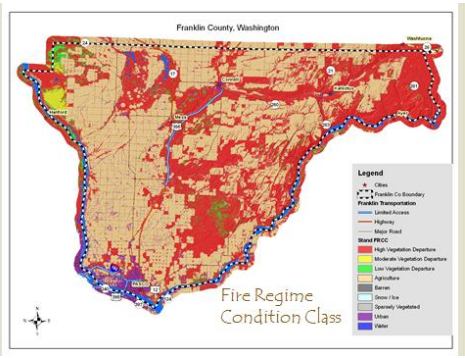
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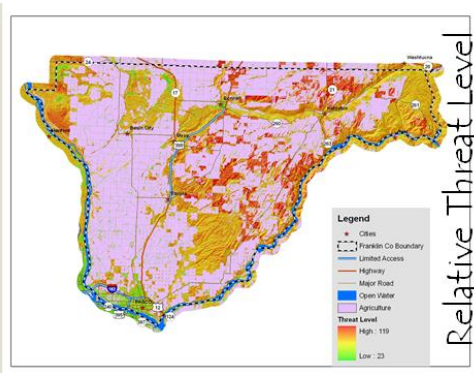
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Slide 9



Slide 10



Slide 11

## Preparedness

- ☞ Fire Services & Emergency Services
  - ☞ Resources & Training
- ☞ Wildland Fire Protection
  - ☞ Who's Jurisdiction?
  - ☞ What MOUs are in place?
- ☞ Local Government
  - ☞ Protecting citizens through policy & education
- ☞ Local Organizations
  - ☞ Find out how you can get involved



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## Public Involvement

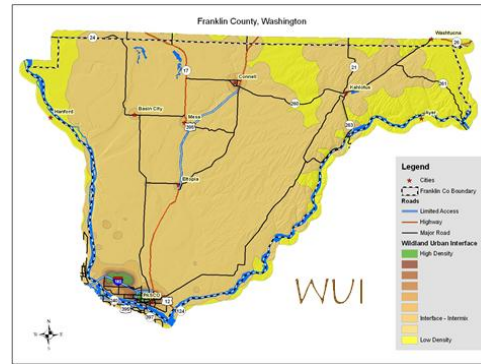
- ☞ Press Releases about planning efforts
- ☞ Informational flyers
- ☞ Public Meetings X2
- ☞ Public Review of the DRAFT Plan



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Slide 14



Slide 15



Slide 16



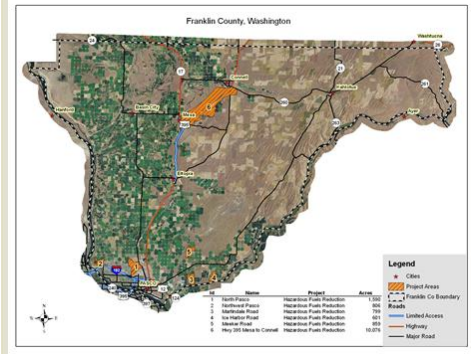
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Slide 18

Action Item	Goals Addressed (see page 4)	Responsible Organization	Timeline
6.2.a. Implementation of youth and adult wildfire educational programs distribute educational information regarding construction in high risk wildfire areas.	CWPP Goal #1, 4, 6, & 9 High	Lead: Franklin Conservation District and WSU Extension Support: Franklin County Fire Districts and local schools	1 year
6.2.b. Prepare for wildfire events in high risk areas by conducting home site risk assessments and developing area-specific "Response Plans" to include participation by all affected jurisdictions and landowners.	CWPP Goal #1, 2, 4, 6, & 9 High	Lead: Franklin Conservation District and WSU Extension Support: Franklin County Fire Districts	2 years
6.2.c. Work with area homeowner's associations to foster cooperative approach to fire protection and assess and identify mitigation needs.	CWPP Goal #1, 2, 4, 6, & 9 High	Lead: Franklin Conservation District and WSU Extension Support: Franklin County Fire Districts	2 years
6.2.d. Work with WSU Extension, Master Gardeners, and other existing programs to offer firewise landscaping clinics to assist property owners in maintaining fire-resistant	CWPP Goal #1, 4, 6, & 9 Moderate	Lead: Franklin Conservation District Support: Spokane Master Gardeners and	Ongoing

Slide 19



Slide 20

## 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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## Public Comments

There have been no public comments regarding this plan to this point.

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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.

These data were derived using fire history data from a variety of different sources. These data were 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.

<b>Vegetation Condition Class</b>	<b>Description</b>	<b>Potential Risks</b>
<b>Condition Class 1</b>	Within the natural (historical) range of variability of vegetation characteristics; fuel composition; fire frequency, severity and pattern; and other associated disturbances.	<p>Fire behavior, effects, and other associated disturbances are similar to those that occurred prior to fire exclusion (suppression) and other types of management that do not mimic the natural fire regime and associated vegetation and fuel characteristics.</p> <p>Composition and structure of vegetation and fuels are similar to the natural (historical) regime.</p> <p>Risk of loss of key ecosystem components (e.g., native species, large trees, and soil) is low.</p>
<b>Condition Class 2</b>	Moderate departure from the natural (historical) regime of vegetation characteristics; fuel composition; fire frequency, severity and pattern; and other associated disturbances.	<p>Fire behavior, effects, and other associated disturbances are moderately departed (more or less severe).</p> <p>Composition and structure of vegetation and fuel are moderately altered.</p> <p>Uncharacteristic conditions range from low to moderate.</p> <p>Risk of loss of key ecosystem components is moderate.</p>
<b>Condition Class 3</b>	High departure from the natural (historical) regime of vegetation characteristics; fuel composition; fire frequency, severity and pattern; and other associated disturbances.	<p>Fire behavior, effects, and other associated disturbances are highly departed (more or less severe).</p> <p>Composition and structure of vegetation and fuel are highly altered.</p> <p>Uncharacteristic conditions range from moderate to high.</p> <p>Risk of loss of key ecosystem components is high.</p>

## Relative Threat Level

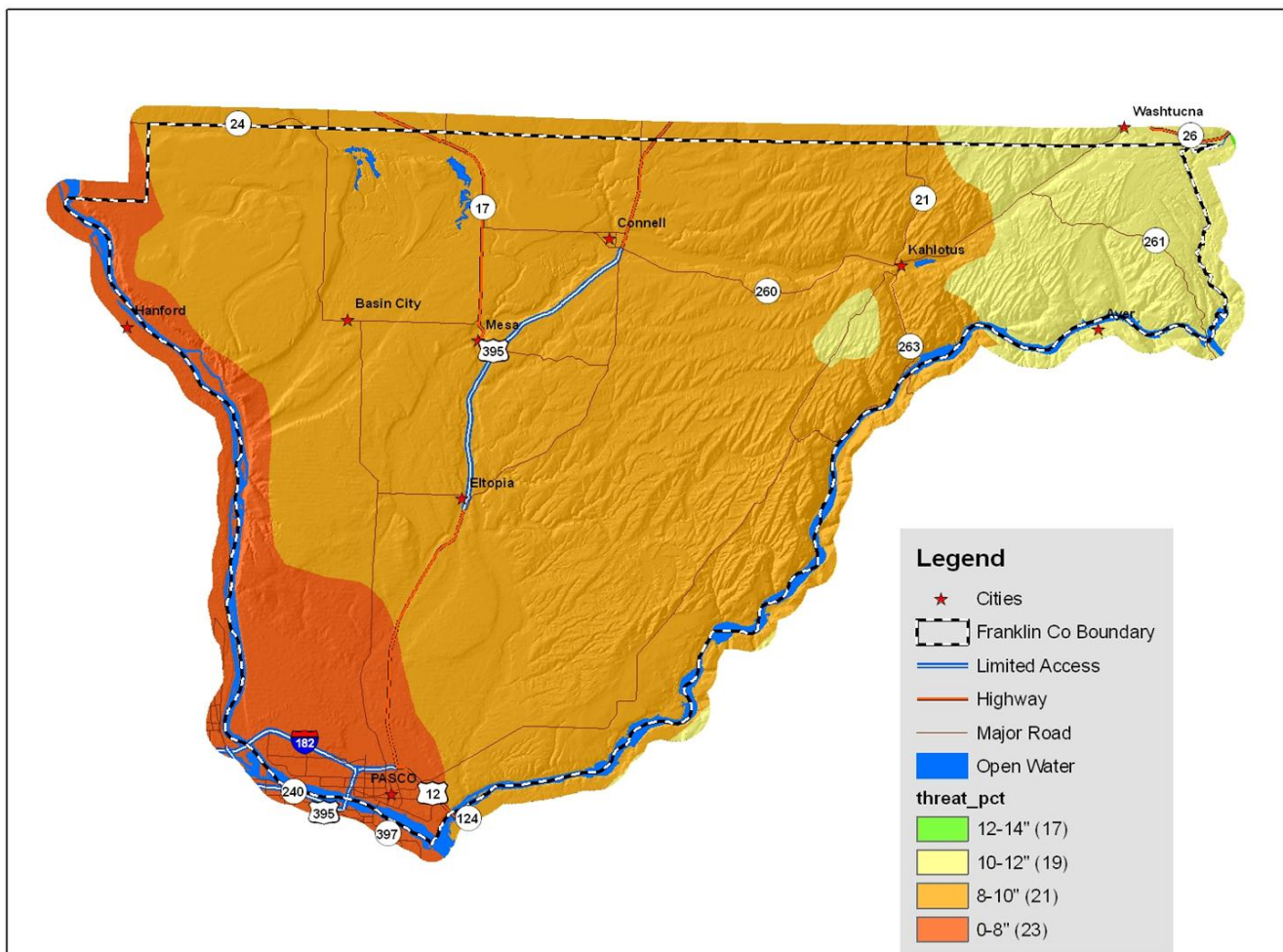
Development of a Threat Level map for the Franklin County CWPP involved geographically developing and ranking the various threat categories identified by the CWPP Committee. Threat categories identified for the analysis include Slope, Aspect, Fire Behavior Fuel Model, Predicted Flam Length Class, Precipitation Levels, Predicted Rate of Fire Spread, Predicted Wild Fire Intensity 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

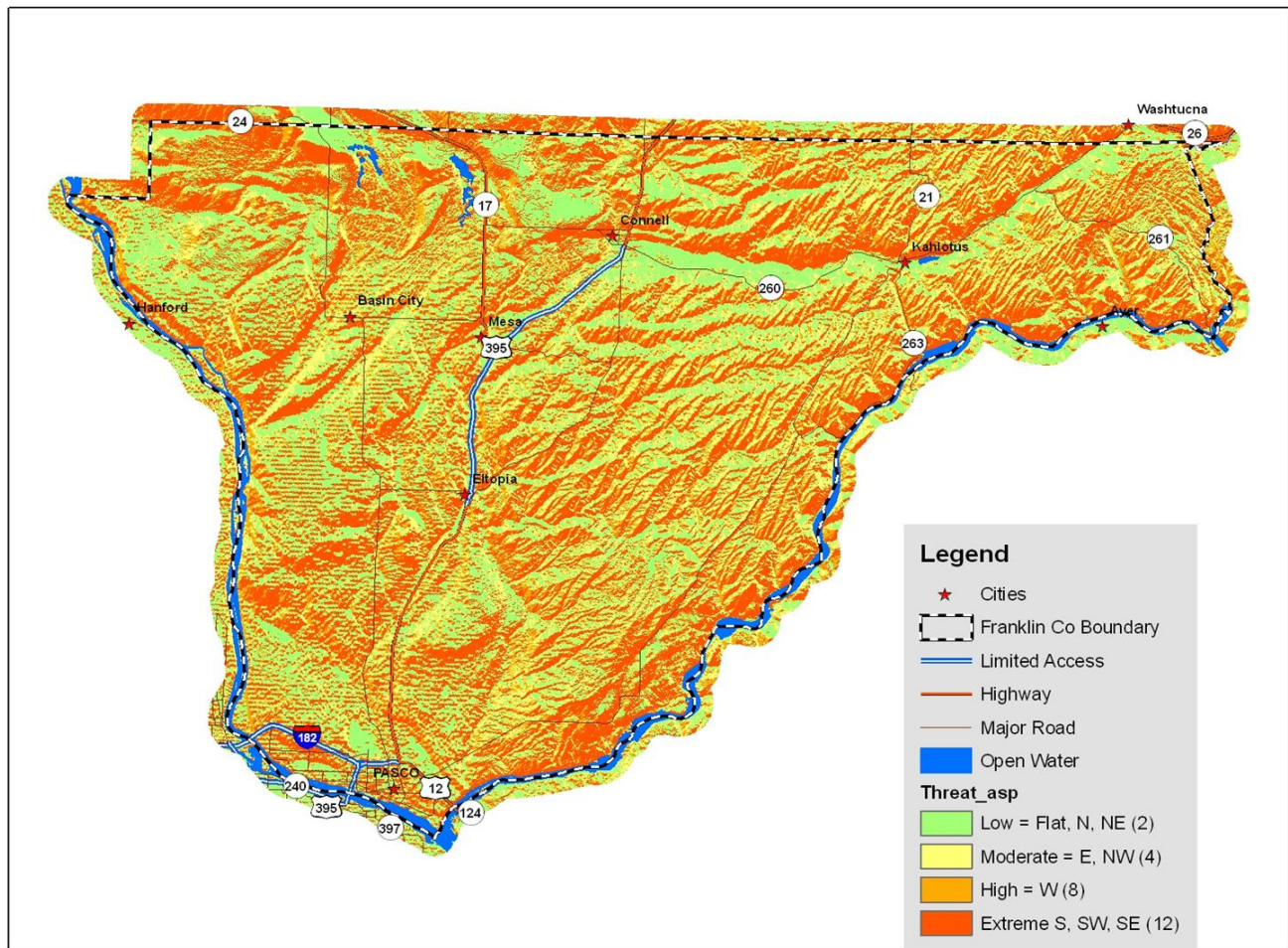
A GIS precipitation data layer developed by the USDA/NRCS – National Cartography & Geospatial Center, was used to identify average precipitation across Franklin County. The dataset provides derived average annual precipitation in polygon contour format according to a model using point precipitation and 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 derived using the average for the range of values, multiplied by two, and subtracting the range value. This gives an inverse value relationship indicating that increased precipitation has a decreased threat level. The threat level range is between 7 and 23 with low precipitation



areas exhibiting the high threat level value, and high precipitation area the low value.

## Aspect

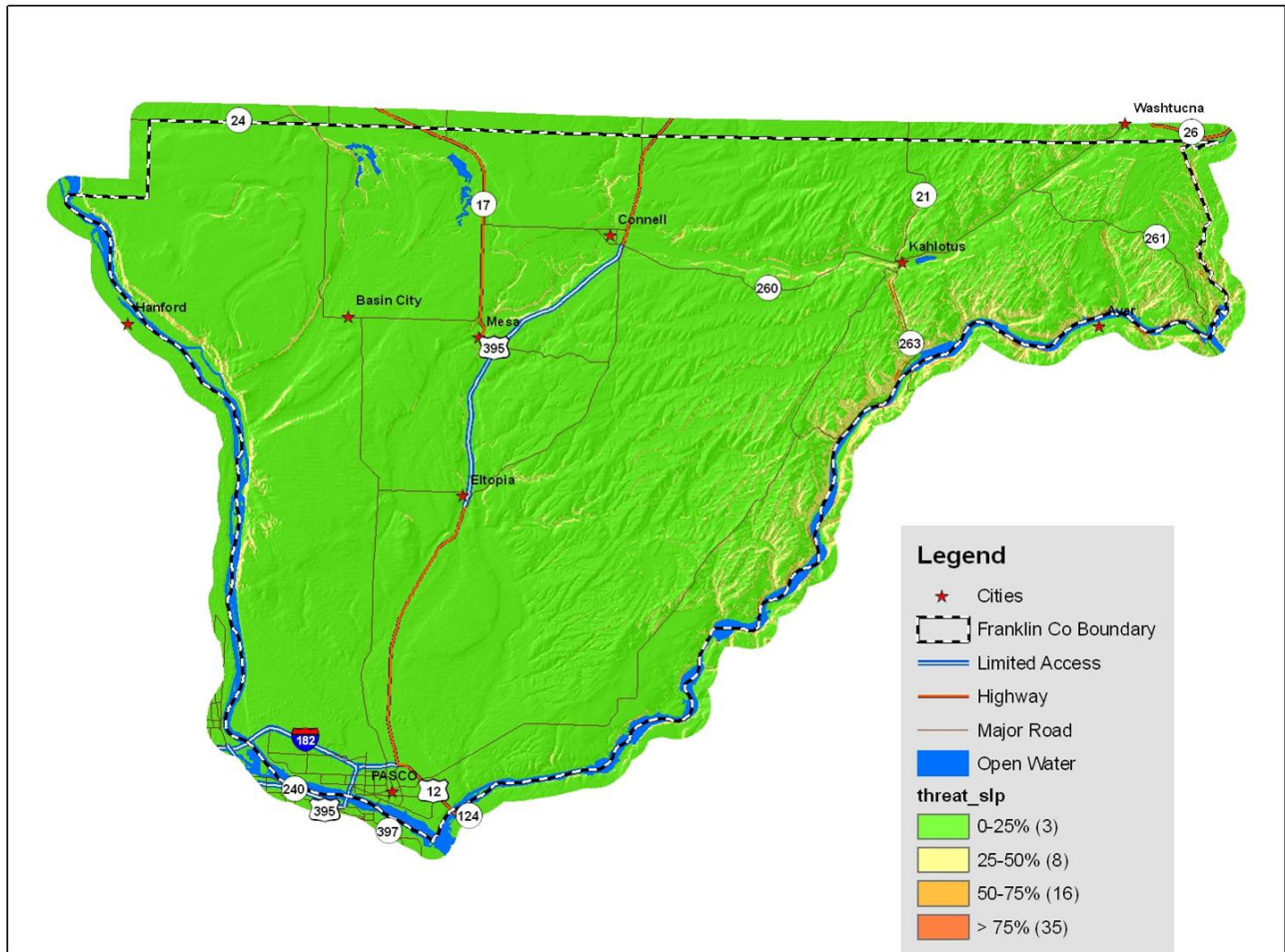
An aspect raster data layer was created in ArcGIS using the Spatial Analyst extension and a 10 meter digital elevation model. Data processing in ArcGIS assigns an aspect value from 0-359° to each pixel to represent compass azimuths. These azimuths were interpreted and given a threat value based on their 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 2 for low, East and Northwest were assigned a value of 4 for moderate, West was assigned a value of 8 for high, and Southwest, South and Southeast were assigned a value of 12 for extreme.



South and Southeast were assigned a value of 12 for extreme aspect threat level.

## 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 4 groups, Low, Moderate, High and Extreme for final analysis. From a wildfire stand point, the threat from fire increases with increased slope. For this analysis, 0-25% slope was assigned a value of 8 for low threat, 25-50% slope a value of 25 for moderate threat, 50-75% slope a value of 32 for high threat, and greater

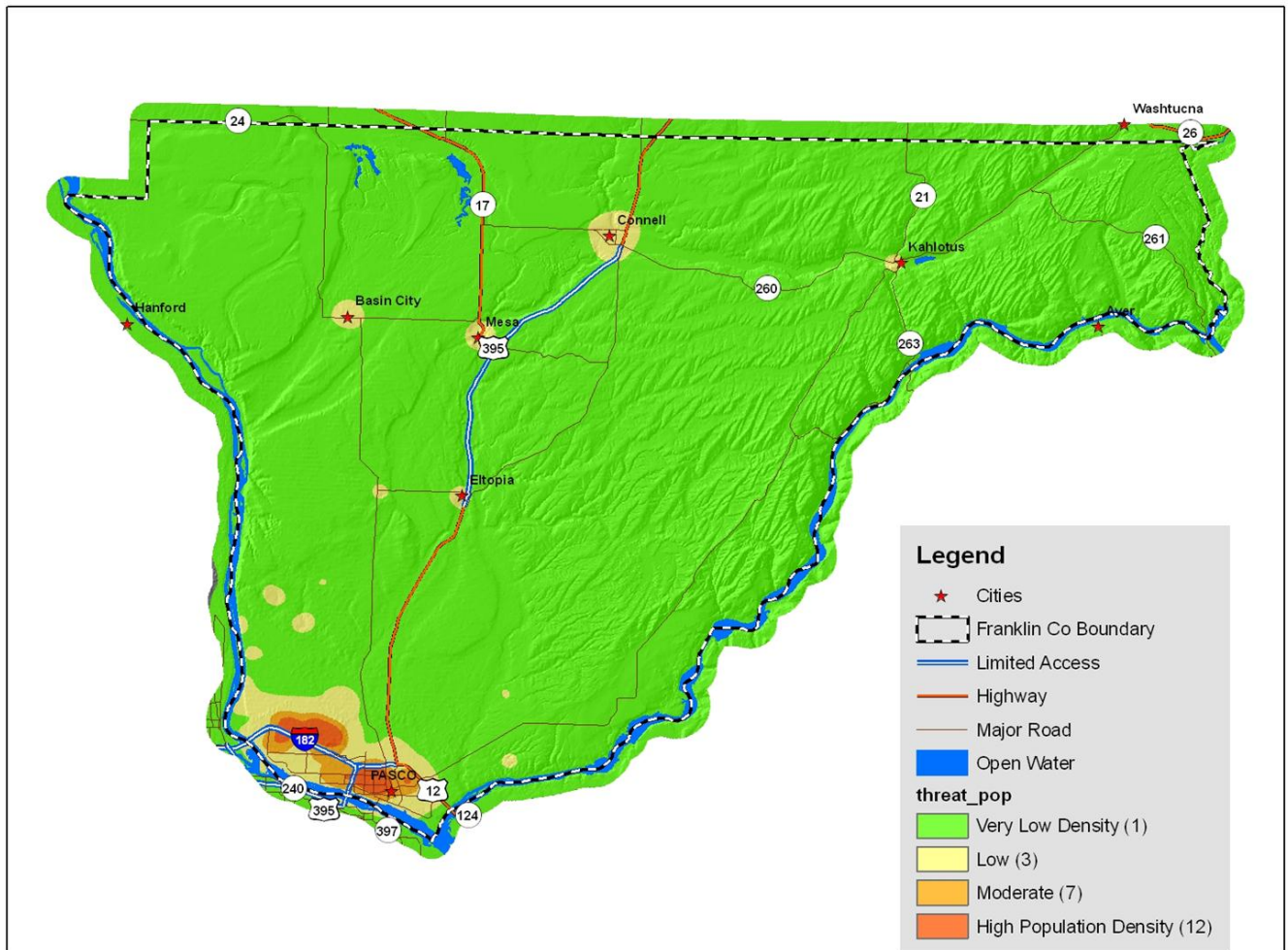


than 75% slope a value of 50 for extreme threat.



## Population

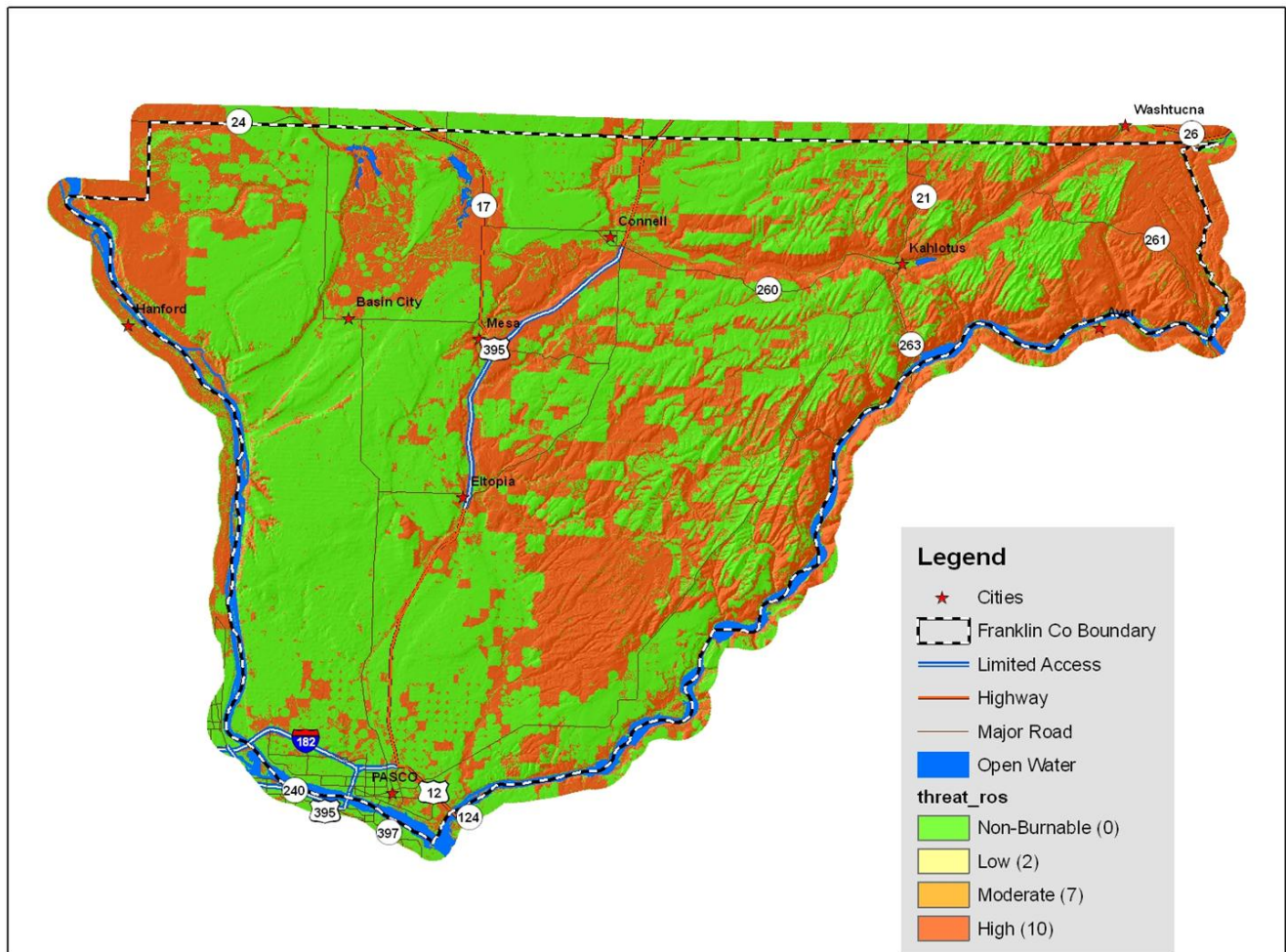
Population density plays a role in Franklin County wildfire threat. Most wildfires in the county are man caused. To represent this in a threat level analysis, population density across the county was mapped using a Kernel density model based on structure point locations. The output from this analysis produces contour polygons of equal population density across the landscape. The contour polygon data set was then reclassified into four categories and assigned a population threat level value. 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. The



four values used are 1 for very low population density, 3, 7 and 12 for high density.

## Rate of Spread

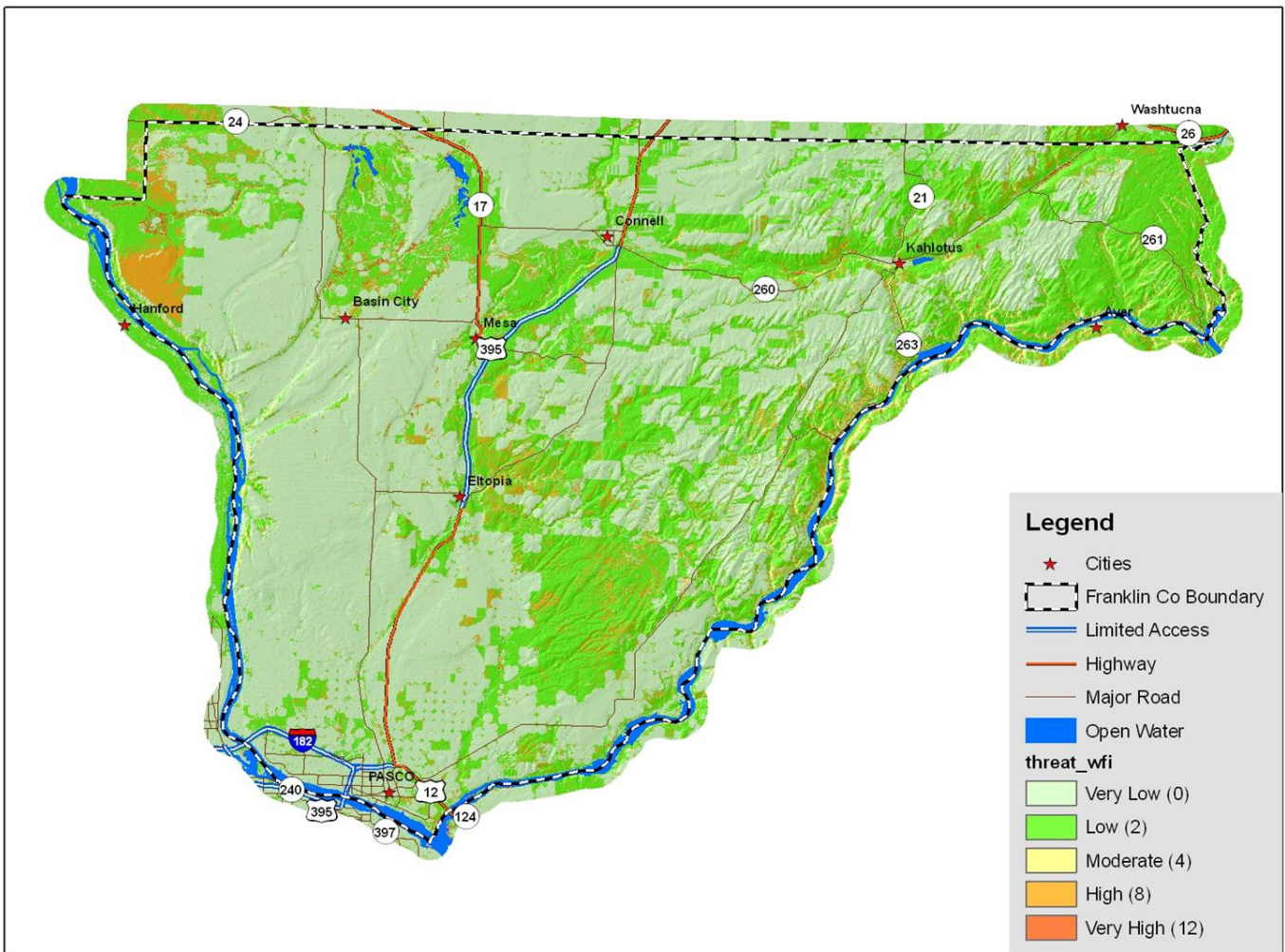
Output data from the Fire Behavior Assessment Tool (FBAT) was used to predict Rate of Spread (ROS). Rate of Spread is a derived metric that classifies areas into four classes representing non-burnable low ( $0 < ROS < 5.5$  ft/min), moderate ( $5.5 \text{ ft/min} < ROS < 55$  ft/min) and high spread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



low ROS, 7 to the moderate ROS, and 10 to the high ROS.

## Wildland Fire Intensity

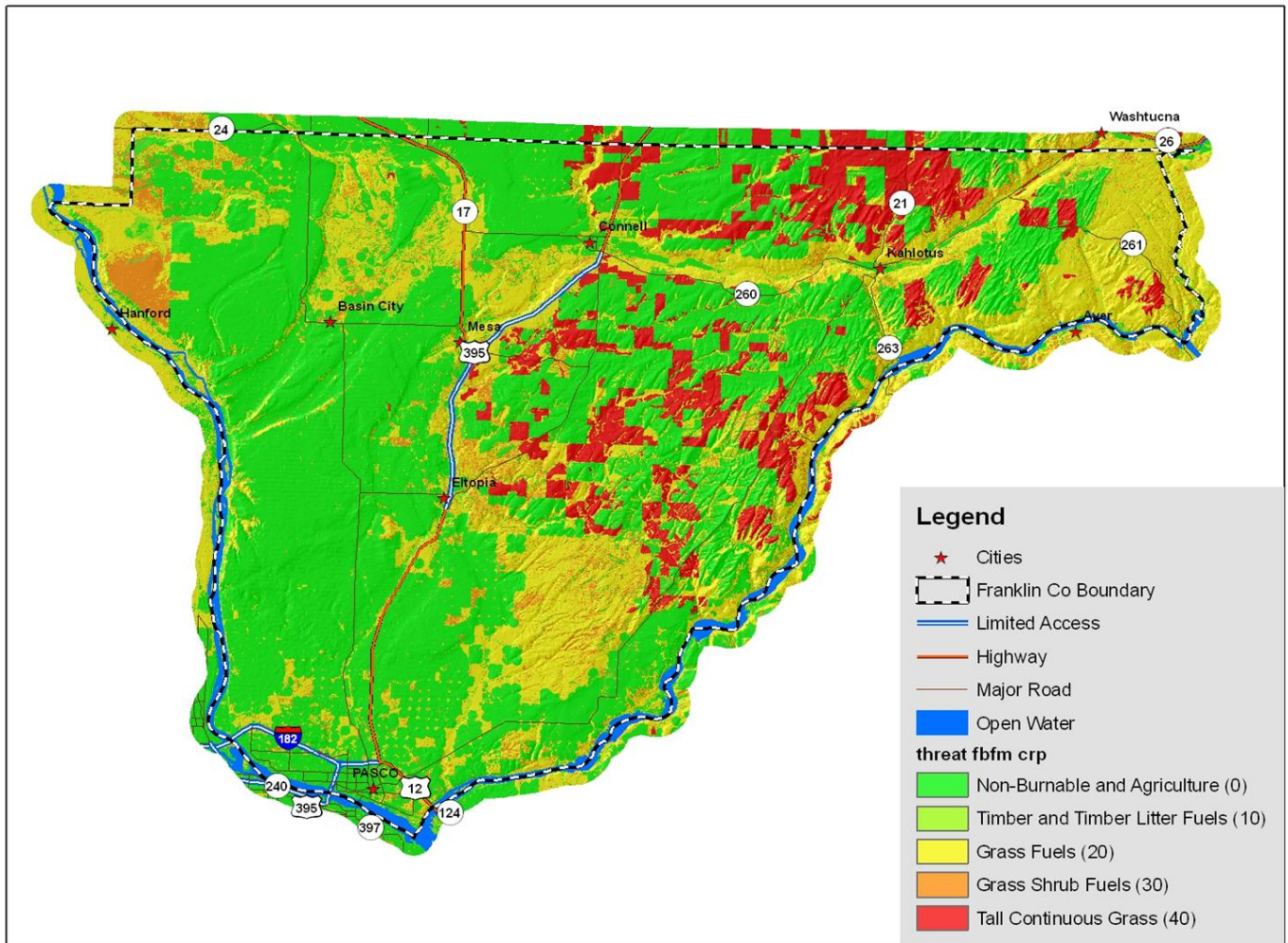
Output data from the Fire Behavior Assessment Tool (FBAT) was used to predict Wildland Fire Intensity (WFI). Wildland Fire Intensity is a derived metric that facilitates communication about and interpretation of fireline intensity. It is analogous to the logarithmic Richter scale used to measure the magnitude of earthquakes. For threat level analysis, the predicted WFI outputs from the FBAT model were classified into four categories, (Low, Moderate, High and Extreme) and given threat level values from 0-40 with a 10 fold increase in treat value between threat levels.





## 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 Franklin County that were depicted in the fuels layer were grouped into 5 threat level value categories based on perceived relative contribution to wildfire threat. The following ranking was used in the analysis. Agricultural areas were assigned a value of 0, timber fuels were assigned a value of 10, grasslands were assigned a value of 20, mixed shrub and grass were assigned a value of 30, and tall grass and CRP fields were assigned a value of 40. The values given the categories are meant



to represent the role various surface fuels contribute to overall wildfire threat in Douglas County.

Each data layer was developed, ranked and converted to a raster format using ArcGIS 9.3.1. The ten 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 draft overall threat map layer. The draft layer had many areas of mixed pixel classification. To clean up and create a final output the draft data set was reprocessed in ArcGIS Spatial Analyst using the Majority Filter and Boundary Clean tools. This process cleaned and generalized areas of the data layer by grouping areas of scattered and mixed pixelization into areas of uniform pixelization. Values in the cleaned version were then grouped into four categories based on the summed value and color coded to produce the final threat map layer. The final layer show areas of highest threat using red, to lowest threat using purple (see threat level map). 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.

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## Appendix 4

### Fire Services Information

**Franklin County****Fire Protection District #1:**

Chief: Eric Mauseth  
Telephone: 509-234-2421  
Address: 150 E Franklin, Connell, WA 99326

**Franklin County****Fire Protection District #2:**

Chief: Luke Vanhollenbeke  
Address: 116 W 2<sup>nd</sup> Ave., Lind, WA 99341  
Telephone: 509-282-3435

**Franklin County****Fire Protection District #3:**

Chief: Mike Harris  
Telephone: 509-547-9306  
Email: mharris@fcfd3.org  
Address: 7809 North Road 36, Pasco, WA 99301

**Franklin County****Fire Protection District #4:**

Chief: Steve Cooper  
Telephone:  
Address:

**Franklin County****Fire Protection District #5:**

Chief: Bryan Thornhill  
Telephone:  
E-Mail:  
Address:

**Pasco Fire Department:**

Chief: Bob Gear  
Telephone: 509-310-3426  
E-Mail: gearb@pasco-wa.gov  
Address: 310 N Oregon St., Pasco, WA 99301

**Connell Fire Department:**

Chief: Chris Schulte  
Telephone: 509-234-5451  
E-Mail: CSchulte@connellwa.org  
Address: 104 E. Adams St., Connell, WA 99326

**U.S. Fish and Wildlife Service:**

FMO: Thomas Skinner  
Telephone: 509-371-1801  
Address: 3250 Port of Benton Blvd., Richland, WA 99352



**Bureau of Land Management**

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

## Fire Services Resource List

	Type	Resource	Gallons	Drive	Vehicle or License #	Specifications	Location
Franklin County Fire District #1	Command 201	Command Vehicle	0	4 x 4	WA, 19545D	F-250, Pick up, Crew cab	Connell Fire Station
	T-1 Engine/Pumper	E2011	1000	2 x 4	WA, 09818D	Structural Apparatus	Connell Fire Station
	T-2 Aerial	T2021	400	2 x 4	WA, 47588D	Structural Apparatus	Connell Fire Station
Franklin County Fire District #2							
Franklin County Fire District #3	Engine 1	Structural Engine	1000	2x4	E2316	1250 gpm	St36
	Engine 1	Structural Engine	1000	2x4	E2314	1250 gpm	St34
	Engine 1	Structural Engine	1000	2x4	E2313	1500 gpm	St33
	Engine 1	Structural Engine	1500	2x4	E2311	1000 gpm	St31
	Engine 1	Structural Engine	750	2x4	E2812	1250 gpm	St32
	Engine 5	Wildland Engine	400	4x4	E2356	125 gpm, FOAM Remote	St36
	Engine 5	Wildland Engine	400	4x4	E2854	125 gpm, FOAM Remote	St34
	Engine 6	Wildland Engine	300	4x4	E2365	125gpm, FOAM Remote	St35
	Engine 6	Wildland Engine	300	4x4	E2363	100 gpm FOAM	St33
	Engine 6	Wildland Engine	300	4x4	E2361	100 gpm FOAM	St31
	Engine 6	Wildland Engine	300	4x4	E2862	100 gpm FOAM	St32
	Plow 1	Tractor/Disk		4x4	PL231	10' Three point	St31
	Rescue 4	Medium Rescue	60 CAFS	2x4	R2346	12kw Generator, JAWS, CAFS, Lighting	St36
	Rescue 4	Rescue/Cascade		4x4	R2844	JAWS, CAHI	St34
	Water Tender 2	Water Tender	1875	4x6	W2822	1250 gpm	St32
	Water Tender 2	Water Tender	2500	4x6	W2326	1000 gpm	St36
	Water Tender 2	Water Tender	2500	4x6	W2321	500 gpm	St31
	Water Tender 2	Water Tender	2500	4x6	W2824	400 gpm	St36
	Utility	Utility		4x4	UT231	Duty Officer	
	Utility	Utility		4x4	UT232	Fire Chief	

	Type	Resource	Gallons	Drive	Vehicle or License #	Specifications	Location
Franklin County Fire District #5	Utility	Utility		4x4	UT233	2 Passenger ¾ ton, Winch	
	Maintenance	Maintenance	300	4X4	MA232	100gpm FOAM	St33
	ATV	ATV	70	6x6	AT233	25gpm FOAM	St31
	Aid 2	BLS ambulance		2x4	A2326	EMT Basic Life Support	ST36
	Aid 2	BLS ambulance		2x4	A2822	EMT Basic Life Support	ST32
	Command 251	Command Vehicle	0	4 x 4	WA	F-250, Pick up, Crew cab	Chiefs Residence
	T-1 Engine/Pumper	E2211	1200	2 x 4	WA	Structural Apparatus	Glade north Station
	T-1 Structure engine	E2512	1800	2x4	WA	Pumper tender	Dogwood RD
	W-1 Water tender	W2511	5000	2x4	WA	Water tender	Glade north Station
	T-6 Engine	E2561	400	4x4	WA	Wildland Engine	Glade north Station
	T-6 Engine	E2562	350	4x4	WA	Wildland Engine	Glade north Station
City of Connell Fire Department	Command 201	Command Vehicle	0	4 x 4	WA, 19545D	F-250, Pick up, Crew cab	City of Connell Fire Station
	T-1 Engine/Pumper	E2011	1000	2 x 4	WA, 09818D	Structural Apparatus	City of Connell Fire Station
	T-2 Aerial	T2021	400	2 x 4	WA, 47588D	Structural Apparatus	City of Connell Fire Station
City of Pasco Fire Department	Eng 1	Structural Engine	750		E2811	1500 gpm pump	Station 81
	Eng 1	Structural Engine	750		E2813	1500 gpm pump	Station 83
	Eng 1	Structural Engine	750		E2819	1500 gpm pump	Station 83
	Eng 6	Wildland Engine	300	4X4	E2861	150 gpm pump	Station 81
	Eng 6	Wildland Engine	300	4X4	E2863	150 gpm pump	Station 83
	ICT4	Command Vehicle	N/A	2X4	BC281	Battalion Chief	Station 81
	ICT 1	Command Vehicle	N/A	4X4	CH281	Fire Chief	Station 81
	PSC 3	Command Vehicle	N/A	4X4	TO281	Training/Plans Section Chief	Station 81
	Lad. 2	Aerial Ladder	300		L2811	1500 gpm pump	Station 82
	Amb 2	ALS Amb	N/A		M2821	Advanced Life Support/Paramedics	Station 81
	Amb 2	ALS Amb	N/A		M2822	Advanced Life Support/Paramedics	Station 82
	Amb 2	ALS Amb	N/A		M2823	Advanced Life Support/Paramedics	Station 83
	Amb 2	ALS Amb	N/A		M2824	Advanced Life Support/Paramedics	Station 83

	Type	Resource	Gallons	Drive	Vehicle or License #	Specifications	Location
	Res 4	Tech. Rescue	50	4X4	R2841	Light Rescue	Station 82
	Eng 1	Structural Engine	750		E2811	1500 gpm pump	Station 81
U.S. Fish & Wildlife Service	Type 6	Wildland Engine	300	4x4	E-863		Burbank
	Type 6	Wildland Engine	300	4x4	E-861	Not currently funded	Othello
	Type 4	Wildland Engine	750	4x4	E-841		Burbank
	Type 5	Wildland Engine	500	4x4	E-852		Othello
	ICT3/DIVS	Command Vehicle		4x4	Div-802		Burbank
	ICT3/DIVS	Command Vehicle		4x4	CH-801		Burbank
	ICT4/DIVS	Command Vehicle		4x4	BC-804		Burbank
	ICT3	Command Vehicle		4X4	BC-802		Othello
	Type 3	Fire Boat			FB-831	Staffed when needed	Burbank
	BLM	Type 6	Wildland Engine	300	4x4	E-6696	
Type 6		Wildland Engine	300	4x4	E-6695		Wenatchee
Type 2		Handcrew		4x4	C-6201	10-person handcrew	Spokane
ICT3		Command Vehicle					Spokane
		Chipper		Trailer		Vermeer BC1200	Spokane
Washington Department of Natural Resources	Type 5				WA-NWS-E5-462 H5S-4198		
	Type 5				WA-NWS-E5-463 H5S-5230		
	Type 5				WA-NWS-E5-465 H5S-5232		
	Type 5			4 X 4	WA-NWS-E5X-541 H4S-0007		
	Type 5			4 X 4	WA-NWS-E5X-542 H4S-0022		
	Type 5			4 X 4	WA-NWS-E6X-543 H4S-0010		
	Type 5				WA-NWS-E5-566 H5S-088		
	Type 6			4X 4	WA-NWS-E6X-421 A1S-4540		
	Type 6			4 X 4	WA-NWS-E6X-523 A1S-4259 w/ tow hitch		
	Type 5				WA-NWS-E5-563 H5S-4197		
	Type 5				WA-NWS-E5-564 H5S-4199		
Type 5				WA-NWS-E5-565 H5S-072			

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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 Douglas 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 Douglas 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

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## Appendix 6

### Potential CWPP Project Funding Sources

#### **Assistance to Firefighters Grant**

[http://www.rkb.mipt.org/contentdetail.cfm?content\\_id=44122](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](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](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](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](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](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](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 ...*

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**Disposal of Federal Surplus Real Property**

[http://www.rkb.mipt.org/contentdetail.cfm?content\\_id=43990](http://www.rkb.mipt.org/contentdetail.cfm?content_id=43990)

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

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**Emergency Management Institute (EMI) Independent Study Program**

[http://www.rkb.mipt.org/contentdetail.cfm?content\\_id=44100](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 ....*

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**Emergency Management Institute (EMI) Resident Educational Program**

[http://www.rkb.mipt.org/contentdetail.cfm?content\\_id=44102](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 ....*

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**Emergency Management Institute Training Assistance**

[http://www.rkb.mipt.org/contentdetail.cfm?content\\_id=44098](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 ....*

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**Fire Management Assistance Grant**

[http://www.rkb.mipt.org/contentdetail.cfm?content\\_id=44124](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 ....*

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**Hazard Mitigation Grant Program**

[http://www.rkb.mipt.org/contentdetail.cfm?content\\_id=44130](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 ....*

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**Hazardous Materials Planning and Training**

[http://www.rkb.mipt.org/contentdetail.cfm?content\\_id=133349](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](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.*



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**Homeland Security Grant Program (HSGP)**

[http://www.rkb.mipt.org/contentdetail.cfm?content\\_id=118605](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.*

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**Interagency National Fire Plan Community Assistance**

[www.nwfireplan.gov](http://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.*

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**National Fire Academy Educational Program/Harvard Fellowship Grant**

[http://www.rkb.mipt.org/contentdetail.cfm?content\\_id=133343](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.*

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**National Fire Academy Training Assistance**

[http://www.rkb.mipt.org/contentdetail.cfm?content\\_id=44104](http://www.rkb.mipt.org/contentdetail.cfm?content_id=44104)

*To provide travel stipends to students attending Academy courses.*

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**Pre-Disaster Mitigation Program**

[http://www.rkb.mipt.org/contentdetail.cfm?content\\_id=102626](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.*

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**Rural Fire Assistance (RFA)**

[http://www.rkb.mipt.org/contentdetail.cfm?content\\_id=97736](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](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.*

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**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.*

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**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.*

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**Wildland-Urban Interface Community and Rural Fire Assistance**

[http://www.rkb.mipt.org/contentdetail.cfm?content\\_id=43914](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.*

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## 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 Franklin 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 1<sup>st</sup> to September 30<sup>th</sup>. 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 Franklin 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 Franklin 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.

This plan was developed by Northwest Management, Inc. under contract with Franklin County Fire Protection Districts, Franklin County Emergency Management, and the Bureau of Land Management.

**Citation of this work:**

Tucker, Brad and V. Bloch. *Lead Authors*. 2014. Franklin County, Washington, Community Wildfire Protection Plan. Northwest Management, Inc., Moscow, Idaho. Pp 103.

Tucker, Brad and V. Bloch. *Lead Authors*. 2014. Franklin County, Washington, Community Wildfire Protection Plan Appendices. Northwest Management, Inc., Moscow, Idaho. Pp 61.



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