Washington County, Oregon

Community Wildfire Protection Plan

Appendices

August 6, 2007

Vision Statement: The Washington County Community Wildfire Protection Plan seeks to create a community where locally-developed and supported wildfire prevention and mitigation strategies are implemented to reduce wildfire risks to people, property, and the environment. The plan further seeks to ensure the community balances its wildfire prevention and mitigation strategies with the maintenance of appropriate wildfire response capabilities and sustainable natural resource management practices.

David Hill Road 2006

This plan was developed by the Washington County Community Wildfire Protection Plan planning committee in cooperation with the Washington County Fire Defense Board and Northwest Management, Inc. (Tel: 208-883-4488 or www.Consulting-FoReserveters.com).

Table of Contents

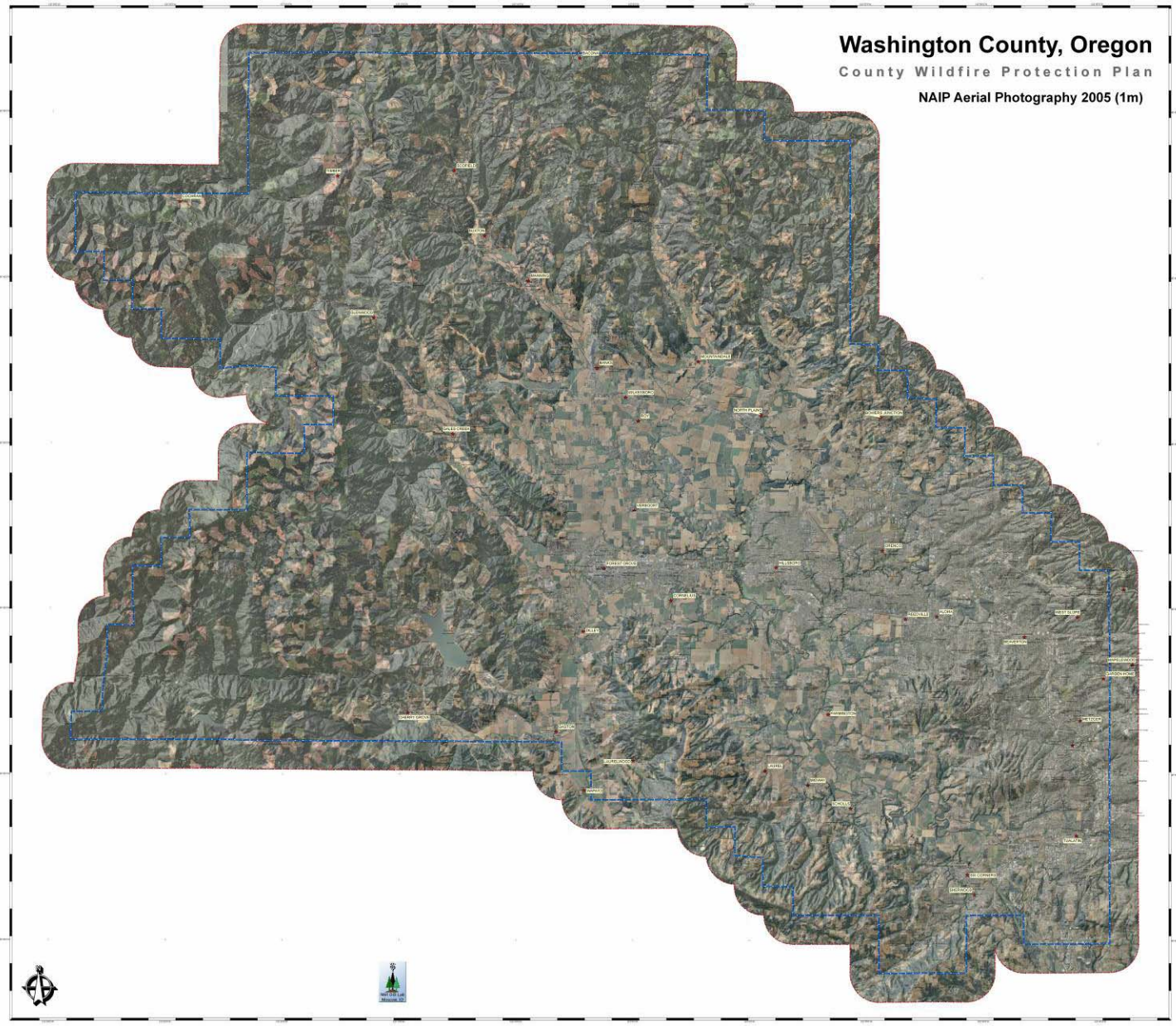
Appendix I: Maps

Northwest Management, Inc.

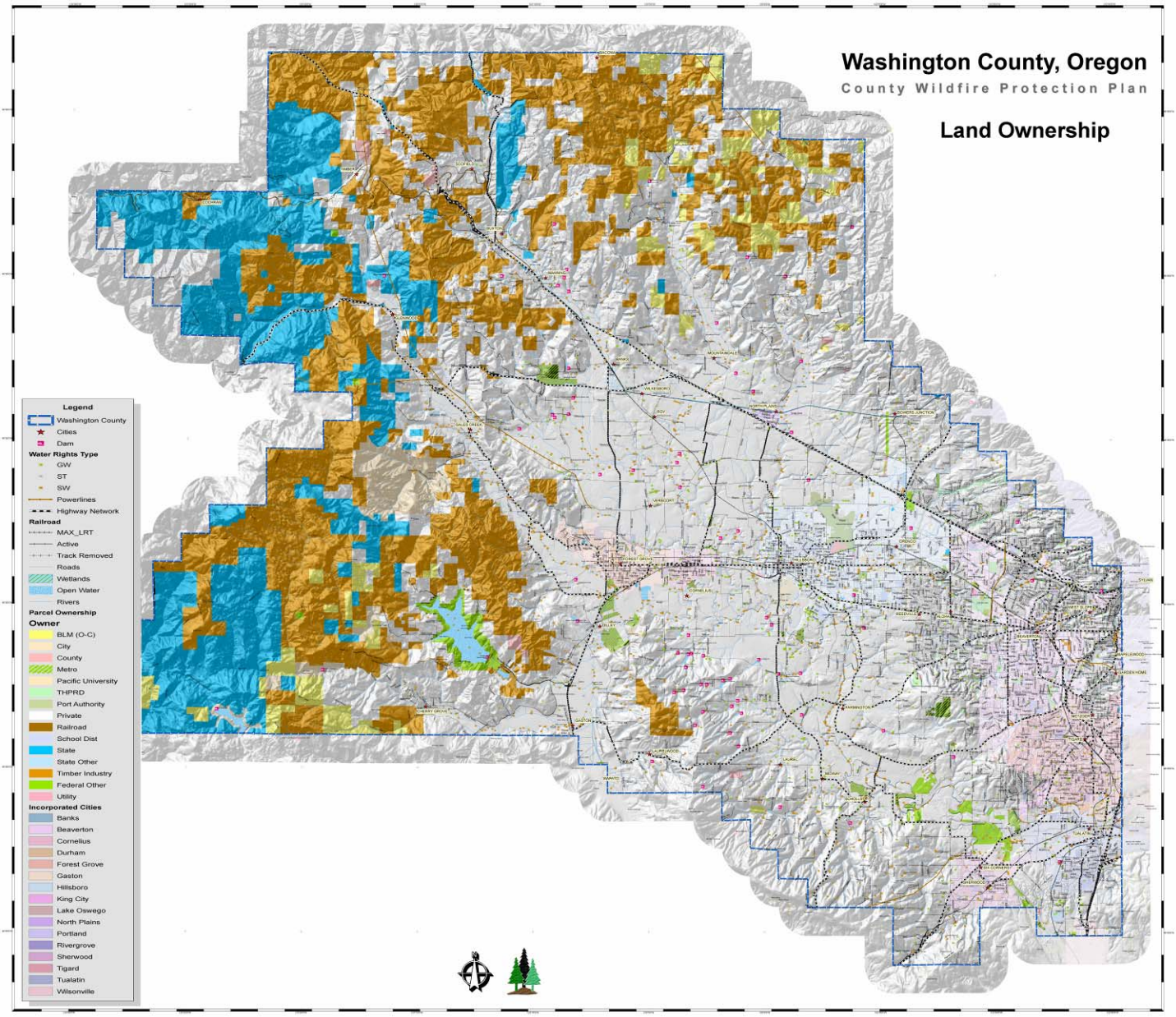
233 East Palouse River Dr., P.O. Box 9748, Moscow, ID 83843 www.Consulting-Foresters.com

The information on the attached maps was derived from digital databases from NMI's GIS lab. 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 which accompany 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.

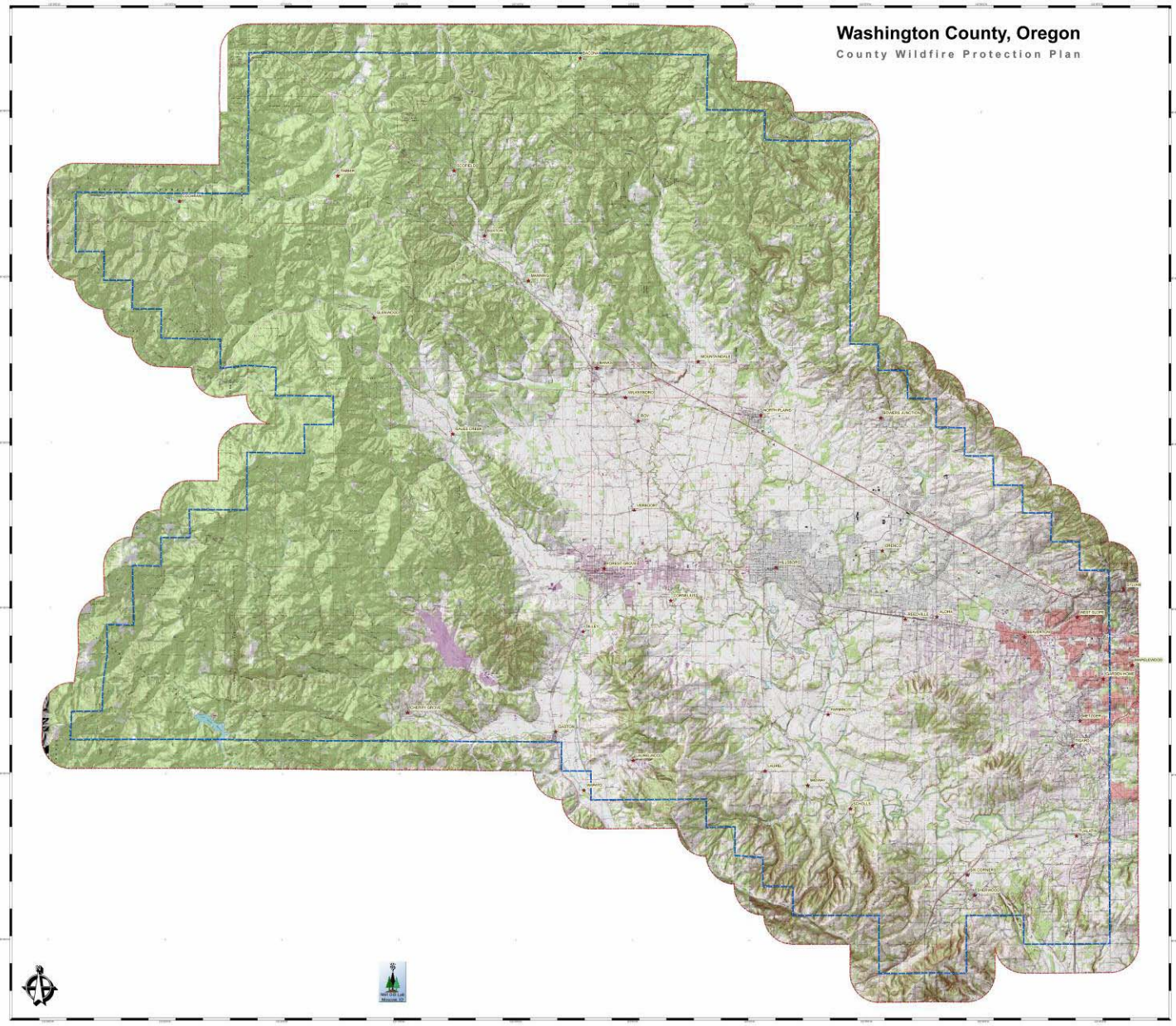
2005 Aerial Imagery of Washington County



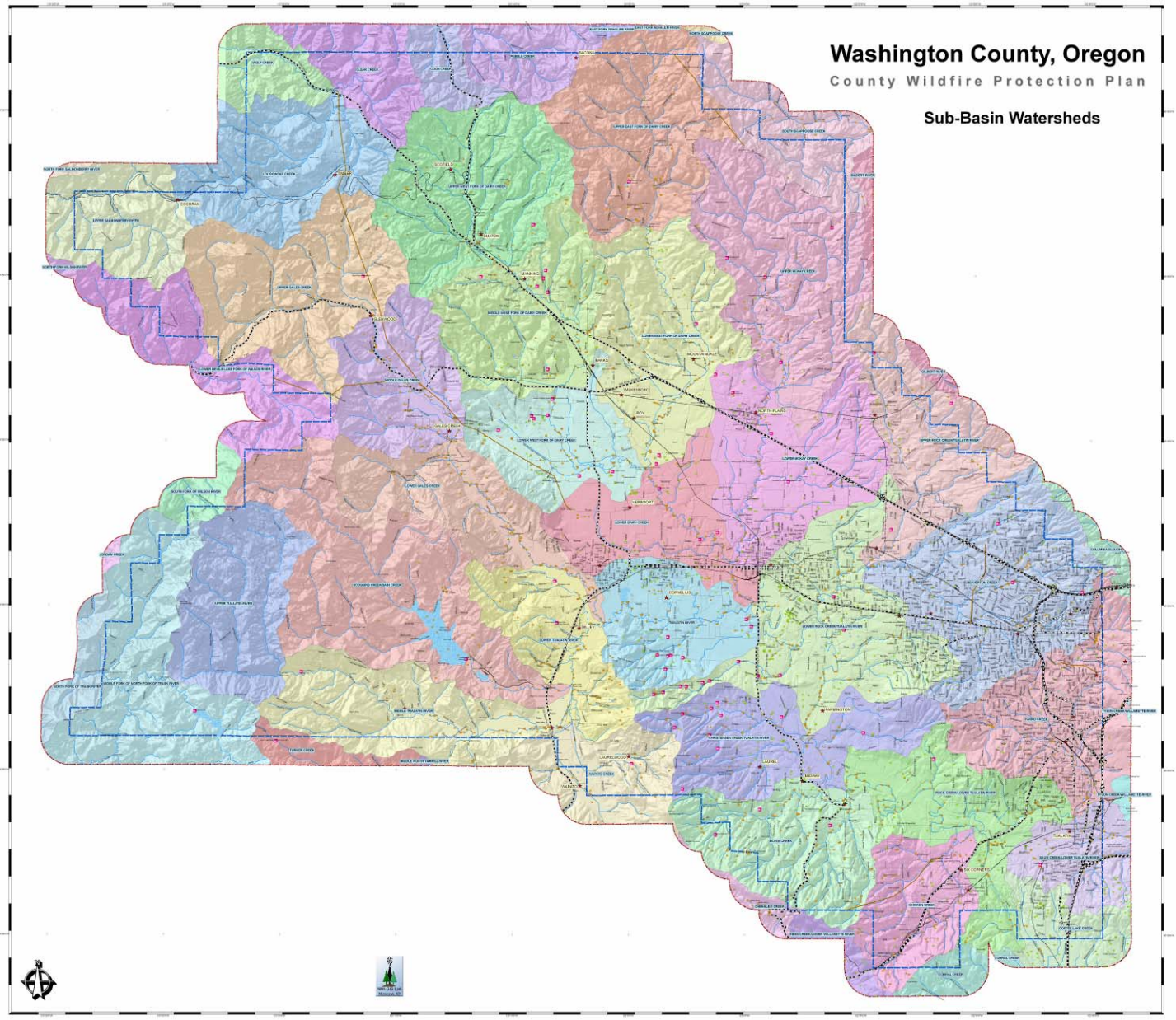
Land Ownership



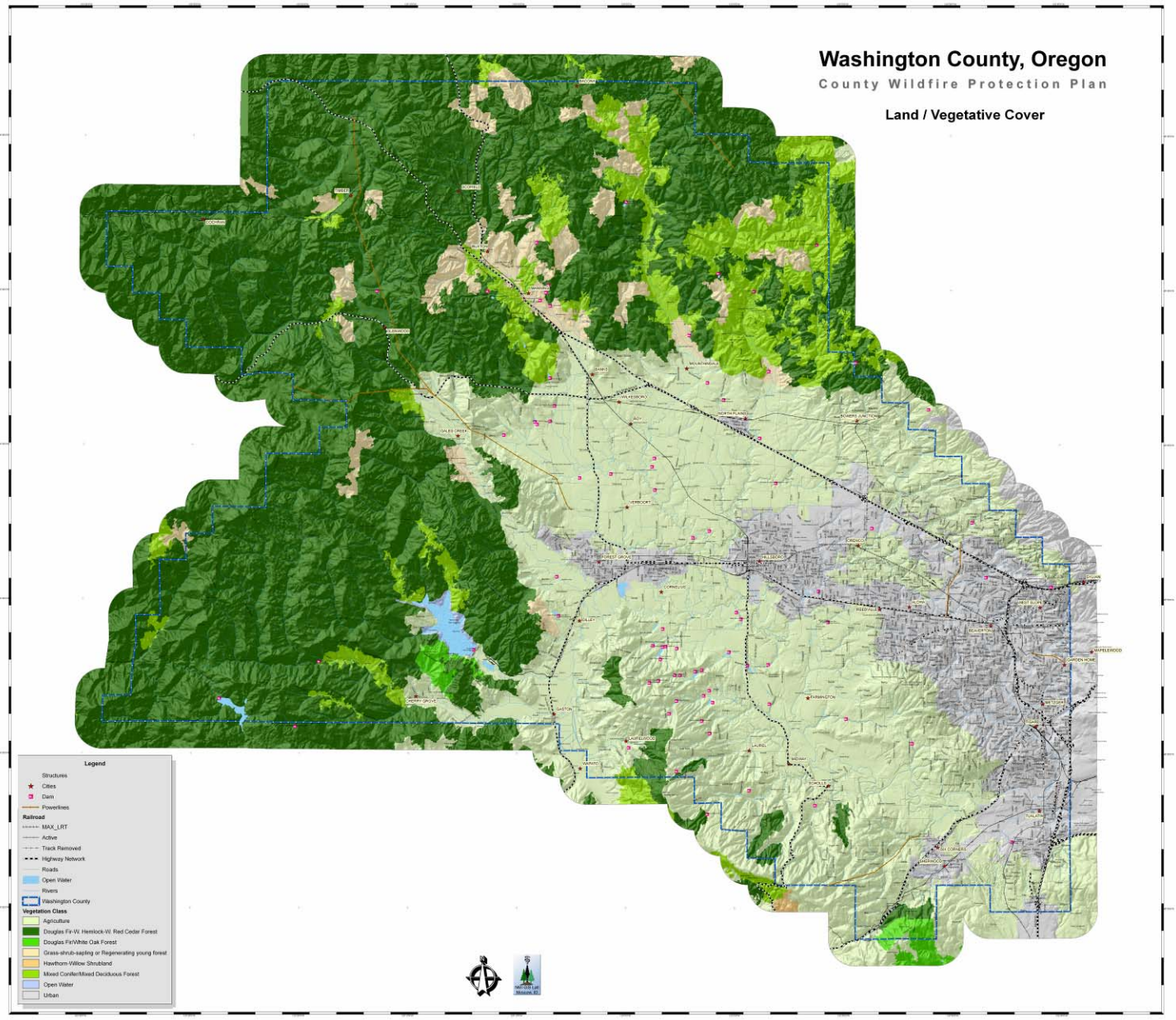
Topographic Map of Washington County



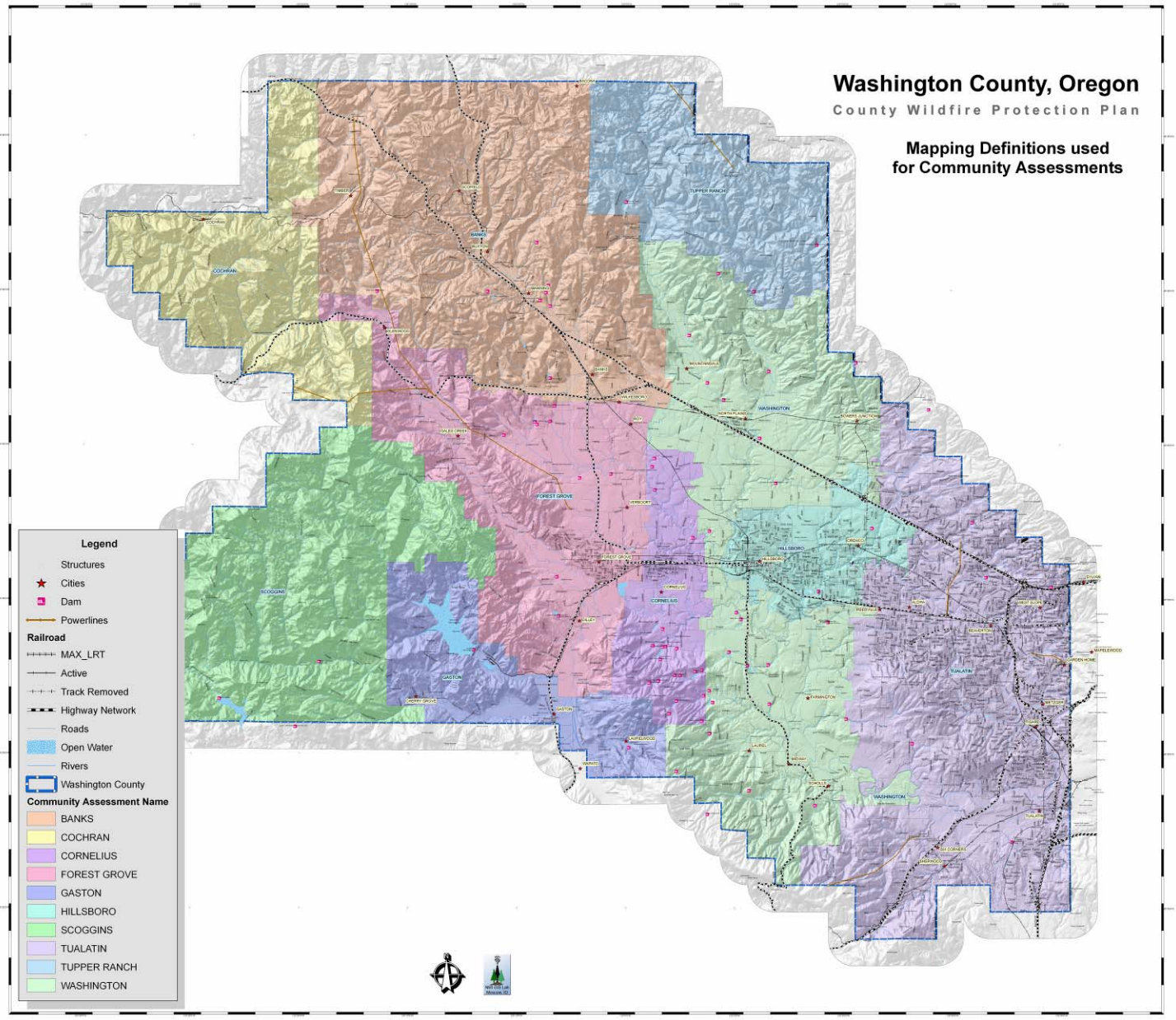
Sub-Basin Watersheds in Washington County



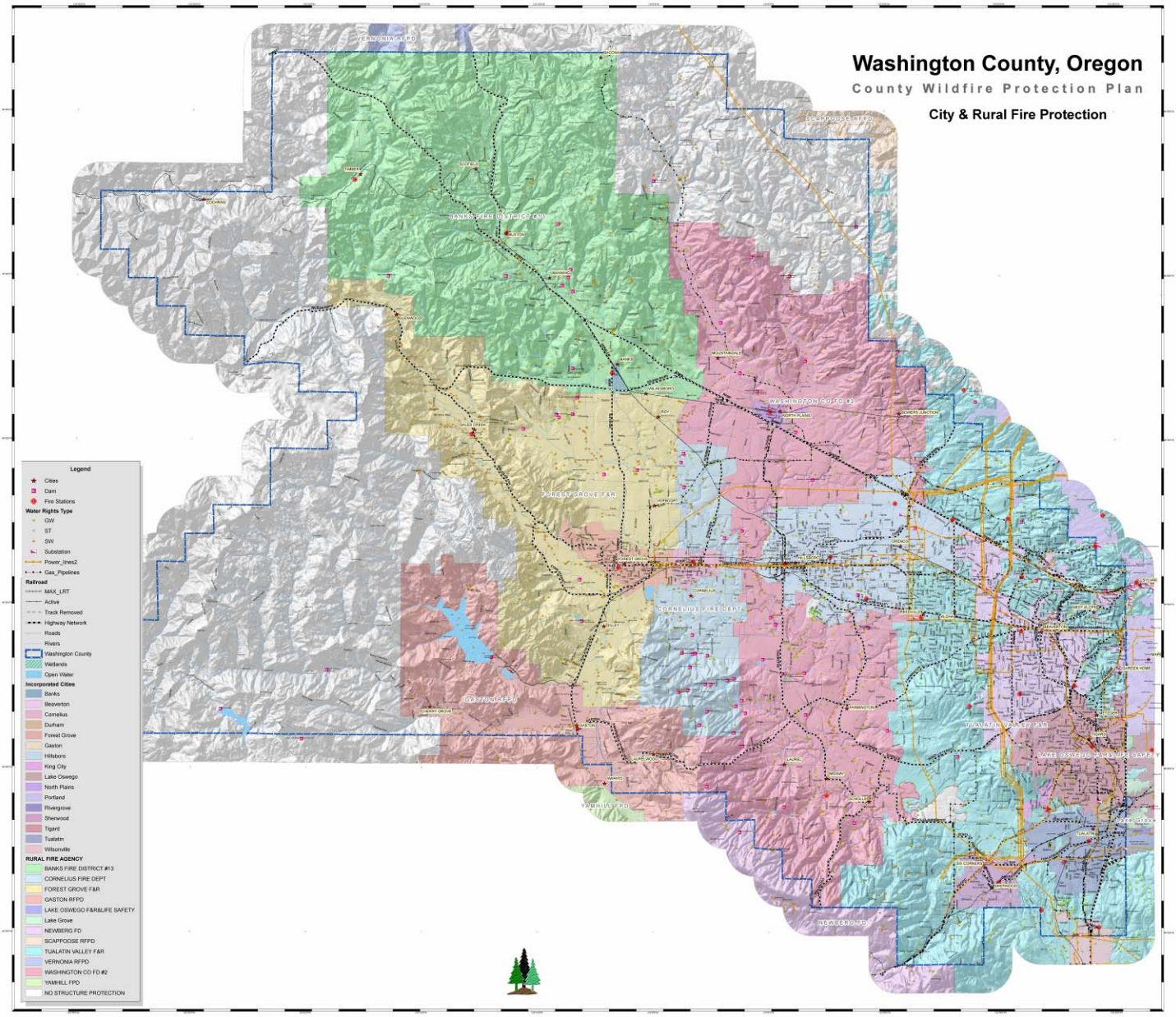
Vegetative Cover in Washington County



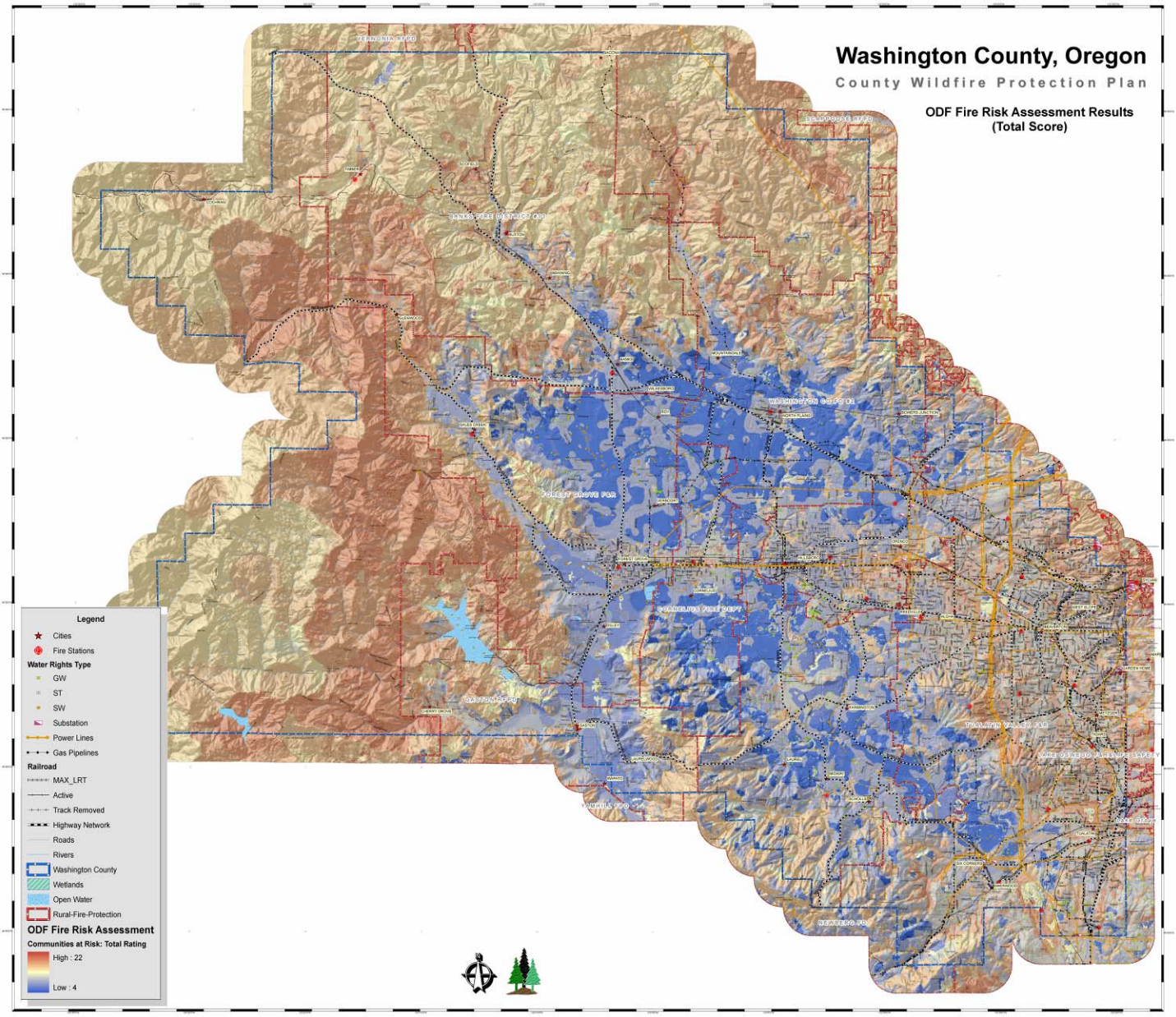
Washington County Community Assessments Mapping Definitions



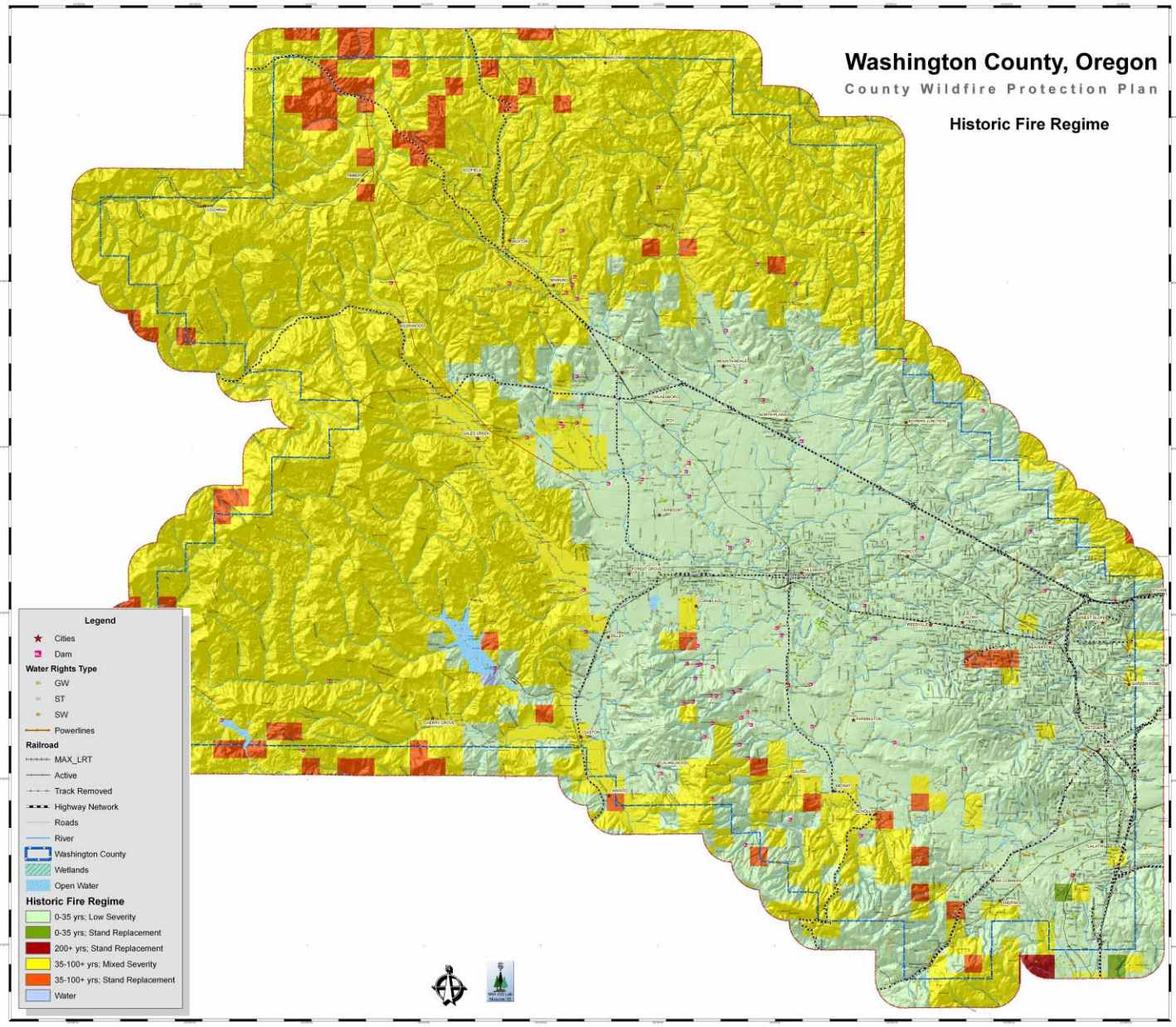
Washington County City and Rural Fire Protection



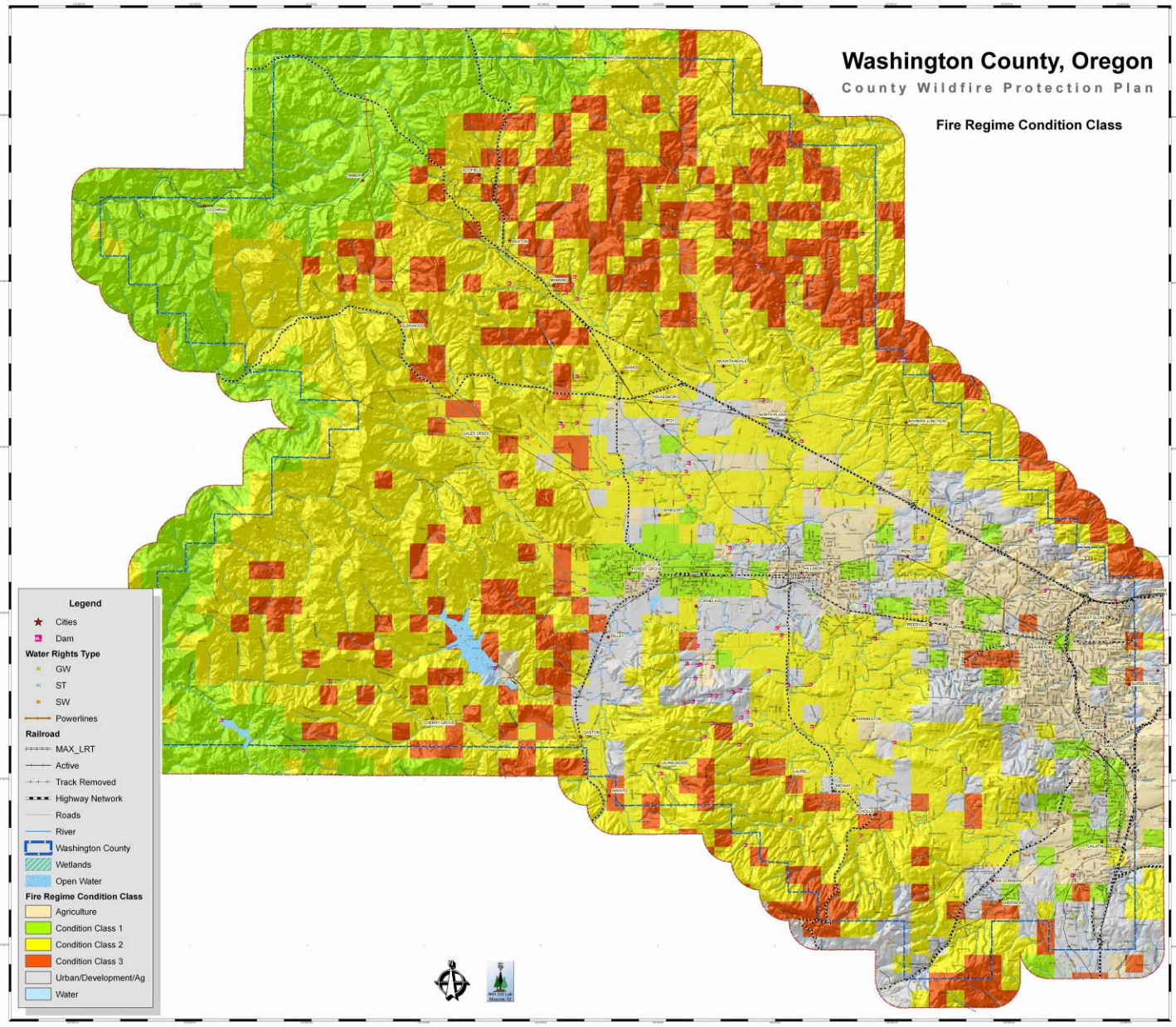
Oregon Department of Forestry Risk Assessment Results



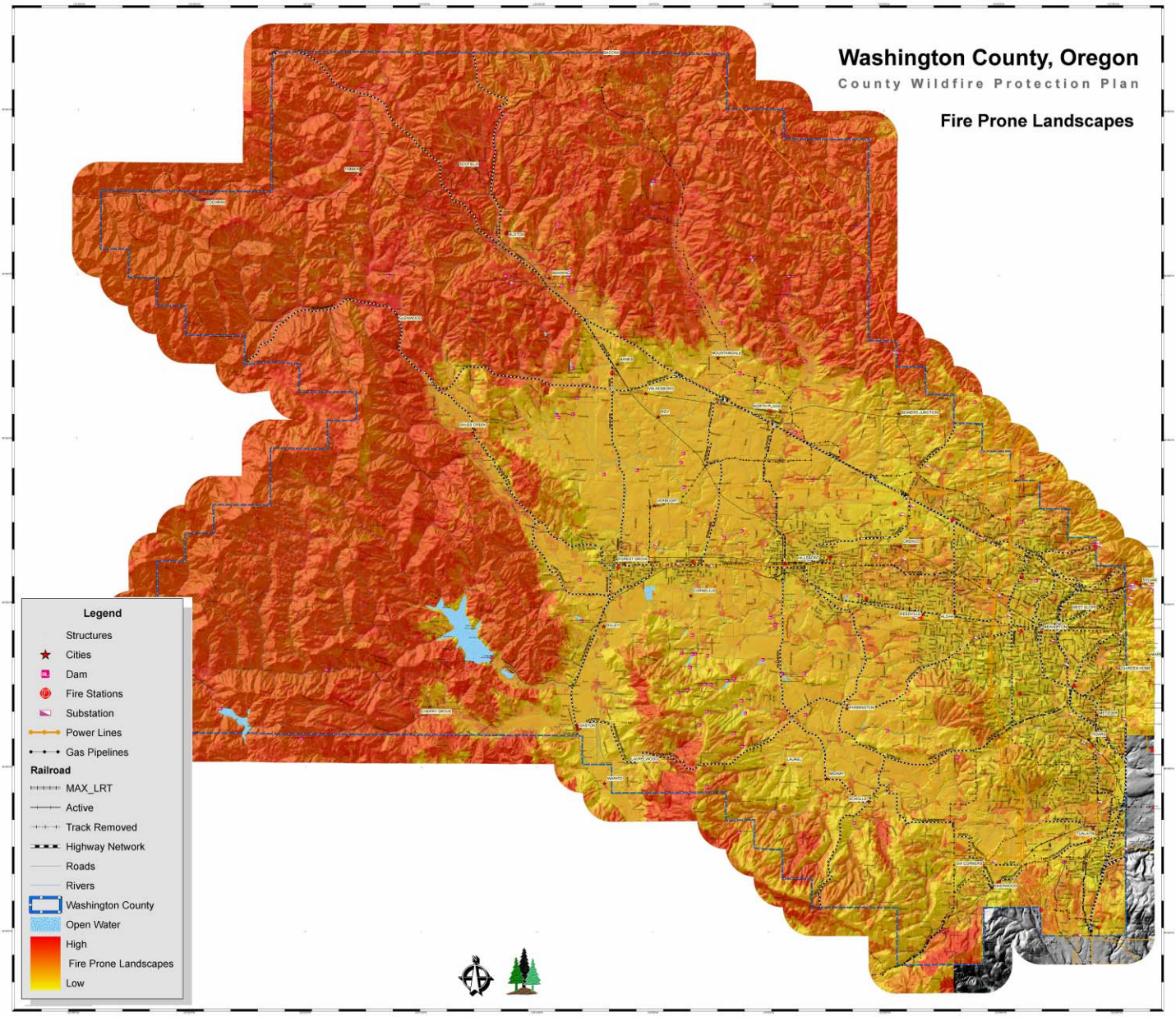
Historic Fire Regime



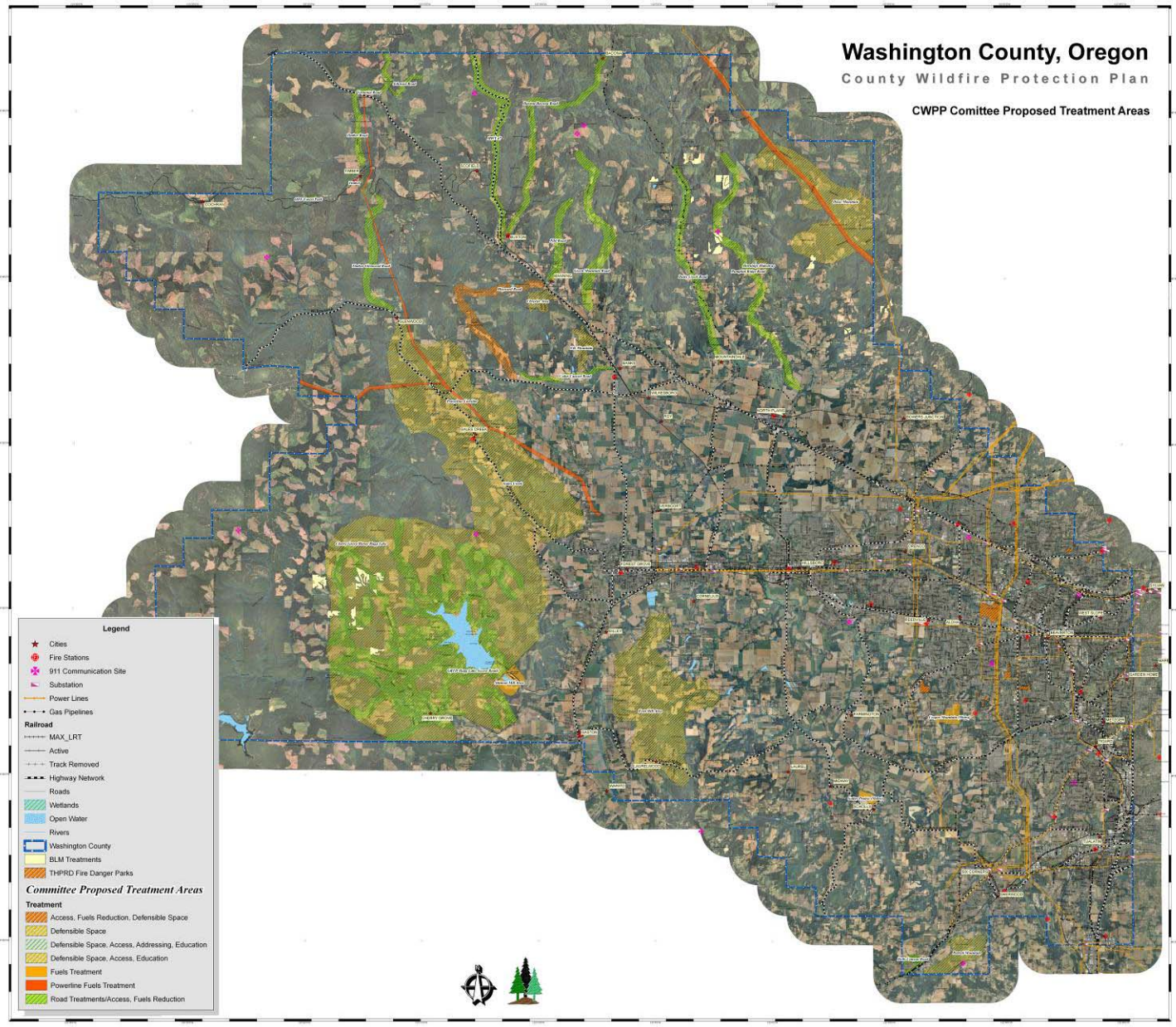
Fire Regime Condition Class



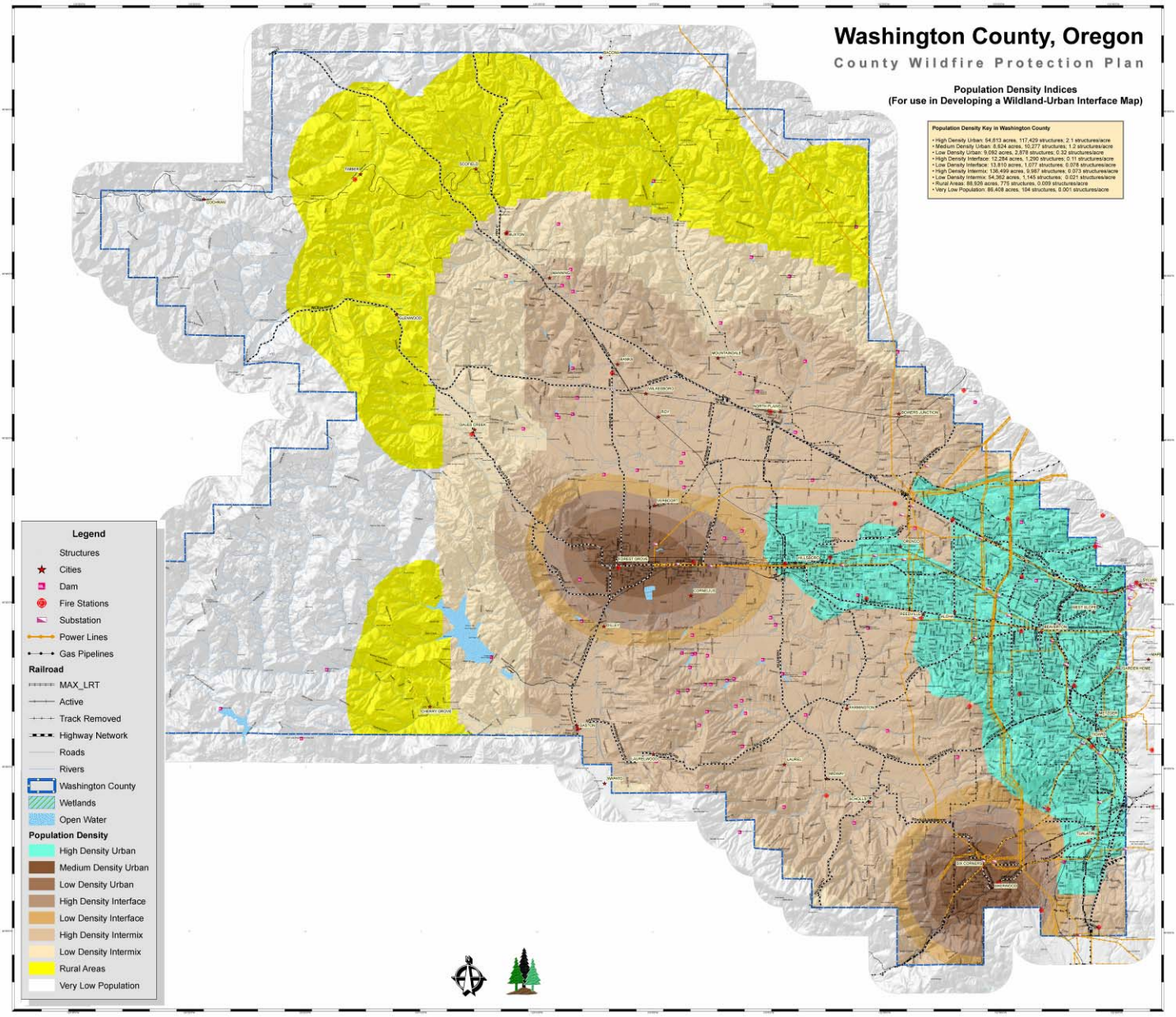
Fire Prone Landscapes



Proposed Treatment Areas in Washington County



Wildland-Urban Interface and Significant Infrastructure



Appendix II

Public Mail Survey

Public Letter #1

sent on February 1, 2007 with a letter and survey

Washington County Community Wildfire Protection Plan Survey

Dear Washington County Resident:

Thank you for taking a few minutes of your time to read and respond to this short wildfire protection survey. As a resident of Washington County, I'm sure you know that many areas in the urban-rural interface are at risk from wildland fires. We would like you to join us in taking a proactive role in mitigating future wildfire-caused casualty losses.

The Washington County Fire Defense Board, which is comprised of the county's local fire agencies, is working with the Oregon Department of Forestry, the Office of Consolidated Emergency Management, and the Board of County Commissioners, to develop a Washington County **Community Wildfire Protection Plan**. The County has contracted with Northwest Management, Inc., to prepare the plan and the Fire Defense Board has formed a multi-agency planning committee to work with the contractor on the plan development process.

Northwest Management's work will include developing improved fire ignition predictive models, locating and identifying high risk landscape characteristics, proposing improved land management practices to reduce fire rate-of-spread on forest land, and making recommendations for rural and urban-interface property owners about the creation of wildland fire defensible zones around homes and other buildings. It is with the last of these efforts that your help is requested.

Please complete the attached survey about your home's defensible space in the case of wildland fire. The questionnaire will help us identify key factors that place your home and other buildings at greatest risk and assist with development of wildfire mitigation strategies and actions that may lead to reducing the risk to your home and the broader community. Your response will be kept completely confidential and released only in aggregated form.

During development of the plan, Northwest Management will be completing some very advanced mapping of Washington County. The mapping effort will include aerial photography. ***We would be pleased to send you a FREE 17"x 17" aerial photograph of Washington County*** as a small token of our appreciation for your assistance with the project. The photograph will be printed in high resolution and be sent directly to you! When you complete your survey, simply check the "Yes, send me a photograph!" box on the back page and we will custom color print the photograph for you and send it at no charge.

Thank you for your assistance. If you have any questions about the project or the survey please contact Scott Porter, director of the Office of Consolidated Emergency Management, at 503-642-0371 or scott@ocem.org, or Bill Schlosser at Northwest Management, Inc. in Moscow, Idaho, at 208-883-4488 or schlosser@consulting-foresters.com.

Sincerely,

Chris Asanovic, Chief
Cornelius Fire Department
Chair, Washington County Fire Defense Board

Community Wildfire Protection Plan

Public Survey

1. Do you own a home in Washington County?

   - O Yes
   - O No

2. Is this your primary residence?

   - O Yes
   - O No

3. Which community do you live closest to?

   _____

4. Does your area have 911 emergency telephone service?

   - O Yes
   - O No

5. Is your home protected by a local fire agency (city department or rural fire district)?

   - O No
   - O Yes. If yes, what is the fire response time to your home?
     - O Under 10 minutes
     - O 10 – 20 minutes
     - O 20 – 30 minutes
     - O 30 – 45 minutes
     - O More than 45 minutes

6. What type of roof does your home have (please mark one):

   - O Composite
   - O Wooden shake (shingles)
   - O Ceramic tiles
   - O Aluminum, tin, or other metal
   - O Other (please indicate: _____)

7. How many trees are within 250 feet of your home?

   - O None
   - O Fewer than 10
   - O Between 10 and 25
   - O More than 25

8. How many trees are within 75 feet of your home?

   - O None

- O Fewer than 10
- O Between 10 and 25
- O More than 25

9. Do you have a lawn surrounding your home?

   - O No
   - O Yes. If yes, is it kept green and trimmed all summer?
     - O No
     - O Yes

10. How long is your driveway, from the main public road to your home parking area? Please indicate distance units in feet or miles.

    _____ O Feet

    O Miles

11. If your driveway is over 400 feet long, does it have turnouts that would allow two large trucks to pass each other?

    - O No
    - O Yes

12. What type of surfacing does your driveway have?

    - O Dirt
    - O Gravel/rock
    - O Paved

13. If the primary access to your home were cut off because of a wildfire, would you have an alternative escape route?

    - O No
    - O Yes

14. Please indicate which of the following items you have available at or near your home that could be used in fighting a wildland fire that threatens your home (mark all that apply)

    - O Hand tools (shovel, axe, etc.)
    - O Portable water tank
    - O Fixed/Stationary water tank
    - O Nearby pond, lake, swimming pool, or stream water supply
    - O Water pump and fire hose
    - O Well or cistern
    - O Equipment suitable for creating fire breaks (bulldozer, cat, farm tractor, etc.)

15. Use the exercise below to assess your home's fire risk rating:

Fuel Hazard Rating Worksheet

Circle the rating in each category that best describes your home

		Rating
Fuel Hazard (within 200 feet of structures)	Small, light fuels (grasses, forbs, weeds, shrubs)	1
	Medium size fuels (brush, large shrubs, small trees)	2
	Heavy, large fuels (woodlands, timber, heavy brush)	3
Slope Hazard (within 200 feet of structures)	Flat to Mild slopes (0-5%)	1
	Moderate slope (6-20%)	2
	Steep Slopes (21-40%)	3
	Extreme slopes (41% and greater)	4
Structure Hazard	Noncombustible roof and noncombustible siding materials	1
	Noncombustible roof and combustible siding material	3
	Combustible roof and noncombustible siding material	7
	Combustible roof and combustible siding materials	10
Additional Factors (select all that apply)	Rough topography that contains several steep canyons or ridges	+2
	Areas having history of higher than average fire occurrence	+3
	Areas exposed to severe fire weather and strong winds	+4
	Areas with existing fuel modifications or usable fire breaks	-3
	Areas with local facilities (water systems, rural fire districts, dozers)	-3

Calculate your risk

Fuel hazard _____ x Slope Hazard _____ = _____

Structural hazard + _____

Additional factors (+ or -)_____

Total Hazard Points = _____

Extreme Risk = 26 or more points

High Risk = 16-25 points

Moderate Risk = 6-15 points

Low Risk = 6 or less points

16. Do you conduct a periodic fuels reduction program near your home site such as clearing and removing brush or trimming trees?

    O No

    O Yes

17. Do livestock (cattle, horses, sheep) graze the grasses and shrubs around your home?

    O No

    O Yes

18. If offered in your area, would members of your household attend a free, or low cost, half-day training seminar designed to teach homeowners in the rural-urban interface how to improve the defensible space surrounding their home and adjacent outbuildings?

    O No

    O Yes

19. How do you feel fire mitigation projects should be **funded** in the areas surrounding homes, communities, and infrastructure such as power lines and major roads?

	Mark the boxes that best match to your preference		
	100% Public Funding	**Cost-Share (Public & Private)**	**Privately Funded (Owner or Company)**
Home Defensibility Projects	O	O	O
Community Defensibility Projects	O	O	O
Infrastructure Projects **Roads, Bridges, Power Lines, Etc.**	O	O	O

Thank you very much for completing this survey and sending it back to us. This information will be combined with other data to assess the greatest threats to homes and adjacent buildings where hazards are common.

Please put the completed survey in the provided self-addressed envelope and place it in the mail. As a token of appreciation for completing and returning this survey, we would like to send you a detailed aerial photograph of Washington County. Please indicate below if you would like to receive a **free** photograph!

□ Yes, please send me a photograph!

□ No, thank you.

Public Letter #2

sent as a postcard on February 9, 2007

February 9, 2007

Dear Washington County Resident:

About a week ago, we mailed you a letter and a brief survey concerning the wildfire situation in your community. That survey is instrumental to the success of the Community Wildfire Protection Plan we are developing in conjunction with the Washington County Fire Defense Board, which is comprised of the county's local fire agencies, and with the Oregon Department of Forestry, the Office of Consolidated Emergency Management, and the Board of Commissioners. We have received responses from many families in the area and we wish to extend our thanks and appreciation to everyone who has participated. However, we still have not received completed surveys from many homes in the region. If you have not returned the completed survey to us yet, please take a few minutes to complete the survey and return it in the self-addressed envelope provided with the letter.

Your responses are very important to this effort which will recommend the location and type of fire mitigation projects to be implemented in the area of your home. If you have any questions about this project or this survey please contact Scott Porter, director of the Office of Consolidated Emergency Management at 503-642-0371 or scott@ocem.org or contact Bill Schlosser at Northwest Management, Inc. in Moscow, Idaho at 208-883-4488. If you did not receive my original letter, or if you misplaced your survey, you can request a new one at one of the numbers above.

Thank you for your time and your assistance with this project!

Chris Asanovic, Chief

Cornelius Fire Department

Chair, Washington County Fire Defense Board

Public Letter #3

Sent on February 20, 2007 and included a replacement survey (not included here).

Washington County Community Wildfire Protection Plan Survey

Dear Washington County Resident:

Thank you for taking some of your time to read and respond to this short inquiry. About two weeks ago, we sent you a letter and package of materials much like this one. In it, we asked if you would please assist our efforts by reading, filling out, and returning a survey concerning the **Washington County Community Wildfire Protection Plan.** As a resident of Washington County, I'm sure you know that many areas in the urban-rural interface are at risk from wildland fires. We would like you to join us in taking a proactive role in mitigating future wildfire-caused casualty losses.

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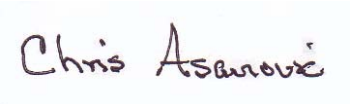
During development of the plan, Northwest Management will be completing some very advanced mapping of Washington County. The mapping effort will include aerial photography. ***We would be pleased to send you a FREE 17"x 17" aerial photograph of Washington County*** as a small token of our appreciation for your assistance with the project. The photograph will be printed in high resolution and be sent directly to you! When you complete your survey, simply check the "Yes, send me a photograph!" box on the back page and we will custom color print the photograph for you and send it at no charge.

Thank you for your assistance. If you have any questions about the project or the survey please contact Scott Porter, director of the Office of Consolidated Emergency Management, at 503-642-0371 or scott@ocem.org, or Bill Schlosser at Northwest Management, Inc. in Moscow, Idaho, at 208-883-4488 or schlosser@consulting-foresters.com.

Sincerely,



Chris Asanovic, Chief
Cornelius Fire Department
Chair, Washington County Fire Defense Board

Cornelius Fire Department Survey Distribution

The Cornelius Fire Department staff distributed the Washington County public survey door-to-door throughout their district. The results from these surveys have been tabulated separately from the overall Washington County survey and are reported below in the same format.

Survey Results

98% of respondents correctly identified that they have emergency telephone 911 services in their area. When asked if their home was protected by a local fire department, all accurately indicated that they were. 14% of respondents said that the average response time by the Cornelius Fire Department to their home was less than 10 minutes, 71% thought the average response time was between 10 and 20 minutes, 14% of respondents thought it would take within 20 to 30 minutes, and 0% thought it would take 30 to 45 minutes.

Respondents were asked to indicate the type of roofing material covering the main structure of their home. Approximately 79% of respondents indicated their homes were covered with a composite material (asphalt shingles). About 15% indicated their homes were covered with a metal (e.g., aluminum, tin) roofing material, and 6% of the respondents indicated they have a wooden roof (e.g. shake, shingles).

When asked if they have trees within 250 feet of their home, 0% indicated their were none, 24% said less than 10, 20% said between 10 and 25 trees, and 57% indicated more than 25 trees. When asked how many trees were within 75 feet of their home, 0% again said none, 34% said less than 10, 49% said between 10 and 25, and 17% indicated more than 25. 87% of respondents replied that they had a lawn and 89% of those said they kept it green year round.

The average driveway length of respondents to the survey was 1,115 feet long (.2 miles). The longest reported was one mile. Of those respondents (62%) with a driveway over 400 feet long, 45% do not have turnouts allowing two vehicles to pass. 4% of those respondents with a driveway indicated having a dirt surface, while 67% had gravel or rock and 28% had a paved driveway. Approximately 57% of the respondents indicated an alternate escape route was available in an emergency which cuts off their primary driveway access.

100% of respondents indicated they have tools to use against a wildfire that threatens their home.

Percent of homes with indicated fire fighting tools in Washington County.
98% – Hand tools (shovel, axe, etc.)
17% – Portable water tank
30% – Fixed/Stationary water tank
43% – Pond, lake, swimming pool, or stream water supply close
9% – Water pump and fire hose
87% – Well or cistern
46% – Equipment suitable for creating fire breaks (bulldozer, cat, farm tractor, etc.)

Respondents were asked to complete a fuel hazard rating worksheet to assess their home's fire risk rating. The following is an example of the worksheet and a summarization of responses.

Circle the ratings in each category that best describes your home.

Fuel Hazard Rating Worksheet		Rating	Results
Fuel Hazard	Small, light fuels (grasses, forbs, weeds, shrubs)	1	26%
	Medium size fuels (brush, large shrubs, small trees)	2	35%
	Heavy, large fuels (woodlands, timber, heavy brush)	3	39%
Slope Hazard	Mild slopes (0-5%)	1	24%
	Moderate slope (6-20%)	2	61%
	Steep Slopes (21-40%)	3	7%
	Extreme slopes (41% and greater)	4	9%
Structure Hazard	Noncombustible roof and noncombustible siding materials	1	7%
	Noncombustible roof and combustible siding material	3	59%
	Combustible roof and noncombustible siding material	7	7%
	Combustible roof and combustible siding materials	10	28%
Additional Factors	Rough topography that contains several steep canyons or ridges	+2	Average -0.2 pts
	Areas having history of higher than average fire occurrence	+3	
	Areas exposed to severe fire weather and strong winds	+4	
	Areas with existing fuel modifications or usable fire breaks	-3	
	Areas with local facilities (water systems, rural fire departments, dozers)	-3	

Calculating your risk

Values below are the average response value to each question for those living in both rural and urban areas.

Fuel hazard	2.1	x Slope Hazard 2.0	= 4.2
Structural hazard	+	5.1	
Additional factors	(+ or -)	-0.2	
Total Hazard Points	=	9.1	

Percent of respondents in each risk category as determined by the survey respondents.
00% – Extreme Risk = 26 + points
36% – High Risk = 16–25 points
49% – Moderate Risk = 7–15 points
36% – Low Risk = 6 or less points

Respondents were asked a series of questions regarding mitigation activities they had recently done or currently do on their property. The first question asked if they conducted a periodic fuels reduction program near their home or farmstead; 87% said that they did. Respondents were also asked if livestock was grazed around their home or farmstead and 30% indicated that there was.

Finally, respondents were asked “If offered in your area, would members of your household attend a free or low cost, one-day training seminar designed to share with homeowners how to reduce the potential for casualty loss surrounding your home?” Approximately 57% of respondents indicated a desire to participate in this type of training.

Homeowners were also asked, “How hazard mitigation projects should be funded in the areas surrounding homes, communities, and infrastructure such as powerlines and major roads?”

Public Opinion of Hazard Mitigation Funding Preferences.

	100% Public Funding	Cost-Share (Public & Private)	Privately Funded (Owner or Company)
Home Defensibility Projects	20%	53%	22%
Community Defensibility Projects	59%	39%	0%
Infrastructure Projects Roads, Bridges, Power Lines, Etc.	75%	23%	2%

Appendix III

Prioritization

The prioritization scheme for the following summary tables is given in Chapter 5 of the Community Wildfire Protection Plan. Planning projects and non-planning projects are scored on slightly different criteria. Each action item was scored in an Excel-based spreadsheet using the following forms.

X.X. Example Action Item for a Planning Project.

	Project Type: Planning Project	
Item	**Criteria**	**Score**
1	Benefit/Cost	10
2	Vulnerability of the community or communities	10
3	Potential for repetitive loss reduction	5
4	Potential to mitigate hazards to future development	5
	Total	**30**
	Project Ranking Priority Score	**High**

X.X: Example Action Item for a Non-Planning Project.

	Project Type: Implementation Project (Non-Planning)	
Item	**Criteria**	**Score**
	Project Cost	$ 307,000
	Property Benefit	$ 10,728,200
1	Benefit / Cost Score	10
2	Population Benefit	10
3	Property Benefit Score	10
4	Economic Benefit	10
5	Project Feasibility (environmentally, politically, socially)	5
6	Hazard Magnitude/Frequency	5
7	Potential for repetitive loss reduction	5
8	Potential to mitigate hazards to future development	5
9	Potential project effectiveness and sustainability	5
	Total	**65**
	Project Ranking Priority Score	**High**

Prioritization of Community Wildfire Protection Plan Action Items

Prioritization of action items recommended in the Community Wildfire Protection Plan occurs at the end of the committee planning process. All recommendations for action items have been carefully reviewed by the committee and then presented to the public. The following table is a summary of action item scores resulting from the prioritization scheme as outlined in Chapter 5 of the Community Wildfire Protection Plan.

Planning Projects

Summary of Prioritization Scores for CWPP Planning Projects

	Point Values					
Prioritization Factors →						
↓ Action Item ↓	Benefit / Cost	Vulnerability of Communities	Potential for Repetitive Loss Reduction	Potential to mitigate for Future Development	Total	Ranking
5.1.a	10	7	4	5	26	High
5.1.b	10	9	5	5	29	High
5.1.c	10	7	5	5	27	High
5.1.d	10	7	5	5	27	High
5.1.e	10	7	5	5	27	High
5.1.g	10	10	5	5	30	High
5.1.h	10	7	5	5	27	High
5.1.i	10	7	5	5	27	High
5.1.j	10	7	5	5	27	High
5.1.k	10	9	5	5	29	High
5.1.l	10	10	5	5	30	High
5.2.a	10	7	4	3	24	High
5.3.a	10	7	5	5	27	High
5.4.e	10	7	5	5	27	High
5.4.m	10	9	4	5	28	High

Non-Planning Projects

Summary of Prioritization Scores for CWPP Non-Planning Action Items.

Prioritization Factors → / ↓ Action Item ↓	Point Values										
	Benefit / Cost	Population Benefit	Property Benefit	Economic Benefit	Project Feasibility	Magnitude / Frequency	Repetitive Loss Reduction	Mitigation Hazards for Future Development	Effectiveness / Sustainability	Total	Ranking
5.1.f	10	1	5	2	5	2	3	4	3	35	Medium
5.2.b	10	1	1	4	5	3	3	4	5	36	Medium
5.2.c	10	1	10	3	3	3	3	2	3	38	Medium
5.2.d	10	1	10	3	3	3	3	2	3	38	Medium
5.2.e	4	1	10	3	2	3	3	2	3	31	Medium
5.2.f	10	1	10	3	3	3	4	3	3	40	High
5.3.b	10	2	10	6	4	5	5	5	5	52	High
5.3.c	6	1	4	4	4	3	3	2	4	31	Medium
5.3.d	10	1	0	3	5	3	4	1	4	31	Medium
5.4.a	5	5	7	3	4	3	4	5	4	41	High
5.4.b	10	5	7	2	4	3	3	4	4	42	High
5.4.c	10	5	10	3	3	3	3	4	4	45	High
5.4.d	10	5	10	2	4	3	3	3	4	44	High
5.4.f	10	5	10	2	4	3	3	3	4	44	High
5.4.g	10	1	10	4	4	4	5	5	4	47	High
5.4.h	10	1	10	3	4	4	4	4	4	44	High
5.4.i	10	1	10	3	4	3	2	3	3	39	Medium
5.4.j	10	5	10	2	4	3	3	3	4	44	High
5.4.k	10	5	10	2	4	3	3	3	4	44	High
5.4.l	10	5	10	2	4	2	3	2	4	42	High

Proposed Projects

Summary of Scores for Home Defensible Space Projects

Summary of Prioritization Scores for CWPP Home Defensible Space Projects.

Prioritization Factors → / ↓ Action Item ↓	Point Values: Benefit / Cost	Population Benefit	Property Benefit	Economic Benefit	Project Feasibility	Magnitude / Frequency	Repetitive Loss Reduction	Mitigation Hazards for Future Development	Effectiveness / Sustainability	Total	Ranking
Hayward Road	3	7	2	4	4	3	4	2	4	33	Medium
Hornings Hideaway	1	7	0	4	4	3	4	2	4	29	Medium
Dixie Mtn	6	7	8	4	3	3	4	2	4	41	High
Timber	1	7	2	4	3	3	4	2	4	30	Medium
Gales Creek	4	7	10	4	2	3	4	2	4	40	High
Chrysler	4	7	3	4	4	3	4	2	4	35	Medium
Elk Mtn	8	7	10	4	3	3	4	2	4	45	High
Parrett Mtn	8	7	10	4	3	3	4	2	4	45	High
Fern Hill	10	7	10	4	2	3	4	2	4	46	High
Cherry Grove – Henry Hagg	1	7	2	4	2	3	4	2	4	30	Medium
Northstar Gould Lane	5	7	2	4	2	3	4	2	4	34	Medium
East Side Sellars Rd	6	7	6	4	2	3	4	2	4	38	Medium
Hidden Mountain	2	7	0	4	2	3	4	2	4	29	Medium

Summary of Scores for Community Defensible Zone Projects

Summary of Prioritization Scores for CWPP Community Defensible Zone Projects.

Prioritization Factors → / ↓ Action Item ↓	Point Values: Benefit / Cost	Population Benefit	Property Benefit	Economic Benefit	Project Feasibility	Magnitude / Frequency	Repetitive Loss Reduction	Mitigation Hazards for Future Development	Effectiveness / Sustainability	Total	Ranking
Dixie Mtn	2	5	6	4	3	3	3	4	3	32	Medium
Timber	0	5	1	4	3	3	3	4	3	27	Medium
Gales Creek	1	5	10	4	3	3	3	4	3	36	Medium

Summary of Prioritization Scores for CWPP Community Defensible Zone Projects.

Prioritization Factors →	Point Values										
↓ Action Item ↓	Benefit / Cost	Population Benefit	Property Benefit	Economic Benefit	Project Feasibility	Magnitude / Frequency	Repetitive Loss Reduction	Mitigation Hazards for Future Development	Effectiveness / Sustainability	Total	Ranking
Chrysler	0	5	2	4	4	3	3	4	3	28	Medium
Elk Mtn	2	5	3	4	3	3	3	4	3	36	Medium
Parrett Mtn	2	5	10	4	3	3	3	4	3	36	Medium
Fern Hill	1	5	10	4	3	3	3	4	3	36	Medium
Cherry Grove – Henry Hagg	0	5	2	4	3	3	3	4	3	27	Medium
Northstar Gould Lane	1	5	2	4	3	3	3	4	3	28	Medium
East Side Sellars Rd	1	5	4	4	3	3	3	4	3	30	Medium
Hidden Mountain	1	5	0	4	3	3	3	4	3	26	Medium

Summary of Scores for Fuels Reduction Projects

Summary of Prioritization Scores for CWPP Fuels Reduction Projects.

Prioritization Factors →	Point Values										
↓ Action Item ↓	Benefit / Cost	Population Benefit	Property Benefit	Economic Benefit	Project Feasibility	Magnitude / Frequency	Repetitive Loss Reduction	Mitigation Hazards for Future Development	Effectiveness / Sustainability	Total	Ranking
Stimson Mill	4	3	7	3	3	3	3	4	3	33	Medium
Power Line Corridor	0	5	1	6	3	4	5	4	4	32	Medium
ODF Forest Park	8	5	2	3	4	3	3	2	3	33	Medium

Summary of Scores for Roadside Fuels Treatment Projects

Summary of Prioritization Scores for CWPP Roadside Fuels Treatment Projects.

Prioritization Factors →	Point Values										
↓ Action Item ↓	Benefit / Cost	Population Benefit	Property Benefit	Economic Benefit	Project Feasibility	Magnitude / Frequency	Repetitive Loss Reduction	Mitigation Hazards for Future Development	Effectiveness / Sustainability	Total	Ranking
Hayward Road	1	7	10	3	3	3	4	4	3	38	Medium
Hells Canyon Road	5	7	6	3	4	3	4	4	3	38	Medium
Johnson Road	0	7	0	3	4	3	4	4	3	28	Medium
Vernonia Road	0	7	1	3	4	3	4	4	3	29	Medium
Timber Road	1	7	3	3	4	3	4	4	43	33	Medium
Cedar Canyon Road	2	7	10	3	4	3	4	4	3	40	High
Pihl Road	5	7	10	3	4	3	4	4	3	43	High
Timber – Glenwood Road	1	7	6	3	4	3	4	4	3	35	Medium
Buxton – Bacona Road	1	7	10	3	3	3	4	4	3	38	Medium
Dairy Creek Road	4	7	10	3	3	3	4	4	3	41	High
Highway 47	1	7	8	3	3	3	4	4	3	36	Medium
Green Mtn	3	7	10	3	3	3	4	4	3	40	High
Henry Hagg Access	1	7	10	3	2	3	4	4	3	37	Medium
Forest Park Access	10	7	10	3	4	3	4	4	3	48	High
Pumpkin Ridge Road	3	7	10	3	3	3	4	4	3	40	High
Northstar Gould Lane	5	7	10	3	3	3	4	4	3	42	High
East Side Sellars Rd	9	7	10	3	3	3	4	4	3	46	High
Hidden Mountain	1	7	2	3	3	3	4	4	3	31	Medium

Valuation Data

The following information has been used to help accurately illustrate the Benefit/Cost and Property Benefit criteria in the prioritization scheme used above. It has been included here to provide as much information as possible to the county, cities, fire departments, agencies, and others in their efforts to reduce wildfire risks in Washington County.

Strategic Planning Area

Strategic Planning Area Valuation Data.

SPA	Number of Structures	Number of Parcels	Total Assessed Value of Structures
Banks	1,921	3,025	$288,384,470
Cochran	-	30	$0
Cornelius	3,152	3,627	$447,856,700
Forest Grove	6,613	7,794	$1,084,907,730
Gaston	985	1,466	$145,792,860
Hillsboro	21,795	24,621	$9,033,718,780
Scoggins	6	107	$887,780
Tualatin Valley	105,029	115,885	$25,407,824,360
Tupper Ranch	133	399	$17,237,820
Washington	4,886	6,584	$979,003,440

CWPP Committee and Public Project Area Data

CWPP Project Area Valuation Data.

Project Name	Number of Structures	Number of Parcels	Total Assessed Value of Structures
Hayward Road	45	67	$4,457,360
Dixie Mountain	59	114	$17,575,480
Hornings Hideaway	2	3	$155,460
Timber	55	119	$4,107,840
East Side Sellers Rd	65	76	$12,135,380
Northstar Gould Lane	32	39	$5,346,210
Chrysler Area	41	60	$6,395,450
Elk Mountain	119	133	$26,427,470
Fern Hill Area	433	571	$66,672,470
Hidden Mountain	11	16	$847,430
Gales Creek	589	822	$89,422,480
Parrett Mountain	78	147	$28,793,560
Cherry Grove/Henry Hagg Lake	37	148	$4,779,930
Stimson Mill Area	17	24	$32,327,250
Powerline Corridor	16	44	$2,142,860
Buxton-Bacona Road	48	79	$4,496,350
Cedar Canyon Road	22	29	$3,485,290
Dairy Creek Road	77	99	$10,105,700
Green Mountain Road	50	66	$7,230,800
Highway 47	32	60	$2,969,750

CWPP Project Area Valuation Data.

Project Name	Number of Structures	Number of Parcels	Total Assessed Value of Structures
Johnson Road	1	1	$44,540
ODF Forest Park	0	1	$0
Pihl Road	43	51	$6,396,260
Pumpkin Ridge Road	82	104	$15,711,140
Timber Road	11	17	$1,206,550
Timber-Glenwood Road	16	29	$1,972,880
Vernonia Road	3	5	$259,210
Hells Canyon Road	17	21	$1,991,710
Henry Hagg Lake Access Roads	283	474	$28,868,020

Appendix IV

Washington County 2006 Resource List

Engines

Agency	*ID*	*Location*	*Pump Size*	*Tank Size*	*Pump & Roll*	*4x4*	*VHF*	*Type*	*Staffing*	*Status*
HFD	E-1	HM	1500	1000	Yes	No	Yes	I	4	Career
HFD	E-2	WH	1500	1000	Yes	No	Yes	I	4	Career
HFD	E-3	RA	1500	1000	Yes	No	Yes	I	4	Career
HFD	E-101	HM	1250	1000	Yes	No	Yes	I	Reserve	Reserve
HFD	E-102	WH	1250	1000	Yes	No	Yes	I	Reserve	Reserve
HFD	E-103	RA	1250	1000	Yes	No	Yes	I	Reserve	Reserve
HFD	E-104	PW	1500	1000	Yes	No	Yes	I	3-4'	Volunteer
HFD	BR-1	HM	390	350	Yes	Yes	Yes	III	2	Flex
WCFD #2	E192	MW	1250	1000	yes	no	yes	1	2	Career
WCFD #2	E194	MW	1250	1000	yes	no	no	1	Volunteer	Volunteer
WCFD #2	E171	NP	1500	1000	yes	no	yes	1	2	Career
WCFD #2	E173	NP	1250	1000	yes	no	no	1	Volunteer	Volunteer
WCFD #2	E175	NP	1250	1000	yes	no	no	1	Volunteer	Volunteer
WCFD #2	BR192	MW	300	500	yes	yes	yes	III	Volunteer	Volunteer
WCFD #2	BR177	NP	300	500	yes	yes	portable only	III	Volunteer	Volunteer
TVF&R	E60	CR	1500	750	No	No	Yes	I	4	Career
TVF&R	E362	AL	100	500	No	No	Yes	I	5	Volunteer
TVF&R	E363	SK	1500	750	Yes	No	Yes	I	4	Volunteer
TVF&R	E64	RC	1500	750	No	No	Yes	I	4	Career
TVF&R	E65	WS	1500	750	No	No	Yes	I	4	Career
TVF&R	E66	BR	1500	750	No	No	Yes	I	4	Career
TVF&R	E67	BM	1500	750	No	No	Yes	I	4	Career
TVF&R	E68	KR	1500	750	No	No	Yes	I	4	Career
TVF&R	E69	CM	1500	750	No	No	Yes	I	4	Career
TVF&R	E69R	CM	1250	1000	Yes	No	Yes	I	4	Reserve
TVF&R	E33	SH	1500	750	No	No	Yes	I	4	Career

TVF&R	E333	SH	1000	500	No	No	Yes	I	5	Volunteer
TVF&R	E34	TU	1500	750	No	No	Yes	I	4	Career
TVF&R	E35	KC	1500	750	No	No	Yes	I	4	Career
TVF&R	E51	TI	1500	750	No	No	Yes	I	4	Career
TVF&R	E351	TI	1000	500	No	No	Yes	I	5	Volunteer
TVF&R	E52	WI	1500	750	No	No	Yes	I	4	Career
TVF&R	E352	WI	1000	500	No	No	Yes	I	5	Volunteer
TVF&R	E53	PR	1500	750	No	No	Yes	I	4	Career
TVF&R	E57	MR	1500	750	No	No	Yes	I	4	Career
TVF&R	E58	BL	1250	750	No	No	Yes	I	4	Career
TVF&R	E59	WL	1250	750	No	No	Yes	I	4	Career
TVF&R	E90	WS	1500	750	No	No	Yes	I	5	Career
TVF&R	E91	ER	1500	750	No	No	Yes	I	6	Career
TVF&R	BR60	CR	95	300	Yes	Yes	Yes	VI	3	Career
TVF&R	BR62	AL	95	300	Yes	Yes	Yes	VI	3	Career
TVF&R	BR64	RC	95	300	Yes	Yes	Yes	VI	3	Career
TVF&R	BR69	CM	95	300	Yes	Yes	Yes	VI	3	Career
TVF&R	BR35	KC	95	340	Yes	Yes	Yes	VI	3	Career
TVF&R	BR52	WI	95	300	Yes	Yes	Yes	VI	3	Career
TVF&R	BR57	MT	95	300	Yes	Yes	Yes	VI	3	Career
TVF&R	BR358	BL	95	200	Yes	Yes	Yes	VI	3	Volunteer
FGF&R	421	FGM	1500	1000	Yes	No	Yes	I	4	
FGF&R	422	FGM	1250	1000	Yes	Yes	Yes	I	4	
FGF&R	423	FGM	1250	1000	Yes	No	Yes	I	4	
FGF&R	427	GCS	1000	1000	Yes	No	Yes	I	2	
FGF&R	428	GCS	1250	1000	Yes	No	Yes	I	4	
FGF&R	419	FGM	200	250	Yes	Yes	Yes	VI	1	
FGF&R	416	FGM	200	250	Yes	Yes	Yes	VI	1	
FGF&R	415	FGM	200	250	Yes	Yes	Yes	VI	1	
FGF&R	417	GCS	200	250	Yes	Yes	Yes	VI	4	
CFD	E-813	CO	1500	1000	Yes	No	Yes	I	4	Career/Volunteer
CFD	E-814	CO	1500	1000	Yes	No	Yes	I	4	Career/Volunteer
CFD	E-815	CO	1250	1000	Yes	No	Yes	I	4	Career/Volunteer
CFD	BR-8	CO	250	700	Yes	6X6	Yes	III	3	Career/Volunteer

CFD	810	CO	125	200	Yes	yes	Yes	VI	3	Career/Volunteer
CFD	BR-812	CO	125	250	Yes	yes	Yes	VI	3	Career/Volunteer
GRFD	E1171	Gstn	1250	1000	Yes	No	Yes	I	4	
GRFD	E1172	Gstn	1250	1000	Yes	No	Yes	I	4	
GRFD	E1172	Gstn	1250	1000	Yes	No	Yes	I	4	
GRFD	BR1120	Gstn	150	300	Yes	Yes	Yes	VI	2	
GRFD	BR1122	Gstn	150	200	Yes	Yes	Yes	VI	2	
BFD	E-13	Banks	1250	750	Yes	No	Yes	I	4	Flex
BFD	E-14	Buxton	1250	1000	Yes	No	Yes	I	4	Flex
BFD	E-15	Timber	1250	1000	Yes	No	Yes	I	4	Flex
BFD	E-16	Banks	1250	750	No	No	Yes	I	4	Flex
BFD	B-13	Banks	120	300	Yes	Yes	Yes	III	3	Flex
TOTAL WASHINGTON COUNTY ENGINES					**72**					

Trucks

Agency	*ID*	*Location*	*Aerial Length*	*Pump Size*	*Tank Size*	*Comment*	*Staffing*	*Status*
TVF&R	T67	BM	105	350	175	Straight ladder/All Steer	4	Career
TVF&R	T51	TI	100	150	150	Platform	4	Career
TVF&R	SQT62	AL	65	1500	500	Skyboom/All Steer	4	Career
TVF&R	SQT61	CH	65	1500	500	Skyboom/All Steer	4	Career
TVF&R	SQT56	ER	65	1500	500	Skyboom/All Steer	4	Career
TVF&R	SQT359	SS	50	1500	500	Squirt	4	Volunteer
HFD	T3	RA	102	300	500	Platform/2000GPM Waterway	4	Career
HFD	T103	RA	100			Seagraves Ladder	4	Reserve
FGF&R	T4	FGM	105	2000	300		5	
TOTAL WASHINGTON COUNTY TRUCKS					**9**			

Tenders

Agency	*ID*	*Location*	*Pump Size*	*Tank Size*	*Pump & Roll*	*4x4*	*VHF*	*Type*	*Staffing*	*Status*
TVF&R	WT62	AL	500	2400	No	No	Yes	II	2	Career

TVF&R	WT363	SK	750	2800	No	No	Yes	II	2	Volunteer
TVF&R	WT51	TI	750	2500	No	No	Yes	II	2	Career
TVF&R	WT33	SH	750	3000	No	No	Yes	II	2	Career
TVF&R	WT56	ER	750	3000	No	No	Yes	II	2	Career
TVF&R	WT52	WI	750	3000	No	No	Yes	II	2	Career
TVF&R	WT358	BL	750	3000	No	No	Yes	II	2	Volunteer
FGF&R	TW4	FGM	1000	3000	Yes	No	Yes	II	2	
FGF&R	TW7	FGM	1000	3000	Yes	No	Yes	II	2	
WCFD #2	WT19	MW	500	3000		no	portable only	2	Volunteer	
WCFD #2	WT17	NP	1000	3000		no	portable only	2	Volunteer	
HFD	WT 104	PW	500	2000				III		
CFD	WT-8	CO	900+	3000	Yes	No	Yes	II	2	Career/Volunteer
GRFD	WT11	102 E Main	500	3000	YES	NO	YES		2	
BFD	WT-13	Banks	800	3000	Yes	No	Yes	II	2	Flex
BFD	WT-14	Banks	800	3000	Yes	No	Yes	II	2	Flex

TOTAL WASHINGTON COUNTY TENDERS **16**

Rescues

Agency	*ID*	*Location*	*Type*	*Comments*	*Staffing*	*Status*
HFD	R-1	HM	ALS		2	
WCFD #2	R19	MW		Transportable		Volunteer
WCFD #2	R17	NP		4x4		Volunteer
TVF&R	R53	PR	Road Rescue	Licensed Oregon transportable Rescue	2	Career
TVF&R	R35	KC	Road Rescue	Licensed Oregon transportable Rescue	2	Career
TVF&R	R51	TI	Heavy Rescue		3	Career
FGF&R	R4	FGM	1		2	
FGF&R	417	GCS	2		2	
FGF&R	R4R	FGM	1		0	
CFD	R-8	CO	HEAVY RSQ	CAFS Foam, Hydraulic Vehicle Extrication, High PSI Airbags, 12" Partner Circular Saw, ALS Medical/Airway/Suction, Limited shoring plywood and cribbing equipment, 4000 watt generator with fixed and portable scene lighting, Cutting Torches (Light-Heavy Metal, Masonry, & Concrete)	5	Career/Volunteer

				Basic Rope Rescue, full Cutting/Chipping/Drilling Tools (3/8" - 6") ISO Support Vehicle (pile poles, ladders, hand tools)							
GRFD	R11	102 E Main				NO	YES			3	
BFD	R-13	Banks	ILS	Full set of extrication tools, air bags, and generator						2	Flex

TOTAL WASHINGTON COUNTY RESCUES **12**

Squads

Agency	*ID*	*Location*	*Comments*			*Staffing*	*Status*
TVF&R	S363	SK	Full rehab unit			2	Volunteer
TVF&R	S359	SS	Full rehab unit			2	Volunteer
TVF&R	S362	AL	MCI medical squad			2	Volunteer

Specialty

Agency	*ID*	*Location*	*Type*	*Comments*	*Staffing*	*Status*
HFD	L-3	RA	Light	Light Rig w/ generator	Volunteer/1	Flex
TVF&R	Van 362	AL		Support van		Volunteer
TVF&R	Van 363	SK		Support van		Volunteer
TVF&R	Van 351	TI		Support van		Volunteer
TVF&R	Van 333	SH		Support van		Volunteer
TVF&R	Van 352	WI		Support van		Volunteer
TVF&R	Van 358	BL		Support van		Volunteer
TVF&R	HM9	PR		State region 9 Haz Mat unit		Career
TVF&R	Support 9	TU		TVF&R Haz Mat support truck		Career
TVF&R	Trench 51	TI		Tractor/Trailer Trench Rescue Unit		Career
TVF&R	Dive 59	WL		Dive tow unit and 22' Rescue sled with twin 175 hp jets		Career
CFD	CAS-8	CO	Air Unit	8 x 6000 psi Cascade with 6000 psi compressor, 25,000 watt generator, on-board Restroom, Rehab supplies	2	Career/Volunteer

Appendix V

Potential Funding Sources

Assistance to Firefighters Grant

http://www.rkb.mipt.org/contentdetail.cfm?content_id=44122
To provide direct assistance, on a competitive basis, to fire departments of a State or tribal nation for the purpose of protecting the health and safety of the public and firefighting personnel against fire and fire-related hazards.

Citizen Corps

http://www.rkb.mipt.org/contentdetail.cfm?content_id=56829
The purpose of the Citizen Corps Program is to supplement and assist State and local efforts to expand Citizen Corps. This includes Community Emergency Response Team (CERT) training, establishing Citizen Corps Councils and supporting the oversight and outreach ....

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

http://www.rkb.mipt.org/contentdetail.cfm?content_id=83219
To ensure that law enforcement and emergency responder agencies, departments, and task forces can acquire, through direct assistance, the specialized equipment and training they require to meet their homeland security mission.

Community Disaster Loans

http://www.rkb.mipt.org/contentdetail.cfm?content_id=44126
To provide loans subject to Congressional loan authority, to any local government that has suffered substantial loss of tax and other revenue in an area in which the President designates a major disaster exists. The funds can only be used to maintain ...

Disposal of Federal Surplus Real Property

http://www.rkb.mipt.org/contentdetail.cfm?content_id=43990
To dispose of surplus real property by lease, permits, sale, exchange, or donation.

Emergency Management Institute (EMI) Independent Study Program

http://www.rkb.mipt.org/contentdetail.cfm?content_id=44100
To enhance public and selected audience knowledge of emergency management practices among State, local and tribal government managers in response to emergencies and disasters. The program currently consists of 32 courses. They include IS-1, Emergency ....

Emergency Management Institute (EMI) Resident Educational Program

http://www.rkb.mipt.org/contentdetail.cfm?content_id=44102
To improve emergency management practices among State, local and tribal government managers, and Federal officials as well, in response to emergencies and disasters. Programs embody the Comprehensive Emergency Management System by unifying the ....

Emergency Management Institute Training Assistance

http://www.rkb.mipt.org/contentdetail.cfm?content_id=44098
To defray travel and per diem expenses of State, local and tribal emergency management personnel who attend training courses conducted by the Emergency Management Institute, at the Emmitsburg, Maryland facility; Bluemont, Virginia facility; and ....

Fire Management Assistance Grant

http://www.rkb.mipt.org/contentdetail.cfm?content_id=44124
To provide grants to states, Indian tribal governments and local governments for the mitigation, management and control of any fire burning on publicly (nonfederal) or privately owned forest or grassland that threatens such destruction as would ....

Buffer Zone Protection Program (BZPP)

http://www.rkb.mipt.org/contentdetail.cfm?content_id=135490
The FY 2006 BZPP provides funds to build capabilities at the state and local levels to prevent and protect against terrorist incidents primarily done through planning and equipment acquisition.

Chemical Sector Buffer Zone Protection Program (Chem-BZPP)

http://www.rkb.mipt.org/contentdetail.cfm?content_id=135466
The Chem-BZPP, provides funds to build capabilities at the State and local levels through planning and equipment acquisition.

Citizen Corps Support Program

http://www.rkb.mipt.org/contentdetail.cfm?content_id=135192
Support the mission to engage everyone in America in hometown security through the establishment and sustainment of Citizen Corps Councils throughout the United States and territories.

Hazardous Materials Planning and Training

http://www.rkb.mipt.org/contentdetail.cfm?content_id=133349
Hazmat Planning and Training grants to state, territory and native American Tribal grantees.

Homeland Security Grant Program (HSGP)

http://www.rkb.mipt.org/contentdetail.cfm?content_id=118605
Through the DHS National Preparedness Directorate, State and local organizations will receive approximately $2.5 billion in grant funding to build capabilities that enhance homeland security.

National Fire Academy Educational Program/Harvard Fellowship Grant

http://www.rkb.mipt.org/contentdetail.cfm?content_id=133343
Each fellowship enables a senior fire executive to attend and participate in the three-week "Senior Executives in State & Local Government Program" course that is held twice each year at Harvard University.

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

http://www.rkb.mipt.org/contentdetail.cfm?content_id=133340
The purpose of the Staffing for Adequate Fire and Emergency Response (SAFER) grants is to help fire departments increase their cadre of firefighters.

Hazard Mitigation Grant Program

http://www.rkb.mipt.org/contentdetail.cfm?content_id=44130
To provide states and local governments financial assistance to implement measures that will permanently reduce or eliminate future damages and losses from natural hazards through safer building practices and improving existing structures and ....

Homeland Defense Equipment Reuse Program - HDER

http://www.rkb.mipt.org/contentdetail.cfm?content_id=83222
The goal of the HDER Program is to provide excess radiological detection instrumentation and other equipment, as well as training and long-term technical support, at no cost to emergency Responder agencies nationwide.

National Fire Academy Training Assistance

http://www.rkb.mipt.org/contentdetail.cfm?content_id=44104
To provide travel stipends to students attending Academy courses.

Pre-Disaster Mitigation Program

http://www.rkb.mipt.org/contentdetail.cfm?content_id=102626
The PDM program will provide funds to states, territories, Indian tribal governments, and communities for hazard mitigation planning and the implementation of mitigation projects prior to a disaster event.

Rural Fire Assistance (RFA)

http://www.rkb.mipt.org/contentdetail.cfm?content_id=97736
The RFA program provides cost-share grants for equipment, training, and fire prevention and mitigation activities for those rural/Volunteer fire departments (RFDs) that protect rural communities.

Wildland-Urban Interface Community and Rural Fire Assistance

http://www.rkb.mipt.org/contentdetail.cfm?content_id=43914
To implement the National Fire Plan and assist communities at risk from catastrophic wildland fires by providing assistance in the following areas: Provide community programs that develop local capability including; assessment and planning, ...

Appendix VI

Training Programs

Program: **National Fire Academy Educational Program**

Source: National Fire Academy, U.S. Fire Administration, FEMA

Description: Provides training to people Responsible for fire prevention and control. Training is provided at the Resident facility in Emmitsburg, Maryland, and travel stipends are available for attendees. Courses are available to any individual who is a member of a fire department; attendees are selected based on need and benefit to be derived by their community.

More info: www.fema.gov

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

Source: EMI Readiness, Response and Recovery Directorate, FEMA

Description: The program currently provides 32 courses in emergency management practices to assist local governments with Response to emergencies and disasters. Several courses could apply to fires in rural interface areas.

More info: www.fema.gov

Research Programs

Program: **Forestry Research** (Forest and Rangeland Renewable Resources Research Act)

Source: U.S. Forest Service

Description: Awards grants for res in a wide array of forest-related fields, including forest management and forest fire protection.

Contact: www.fs.fed.uslinksresearch.html

Private Foundations

Source: **The Allstate Foundation**

Description: Provides grants for community development, government/public administration, safety/disasters. Grants average $1,000 to $10,000.

Deadline: None

More info: Guidelines available by mail request only: 2775 Sanders Rd., Suite F3, Northbrook, IL 60062-6127; www.allstate.com/foundation/

Source: **Plum Creek Foundation**

Description: Provides grants for community projects in areas of company operations. In 2000, grants were awarded to a Volunteer fire department and a county search and Rescue unit. An application form is required. Grants average around $5,000.

Deadline: None

More info: Contact foundation at 999-3rd Ave, Suite 2300, Seattle, WA 98104; 206-467-3600; www.plumcreek.com/company/foundation.cfm; foundation@plumcreek.com

Source: **The Steele-Reese Foundation**

Description: Provides grants for rural development and projects that benefit rural areas; Oregon is one of several areas in which the foundation funds projects. Have funded projects for emergency Volunteers and fire protection districts in the past. Grant amounts fall within a wide range. The foundation requires three copies of the request letter; no application form is required.

Deadline: April 1

More info: 32 Oregon Square West, New York, NY 10011. Info on Oregon programs:

406-722-4564

Appendix VII

Forming a Not for Profit Fire Service Organization

A non-profit organization is a group organized for purposes other than generating profit and in which no part of the organization's income is distributed to its members, directors, or officers. Some Volunteer fire departments are organized as non-profit organizations.

Many -- but not all -- non-profit corporations, depending upon their purposes, can qualify for exemption from federal corporate income taxes. The U.S. Internal Revenue Code contains more than 25 different classifications of tax-exempt groups, including professional associations, charitable organizations, civic leagues, labor unions, fraternal organizations, and social clubs, to name just a few. Depending on the category of the exemption, such groups are entitled to certain privileges and subject to certain reporting and disclosure requirements and limitations on their activities. There are also a number of reporting requirements that must be adhered to after an organization is up and running.

Incorporation as a non-profit organization:

- Incorporation is a good idea if the group plans on being in existence for several years and has the need to raise money through grants and donations that require tax-exempt status.
- Incorporation and the process of seeking tax-exempt status can be costly and time-consuming.
- Liability of leaders and members of the corporation is limited (in other words, the individuals who control the corporation are not Responsible, except in unusual situations, for the legal and financial obligations of the organization).
- There is a tax advantage for the financial donor if money is given to a tax-exempt corporation. (Tax-exempt status is defined in section 501 (c) (3) of the IRS Tax Code.) Money can, however, be legally given to any group or individual without tax-exempt status.
- Some foundations will simply not fund groups that do not have final approval from IRS of its tax-exempt application.
- Incorporation requires careful minutes of official organizational meetings and good financial record keeping.
- If the group's budget is more than $25,000 per year, a tax return needs to be filed.
- Incorporation takes between 6 and 18 months to complete.

Incorporation Process:

- Develop clear and detailed bylaws and articles of incorporation
- Incorporation as a not-for-profit corporation within the state (filing with the state includes names and addresses of the first board of directors, etc.)
- File for recognition as tax-exempt with IRS

Appendix VIII

National Fire Policy

The Bureau of Land Management, National Park Service, Bureau of Indian Affairs, Fish and Wildlife Service, and Forest Service are all members of the National Wildfire Coordinating Group (NWCG). This group provides a formalized system of agreement on substantive issues. Any agreed-on policies, standards or procedures are then implemented directly by each agency. In effect, the NWCG is a large umbrella that coordinates wildland fire matters between all members of the group.

The 2001 Federal Wildland Fire Management Policy is in Chapter 3 of a report entitled "Review and Update of the 1995 Federal Wildland Fire Management Policy." The 2001 Wildland Fire Management Policy and the recommended changes in policy were accepted by the U.S. Secretaries of Interior and Agriculture in 2001, bringing policy changes to the local agency level.

The National Fire Policy sets the policy for support among federal agencies for fire management, and encourages coordination with the individual states, tribes, and municipalities. The National Fire Policy places high priority on several other important topics. This interagency policy highlights and reiterates firefighter and public safety as the number one priority; the policy calls for an assessment of the consequences on safety, property, and cultural resources in choosing the appropriate response to wildland fire.

The National Fire Policy explains the role of federal wildland firefighters (including equipment) as that of wildland firefighting only, and in the special case of the wildland-urban interface, use of federal personnel will be limited to exterior structural fire suppression only. The national policy forbids use of wildland firefighters to enter a house (or other structure).

Key Features of the 2001 Wildland Fire Policy

The 2001 Wildland Fire Policy is the guiding source for how the federal government deals with wildland fire. The document covers a wide variety of issues: safety, protection priorities, planning for possible ignitions, the use of fire for land management purposes, communication, and education of public and agency personnel.

The 2001 Wildland Fire Policy provides a loose framework that allows agencies at all levels of government (federal to local) to work together. Below are some important points from the 2001 Wildland Fire Policy that briefly summarize what the document is about, and summarize what applies to the homeowner.

Point 1 - Safety

"Firefighter and public safety is the first priority. All Fire Management Plans and activities must reflect this commitment."

Point 3 - Response to Wildland Fire

"Fire, as a critical natural process, will be integrated into land and resource management plans and activities on a landscape scale, and across agency boundaries. Response to wildland fire is based on ecological, social, and legal consequences of the fire. The circumstances under which a fire occurs and the likely consequences on firefighter and public safety and welfare, natural

and cultural resources, and values to be protected, dictate the appropriate management response to the fire."

Point 6 - Protection Priorities

"The protection of human life is the single, overriding priority. Setting priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources will be based on the values to be protected, human health and safety, and the costs of protection. Once people have been committed to an incident, these human resources become the highest value to be protected."

Point 7 - Wildland-Urban Interface

"The operational roles of federal agencies as partners in the Wildland-Urban Interface are wildland firefighting, hazardous fuels reduction, cooperative prevention and education, and technical assistance. Structural fire suppression is the responsibility of tribal, state, or local governments. Federal agencies may assist with exterior structural protection activities under formal Fire Protection Agreements that specify the mutual Responsibilities of the partners, including funding."

Point 14 - Interagency Cooperation

"Fire management planning, preparedness, prevention, suppression, fire use, restoration, and rehabilitation, monitoring, research, and education will be conducted on an interagency basis with the involvement of cooperators and partners."

Organization

In terms of a firefighting organization, the federal government has come to terms with the challenges of multiple agencies, multiple land ownerships, and multiple objectives. Although each agency views wildland fire differently, through the interagency approach, the federal agencies have managed to establish a strong fire management organization.

The interagency effort has come about because it is difficult for any one agency to fund enough resources to protect all of its lands. By pooling their resources and carefully coordinating their efforts, the agencies can deal with the many fires that burn every year.

On the operational end of the National Wildfire Coordinating Group (NWCG) is the National Interagency Fire Center (NIFC) in Boise, Idaho. NIFC is a complex that houses all of the agencies in one place. NIFC provides safe, effective, and efficient policies and guidance, as well as technical and logistical support to the wildland fire management community.

All of the resources available on the national level are available for wildland fire suppression. Through a system of allocation and prioritizing, crews and resources are frequently moved around the United States to provide fire suppression services on federal lands as well as state lands as long as federal resource needs are being met.

The fire teams and crews ultimately carry out the wildland fire policy. These teams have responsibility for ordering resources, asking for assistance, and providing fire suppression. They also determine whose land a fire is on and if it's a threat to people, to homes, or to other property.

The personnel within that fire management organization are wildland fire trained. The rules, regulations, and legal authority of the Federal Government are for the perseveration of federally administered lands. With the exception of government compounds that have firefighters trained

to deal with fires inside of buildings and other structures, federal wildland firefighters are not trained to deal with structural fires.

Appendix IX

Glossary of Terms

Biological Assessment - Information document prepared by or under the direction of the federal agency in compliance with U.S. Fish and Wildlife standards. The document analyzes potential effects of the proposed action on listed and proposed threatened and endangered species and proposed critical habitat that may be present in the action area.

Backfiring - When attack of a wildfire is indirect, intentionally setting fire to fuels inside the control line to contain a spreading fire. Backfiring provides a wider defensible perimeter, and may be further employed to change the force of the convection column.

Blackline - Denotes a condition where the fireline has been established by removal of burnable fuels.

Burning Out - When attack is direct, intentionally setting fire to fuels inside the control line to strengthen the line. Burning out is almost always done by the crew boss as a part of line construction; the control line is considered incomplete unless there is no fuel between the fire and the line.

British Thermal Unit (Btu) - A unit of energy used globally in the power, steam generation, and heating and air conditioning industries. In North America, Btu is used to describe the heat value (energy content) of fuels, and also to describe the power of heating and cooling systems, such as furnaces, stoves, barbecue grills, and air conditioners.

Contingency Plans - Provide for the timely recognition of approaching critical fire situations and for timely decisions establishing priorities to resolve those situations.

Control Line - An inclusive term for all constructed or natural fire barriers and treated fire edge used to control a fire.

Crew - An organized group of firefighters under the leadership of a crew boss or other designated official.

Crown Fire - A fire that advances from tree top to tree top more or less independently of the surface fire. Sometimes crown fires are classed as either running or dependent, to distinguish the degree of independence from the surface fire.

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.

Duff - The partially decomposed organic material of the forest floor beneath the litter of freshly fallen twigs, needles, and leaves.

Ecosystem - An interacting system of interdependent organisms and the physical set of conditions upon which they are dependent and by which they are influenced.

Environmental Impact Statement (EIS) - According to the National Environmental Policy Act, whenever the US Federal Government takes a “major Federal action significantly affecting the quality of the human environment” it must first consider the environmental impact in a document called an Environmental Impact Statement.

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

Fire Adapted Ecosystem - An arrangement of populations that have made long-term genetic changes in response to the presence of fire in the environment.

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

Fire Behavior Forecast - Fire behavior predictions prepared for each shift by a fire behavior analyst to meet planning needs of the fire overhead organization. The forecast interprets fire calculations made, describes expected fire behavior by areas of the fire with special emphasis on personnel safety, and identifies hazards due to fire for ground and aircraft activities.

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 Ecology - The scientific study of fire's effects on the environment, the interrelationships of plants, and the animals that live in such habitats.

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 Management Plan (FMP) - A strategic plan that defines a program to manage wildland and prescribed fires and documents the fire management program in the approved land use plan. This plan is supplemented by operational procedures such as preparedness, preplanned dispatch, burn plans, and prevention. The fire implementation schedule that documents the fire management program in the approved forest plan alternative.

Fire Management Unit (FMU) - Any land management area definable by objectives, topographic features, access, values-to-be-protected, political boundaries, fuel types, or major fire regimes, etc., that set it apart from management characteristics of an adjacent unit. FMU's are delineated in FMP's. These units may have dominant management objectives and preselected strategies assigned to accomplish these objectives.

Fire Occurrence - The number of wildland fires started in a given area over a given period of time. (Usually expressed as number per million acres.)

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 Retardant - Any substance that by chemical or physical action reduces flareability of combustibles.

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.

Forb - Any broad-leaved herbaceous plant that is not a grass, especially one that grows in a prairie or meadow

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.

Gap Analysis Program (GAP) - Regional assessments of the conservation status of native vertebrate species and natural land cover types and to facilitate the application of this information to land management activities. This is accomplished through the following five objectives:

1. Map the land cover of the United States.
2. Map predicted distributions of vertebrate species for the U.S.
3. Document the representation of vertebrate species and land cover types in areas managed for the long-term maintenance of biodiversity.
4. Provide this information to the public and those entities charged with land use research, policy, planning, and management.

5. Build institutional cooperation in the application of this information to state and regional management activities.

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.q. 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.

Hydrophobic - Resistance to wetting exhibited by some soils also called water repellency. The phenomena may occur naturally or may be fire-induced. It may be determined by water drop penetration time, equilibrium liquid-contact angles, solid-air surface tension indices, or the characterization of dynamic wetting angles during infiltration.

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.

National Environmental Policy Act (NEPA) - An act establishing a national policy to encourage productive and enjoyable harmony between humans and their environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of humankind; to enrich the understanding of important ecological systems and natural resources; and to establish a Council on Environmental Quality.

National Fire Management Analysis System (NFMAS) - The fire management analysis process, which provides input to forest planning and forest and regional fire program development and budgeting.

Native - Indigenous; living naturally within a given area.

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

Noncommercial Thinning - Thinning by fire or mechanical methods of pre-commercial or commercial size timber, without recovering value, to meet state forest practice standards relating to the protection/enhancement of adjacent forest or other resource values.

Notice of Availability - A notice published in the Federal Register stating that an EIS has been prepared and is available for review and comment (for draft) and identifying where copies are available.

Notice of Intent - A notice published in the Federal Register stating that an Environmental Impact Statement (EIS) will be prepared and considered. This notice will describe the proposed action and possible alternatives and the proposed scoping process. It will also provide contact information for questions about the proposed action and EIS.

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.

Programmatic Biological Assessment - Assesses the effects of fire management programs on federally listed species, not the individual projects that are implemented under these programs. A determination of effect on listed species is made for the programs, which is a valid assessment of the potential effects of the projects completed under these programs, if the projects are consistent with the design criteria and monitoring and reporting requirement contained in the project description and summaries.

Reburn - Subsequent burning of an area in which fire has previously burned but has left flareable light fuels that ignites when burning conditions are more favorable.

Road Density - The volume of roads in a given area (mile/square mile).

Scoping - Identifying at an early stage the significant environmental issues deserving of study and de-emphasizing insignificant issues, narrowing the scope of the environmental analysis accordingly.

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

Serotinous - Storage of coniferous seeds in closed cones in the canopy of the tree. Serotinous cones of lodgepole pine do not open until subjected to temperatures of 113 to 122 degrees Fahrenheit causing the melting of the resin bond that seals the cone scales.

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 Implementation Plan (WFIP) - A progressively developed assessment and operational management plan that documents the analysis and selection of strategies and describes the appropriate management response for a wildland fire being managed for resource benefits. A full WFIP consists of three stages. Different levels of completion may occur for differing management strategies (e.q., fires managed for resource benefits will have two-three stages of the WFIP completed while some fires that receive a suppression response may only have a portion of Stage I completed).

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.

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