

Columbia County, Washington

Community Wildfire Protection Plan Appendices

July 9th, 2008

Mission Statement: To make Columbia County residents, communities, state agencies, local governments, and businesses less vulnerable to the negative effects of wildland fires through the effective administration of wildfire hazard mitigation grant programs, hazard risk assessments, wise and efficient fuels treatments, and a coordinated approach to mitigation policy through federal, state, regional, and local planning efforts. Our combined prioritization will be the protection of people, structures, infrastructure, and unique ecosystems that contribute to our way of life and the sustainability of the local and regional economy.



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

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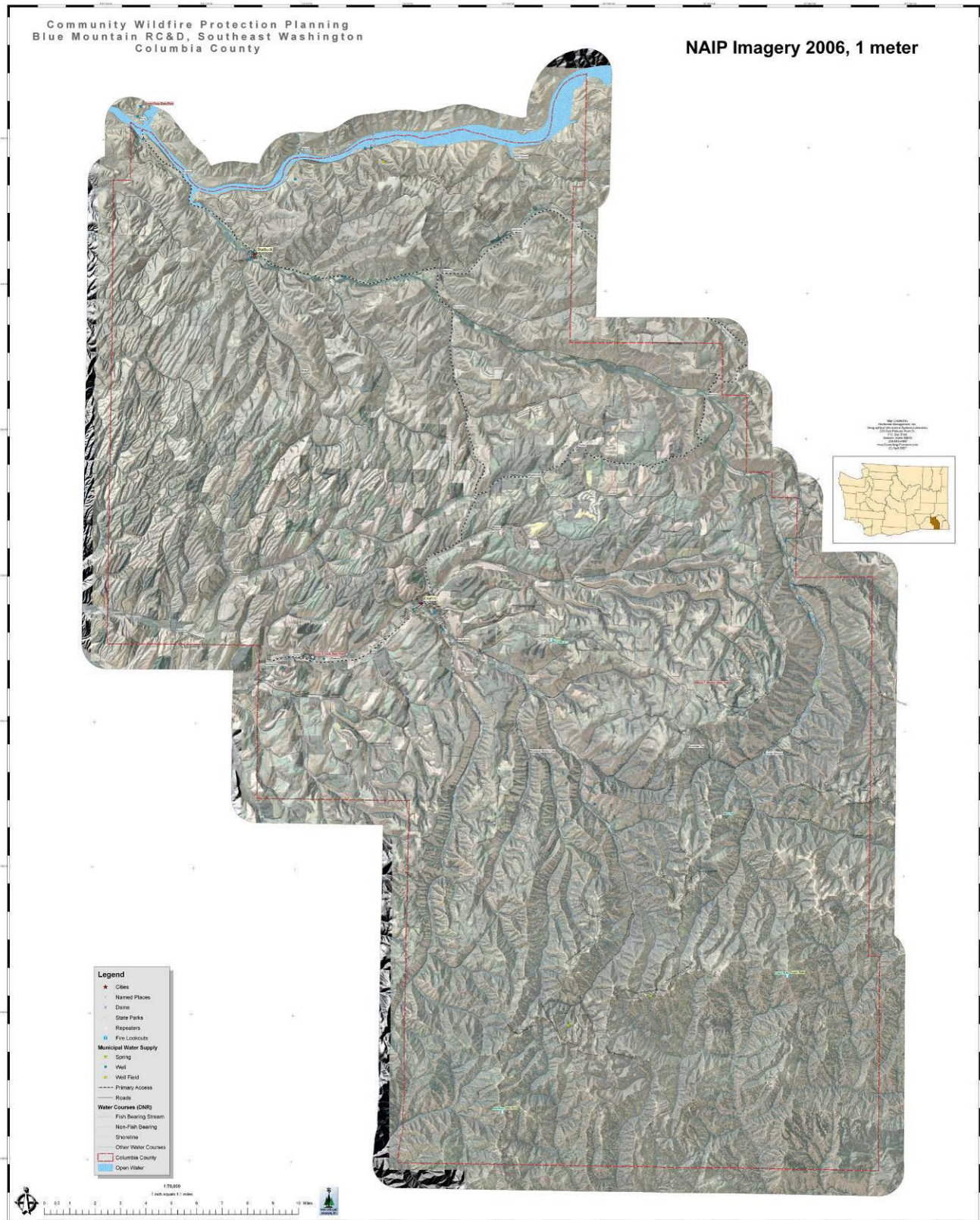
Appendix I: Maps

Northwest Management, Inc.

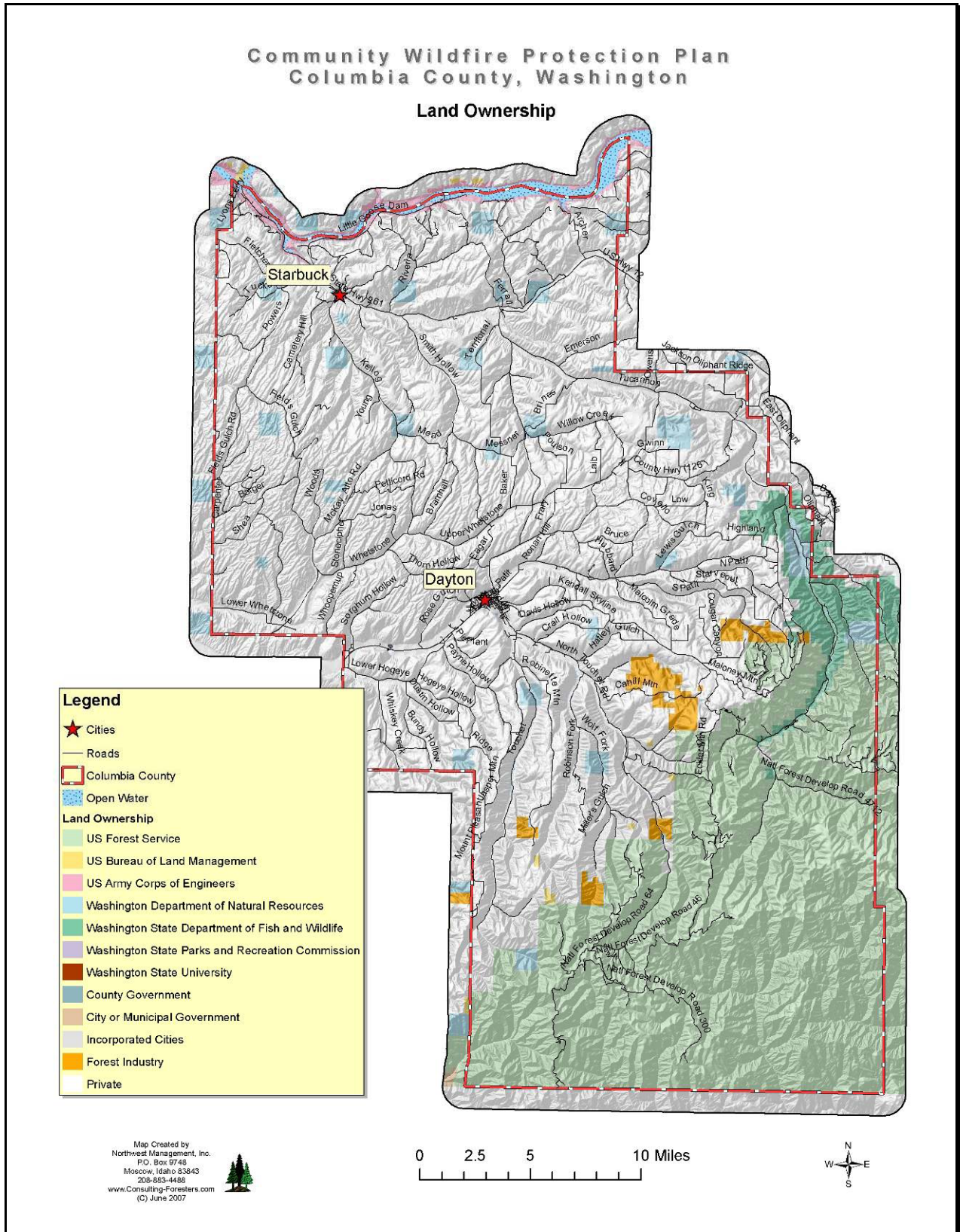
233 East Palouse River Dr., P.O. Box 9748, Moscow, ID 83843 www.Consulting-Foresters.com

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.

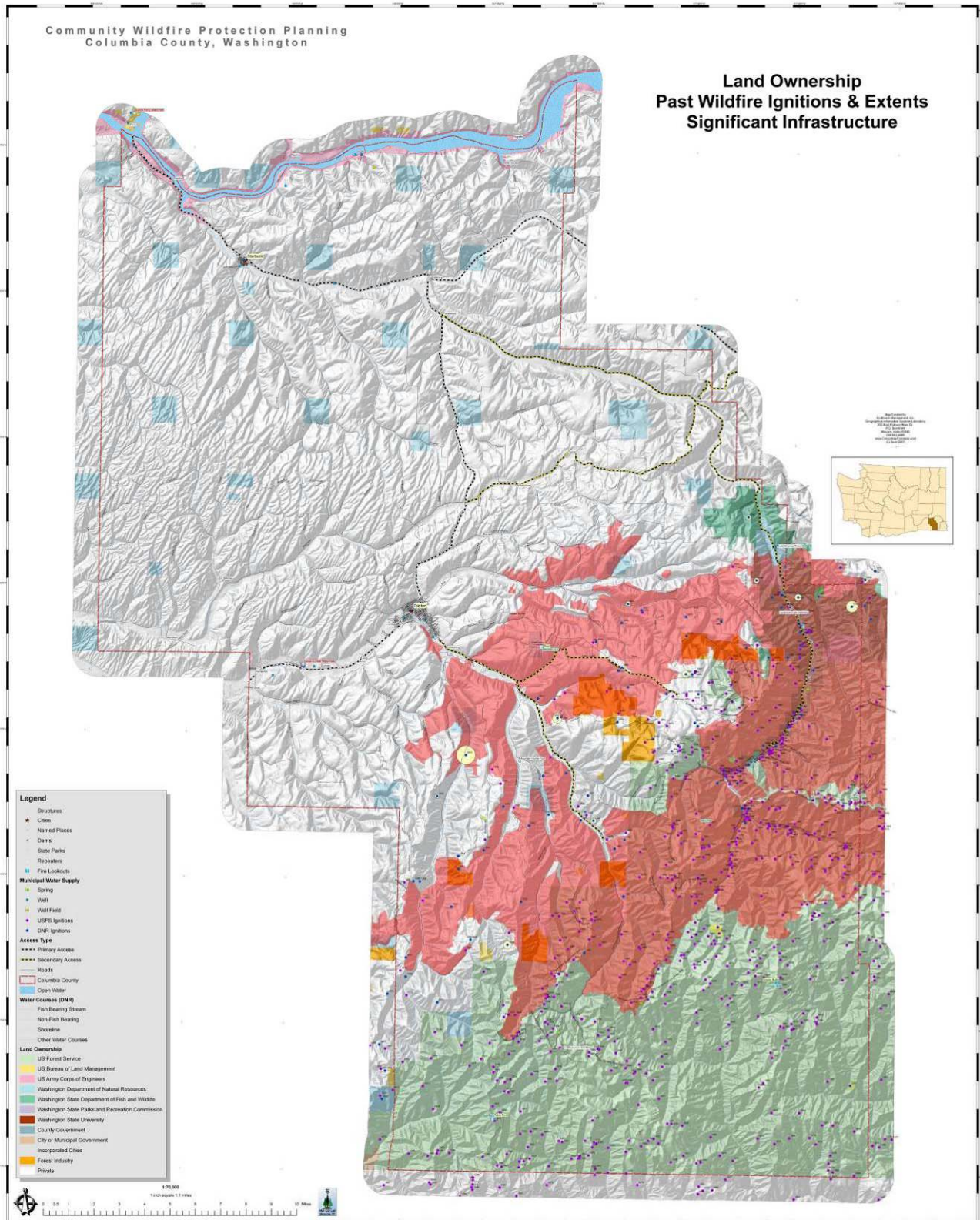
2006 Aerial Imagery of Columbia County



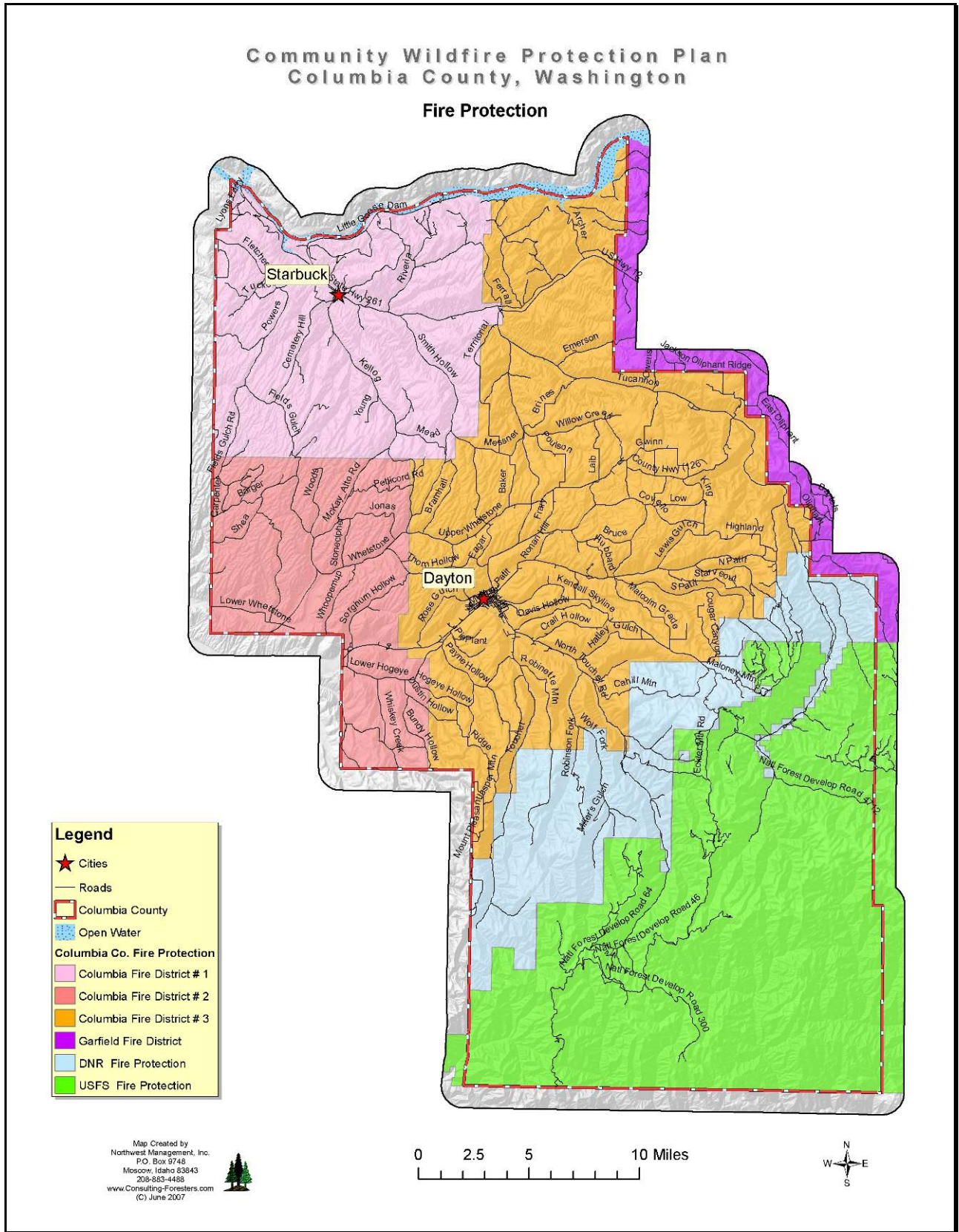
Land Ownership



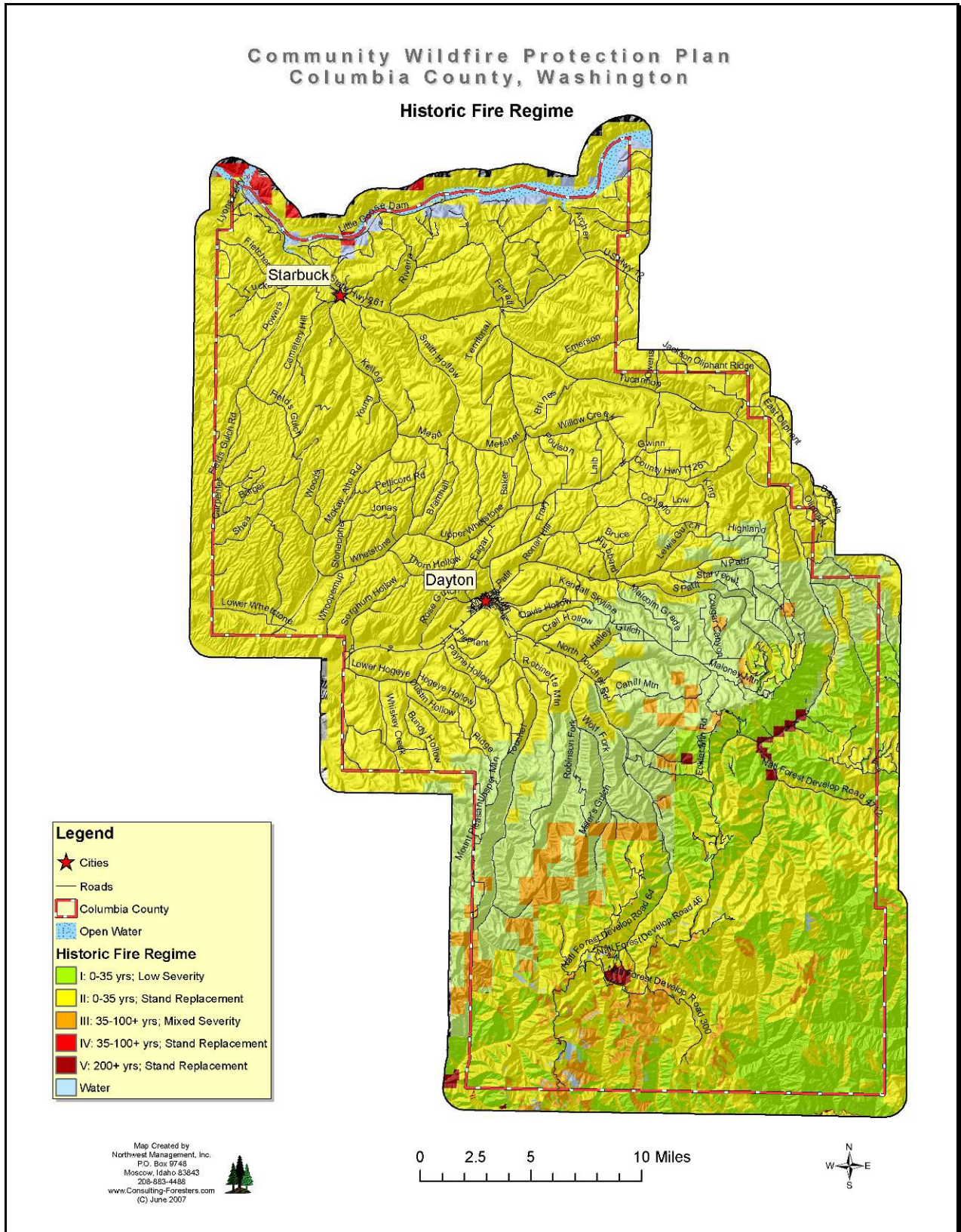
Past Fire Occurrences



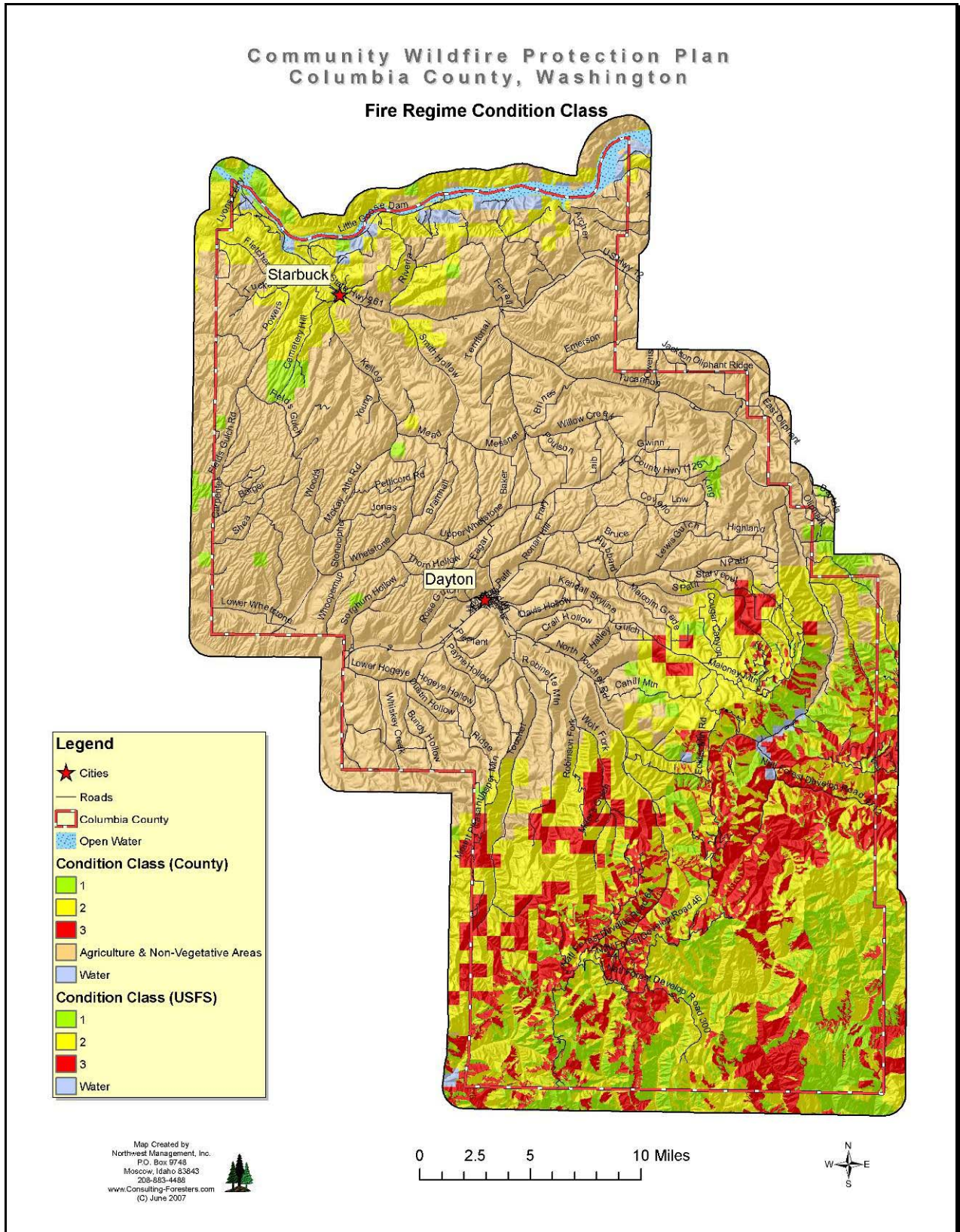
Columbia County Fire Protection



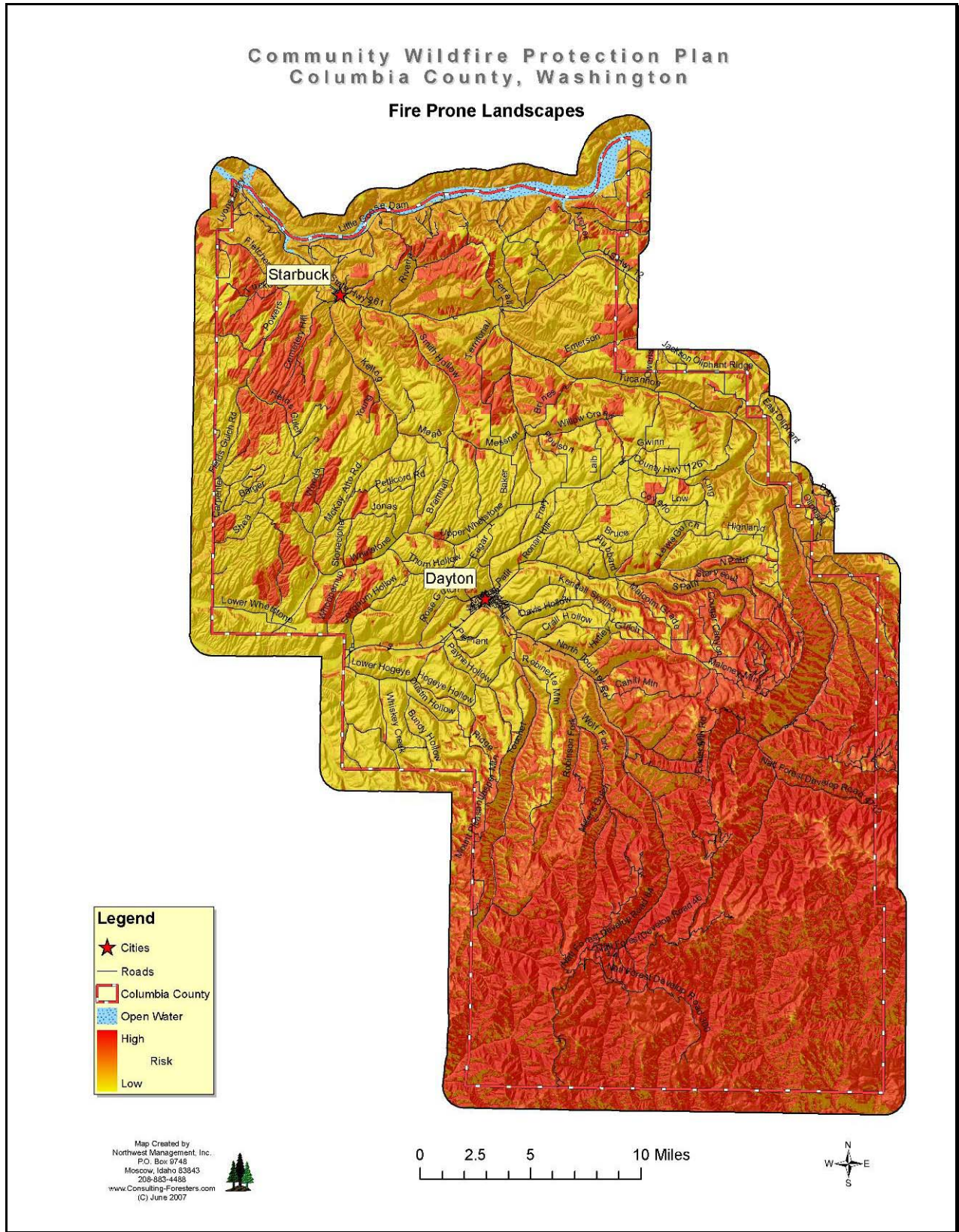
Historic Fire Regime



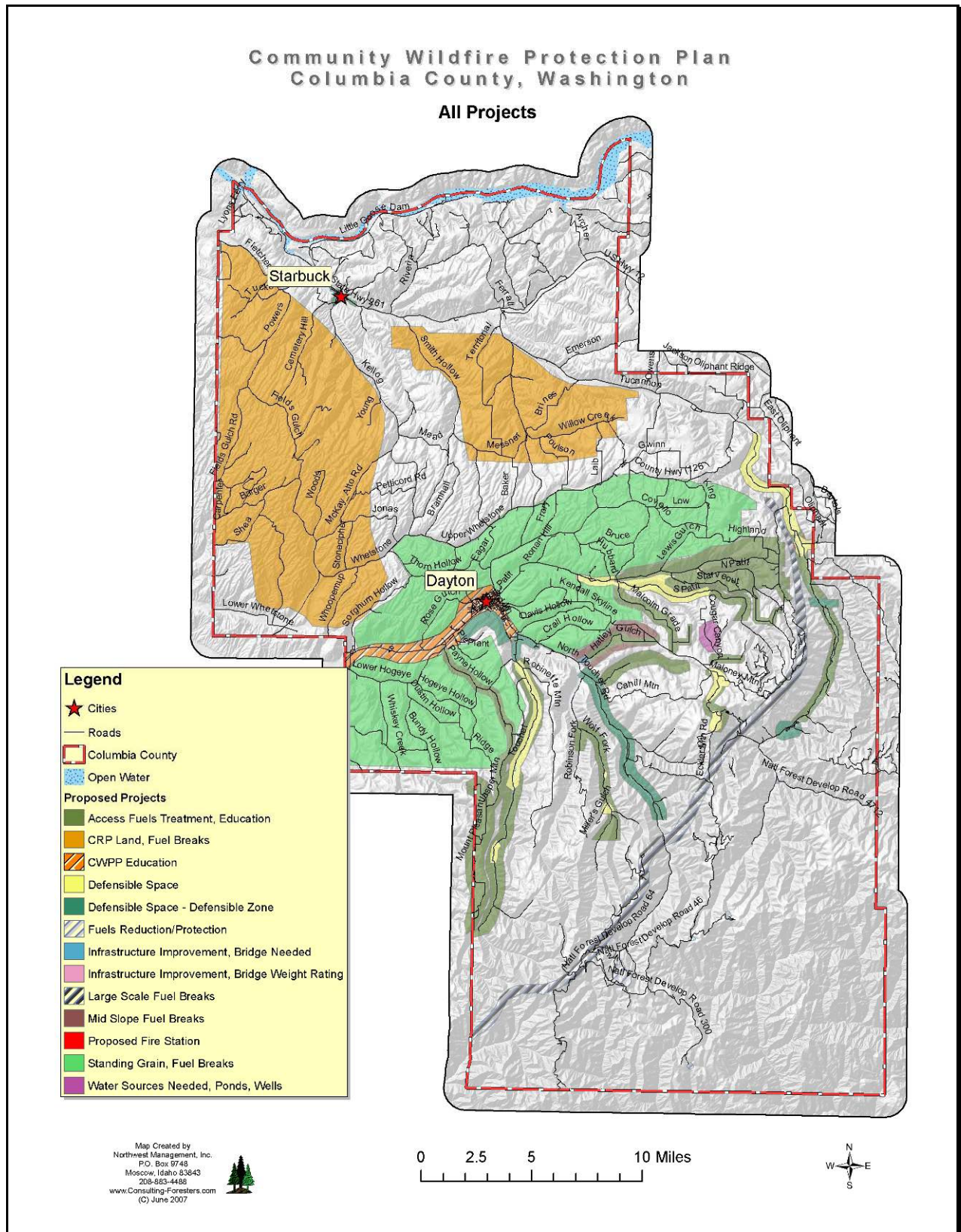
Fire Regime Condition Class



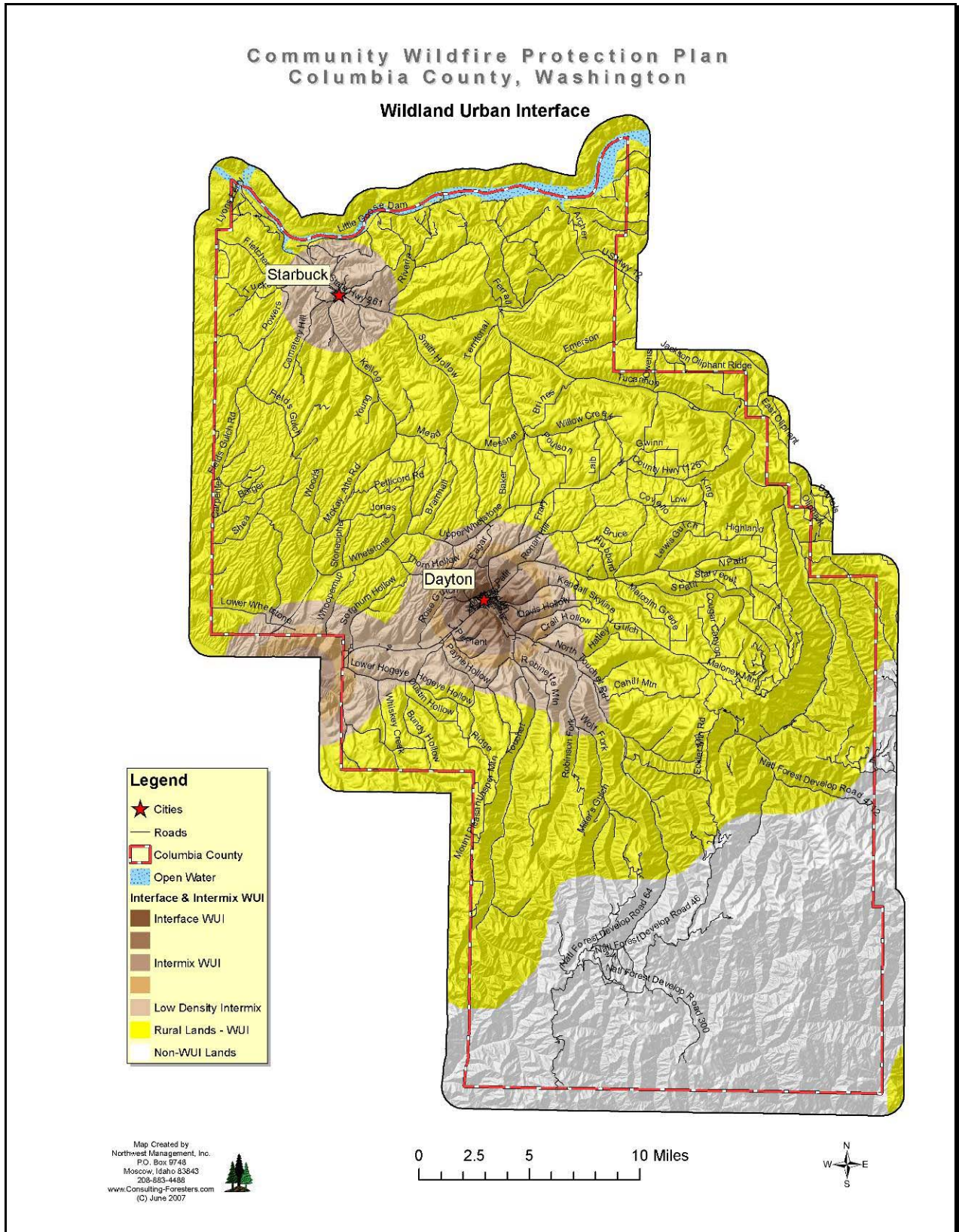
Fire Prone Landscapes



Proposed Treatment Areas in Columbia County



Wildland-Urban Interface and Significant Infrastructure



Appendix II

Public Mail Survey

Public Letter #1

Sent on June 13, 2007 with a letter and survey



Columbia County Board of Commissioners

District 1
Dwight Robanske

District 2
Richard W. Jones

District 3
Charles G. Reeves

341 E Main Street
Dayton, Washington 99328
(509) 382-4542

Columbia County Community Wildfire Protection Plan Survey

Dear Columbia County Resident:

Thank you for taking fifteen minutes of your time to read and respond to this short inquiry. The Columbia County Commissioners are working with the Blue Mountain RC&D, Northwest Management, Inc., and a host of fire protection and emergency service organizations in Columbia County to develop a **Community Wildfire Protection Plan**. As an individual who lives in Columbia County, you know that the urban-rural interface is at very high risk to loss due to wildland fires.

This year we are taking a proactive role in mitigating wildland fire-caused casualty losses in the County. We are inviting you to take a proactive role as well.

Northwest Management, Inc. has been contracted to develop improved predictive models of where fires are likely to ignite, locate and identify high risk landscape characteristics, improve land management practices to reduce fire rate-of-spread on forest and rangelands, evaluate policy issues regarding wildfire suppression and management, and work with local landowners to create wildland fire defensible zones around homes and other buildings. It is with the last of these goals that your help is needed.

We would like you to complete the attached survey about your home's defensible space in the case of wildland fire. Your responses will be kept completely confidential and released only in aggregated form. This questionnaire will allow us to identify key criteria that may place your home and the homes of your neighbors at the greatest risk. We will

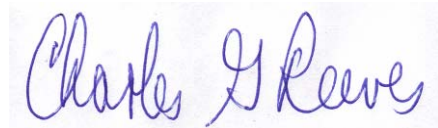
use this information to develop mitigation activities that may lead to saving your home and the community you live in.

We have sent this letter and survey to only a select number of people living in Columbia County. Because of this, your response is very important to our efforts and the application of our findings to your home and to your community. Please take a few minutes to complete the enclosed survey and return it in the self addressed envelope.

We would like to thank you for your assistance on this project with a small token of appreciation. During the development of this project, Northwest Management, Inc. is completing some very advanced mapping of Columbia County. **They would like to send you a FREE 11" x 17" aerial photograph of Columbia County.** Your photograph will be printed in high resolution and sent directly to you! When you complete your survey, please check the "Yes, send me a photograph!" box on the back page and Northwest Management, Inc. will custom color print this photograph for you and send it at no charge.

Thank you for your assistance. If you have any questions about this project or this survey please contact Lisa Naylor, Blue Mountain RC&D Coordinator at 509-382-8968 or Tera King at Northwest Management, Inc. in Moscow, Idaho, at 208-883-4488 or at king@consulting-foresters.com.

Sincerely,

A handwritten signature in blue ink that reads "Charles G. Reeves". The signature is written in a cursive style and is positioned above the typed name and title.

Charles G. Reeves, Chairman
Columbia County Board of Commissioners

Community Wildfire Protection Plan Public Survey

1. What type of property do you own in Columbia County (check all that apply)?
 - Home
 - Land
 - Recreational Cabin
 - Other

2. Is this your primary residence?
 - Yes
 - No

3. Which community do you live closest to?

4. Does your area have 911 emergency telephone service?
 - Yes
 - No

5. Is your home protected by a rural fire department?
 - No
 - Yes, if yes what is the fire response time to your home?
 - under 10 minutes
 - 10 – 20 minutes
 - 20 – 30 minutes
 - 30 – 45 minutes
 - more than 45 minutes

6. What type of roof does your home have (please mark one):
 - Composite
 - Wooden shake (shingles)
 - Ceramic tiles
 - Aluminum, tin, or other metal
 - Other (please indicate: _____)

7. How many trees are within 75 feet of your home?
 - None
 - less than 10
 - Between 10 and 25
 - More than 25

8. Do you have a lawn surrounding your home?
 - No
 - Yes, if yes is it kept green and trimmed all summer?
 - No
 - Yes

9. How long is your driveway, from the main road to your home parking area?

- Feet
- Miles

10. If your driveway is over ¼ mile long, does it have turnouts that would allow two large trucks to pass each other?

- No
- Yes

11. What type of surfacing does your driveway have?

- Dirt
- Gravel/rock
- Paved

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

- No
- Yes

13. 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)

- Hand tools (shovel, axe, etc.)
- Portable water tank
- Stationery water tank
- Pond, lake, or stream water supply close
- Water pump and fire hose
- Well or cistern
- Equipment suitable for creating fire breaks (bulldozer, cat, farm tractor, etc.)

14. Do you own firefighting equipment?

- No
- Yes, if yes would you be willing to be on contract with the federal and/or state government?
 - No
 - Yes

15. Please indicate any emergency services training anyone in your household has received in the last five years.

Type of Training	No	Yes
Wildland Firefighting	<input type="radio"/>	<input type="radio"/>
City or Rural Firefighting	<input type="radio"/>	<input type="radio"/>
EMT (Emergency Medical Technician)	<input type="radio"/>	<input type="radio"/>
Basic First Aid/ CPR	<input type="radio"/>	<input type="radio"/>
Search and Rescue	<input type="radio"/>	<input type="radio"/>

16. Do you conduct a periodic fuels reduction program near your home site such as clearing and removing brush or trimming trees?
- No
 - Yes
17. Do livestock graze the grasses and shrubs around your home?
- No
 - Yes
18. If approached by local fire officials, would you be willing to participate in a program to further protect agricultural fields by creating fuel breaks?
- No
 - Yes
19. Would you support increased use of coordinated prescribed burning as a fuels management tool?
- No
 - Yes
20. Would you support controlled grazing on your property and/or public property in an effort to reduce wildfire risk?
- No
 - Yes

21. Use this exercise below to assess your home's fire risk rating:
 Circle the ratings in each category that best describes your home.

Fuel Hazard Rating Worksheet		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)	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	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

Calculating your risk

Fuel hazard _____ x Slope Hazard _____ = _____
 Structural hazard _____ + _____
 Additional factors (+ or -) _____
 Total Hazard Points = _____

- Extreme Risk = 26 + points**
- High Risk = 16–25 points**
- Moderate Risk = 6–15 points**
- Low Risk = 6 or less points**

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

- No
- Yes

23. Would you or your family be interested in participating in a one-day group effort to reduce hazardous fuels in your neighborhood or community?

- No
- Yes

24. 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 box that best applies to your preference		
	100% Public Funding	Cost-Share (Public & Private)	Privately Funded (Owner or Company)
Home Defensibility Projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community Defensibility Projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Infrastructure Projects Roads, Bridges, Power Lines, Etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. Do you have any suggestions for fire prevention projects or endeavors that would benefit your neighborhood, community, or Columbia County? Please indicate.

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 defending homes and adjacent buildings where hazards are common.

Please place the completed survey in the self-addressed envelope and place it in the mail for return to us. As a token of appreciation for completing and returning this survey, Northwest Management, Inc. would like to send you a detailed aerial photograph of Columbia County.

Please indicate below if you would like to receive a **free** photograph!

- Yes, please send me an aerial photograph of Columbia County!
- No, thank you.

Our records indicate your address is:

Name
Address
City, ID ZIP

Please make corrections here:

Public Letter #2

Sent as a postcard on June 28, 2007

Dear Columbia 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 which the Columbia County Commissioners are developing in conjunction with the Blue Mountain RC&D, Northwest Management, Inc., and a host of fire protection and emergency service organizations in Columbia County. 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 Lisa Naylor, coordinator Blue Mountain RC&D, at 509-382-8968 or Tera King at Northwest Management, Inc. in Moscow, Idaho at 208-883-4488 or king@consulting-foresters.com. 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!

Charles G. Reeves, Chairman

Columbia County Board of Commissioners

Public Letter #3

Sent on July 12, 2007 and included a replacement survey (not included here).



Columbia County Board of Commissioners

District 1
Dwight Robanske

District 2
Richard W. Jones

District 3
Charles G. Reeves

341 E Main Street
Dayton, Washington 99328
(509) 382-4542

Columbia County Community Wildfire Protection Plan Survey

Dear Columbia County Resident:

Thank you for taking fifteen minutes 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 a **Community Wildfire Protection Plan** Columbia County is preparing with assistance from the Blue Mountain RC&D, Northwest Management, Inc., and a host of fire protection and emergency service organizations in Columbia County. While we have received excellent responses from many residents of the area, we have not received them from everyone. **If you have completed and returned your survey, please accept our sincere thanks!** If you have not returned the completed survey, please do so as soon as possible.

As an individual who lives in Columbia County, you know that the urban-rural interface is at very high risk to loss due to wildland fires. This year we are taking a proactive role in mitigating wildland fire-caused casualty losses in the County. We are inviting you to take a proactive role as well.

Northwest Management, Inc. has been contracted to develop improved predictive models of where fires are likely to ignite, locate and identify high risk landscape characteristics, advance improved land management practices to reduce fire rate-of-spread on forest and rangelands, and work with rural landowners to create wildland fire defensible zones around homes and other buildings. It is with the last of these goals that your help is needed.

We would like you to complete the attached survey about your home's defensible space in the case of wildland fire. Your responses will be kept completely confidential and released only in aggregated form. This questionnaire will allow us to identify key criteria that may place your home and the homes of your neighbors at the greatest risk. We will use this information to develop mitigation activities that may lead to saving your home and the community in which you live.

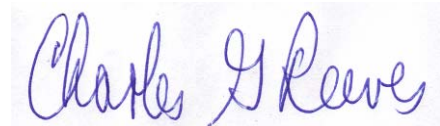
We have sent this letter and survey to only a select number of people living in Columbia County. Because of this, your response is very important to our efforts and the application of our findings

to your home and to your community. Please take a few minutes to complete the enclosed survey and return it in the self addressed envelope.

We would like to thank you for your assistance on this project with a small token of appreciation. During the development of this project, we are completing some very advanced mapping of Columbia County. **We would like to send you a FREE 11" x 17" aerial photograph of Columbia County.** Your photograph will be printed in high resolution and sent directly to you! When you complete your survey, please check the "Yes, send me an aerial photograph!" box on the back page and we will custom color print this map for you and send it at no charge. It is our way of thanking you for your input to this very important project.

Thank you for your assistance. If you have any questions about this project or this survey please contact Lisa Naylor, Blue Mountain RC&D Coordinator at 509-382-8968 or Tera King at Northwest Management, Inc. in Moscow, Idaho, at 208-883-4488 or at king@consulting-foresters.com.

Sincerely,

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Charles G. Reeves, Chairman
Columbia County Board of Commissioners

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

Prioritization Factors →	Point Values				Total	Ranking
	Benefit / Cost	Vulnerability of Communities	Potential for Repetitive Loss Reduction	Potential to mitigate for Future Development		
↓ Action Item ↓						
5.1.a	10	10	5	5	30	High
5.1.c	8	9	5	5	27	High
5.1.d	10	9	5	5	29	High
5.1.e	10	10	5	5	30	High
5.1.f	10	9	4	5	28	High
5.1.g	10	10	5	5	30	High
5.1.h	8	8	4	4	24	High
5.1.i	10	10	5	5	30	High
5.1.j	10	10	5	5	30	High
5.1.k	10	8	5	5	28	High
5.1.l	10	10	5	5	30	High
5.4.b	10	10	5	5	30	High
5.4.d	10	10	10	10	30	High
5.4.g	10	10	10	10	30	High

Non-Planning Projects

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

Prioritization Factors →	Point Values									Total	Ranking
	Benefit / Cost	Population Benefit	Property Benefit	Economic Benefit	Project Feasibility	Magnitude / Frequency	Repetitive Loss Reduction	Mitigation Hazards for Future Development	Effectiveness / Sustainability		
↓ Action Item ↓											
5.1.b	10	1	7	3	4	4	3	2	4	38	Medium
5.2.a	10	1	7	3	5	3	3	4	4	40	High
5.2.b	10	3	10	3	2	3	4	2	3	40	High
5.2.c	4	2	10	4	2	3	4	3	3	35	Medium
5.2.d	1	1	7	4	2	3	4	4	3	29	Medium
5.2.e	8	2	10	2	3	3	4	4	3	39	Medium
5.2.g	10	3	10	4	5	4	4	4	3	47	High
5.3.a	10	3	10	3	5	4	3	3	5	46	High
5.3.b	4	1	7	5	3	4	4	4	4	36	Medium
5.3.c	3	1	3	3	3	4	4	3	4	28	Medium
5.3.d	10	3	10	3	5	4	4	4	5	48	High
5.3.e	10	1	7	3	4	3	4	3	4	39	Medium
5.3.f	8	1	1	2	5	3	2	4	4	30	Medium
5.4.a	10	3	10	3	5	4	3	4	5	47	High
5.4.c	10	2	10	3	4	4	4	4	5	46	High
5.4.e	5	3	10	2	5	3	3	4	5	40	High
5.4.f	10	3	10	2	5	4	4	4	5	47	High
5.4.h	5	3	10	2	4	5	4	5	5	43	High
5.4.i	2	3	4	2	4	3	3	4	5	30	Medium
5.4.j	2	3	4	4	3	3	3	4	5	31	Medium
5.4.k	1	3	3	4	3	3	3	4	5	29	Medium
5.4.l	3	4	4	3	4	4	4	4	5	35	Medium
5.4.m	9	3	4	3	5	3	4	5	5	41	High

Proposed Projects

Summary of Scores for Structure Defensible Space Projects

Summary of Prioritization Scores for CWPP Structure Defensible Space Projects.

Point Values											
Prioritization Factors →	Benefit / Cost	Population Benefit	Property Benefit	Economic Benefit	Project Feasibility	Magnitude / Frequency	Repetitive Loss Reduction	Mitigation Hazards for Future Development	Effectiveness / Sustainability	Total	Ranking
↓ Action Item ↓											
Baileysburg	7	7	10	4	3	4	4	3	3	45	High
Camp Wooten	3	7	4	4	4	5	5	4	5	41	High
Eckler Mountain	3	7	1	4	3	5	4	3	4	34	Medium
Lower Touchet	7	7	7	4	3	5	4	3	4	44	High
Maloney Mountain	3	7	2	4	2	5	4	3	4	33	Medium
North Patit	7	7	1	4	4	4	4	3	3	37	Medium
Patit	7	7	6	4	3	4	4	3	3	41	High
Rock Hill	7	7	1	4	3	4	3	3	3	35	Medium
South Touchet	3	7	1	4	2	5	4	3	4	33	Medium
South Tucannon	7	7	5	4	2	4	4	3	4	40	High
Starbuck	7	7	10	4	2	3	3	2	3	41	High
Tucannon Hatchery	3	7	1	4	2	5	5	4	4	35	Medium
Tumalum Creek	7	7	4	4	2	4	4	3	3	38	Medium
Wolf Fork	3	8	1	4	2	5	4	3	4	33	Medium

Summary of Scores for Community Defensible Zone Projects

Summary of Prioritization Scores for CWPP Community Defensible Zone Projects.

Point Values											
Prioritization Factors →	Benefit / Cost	Population Benefit	Property Benefit	Economic Benefit	Project Feasibility	Magnitude / Frequency	Repetitive Loss Reduction	Mitigation Hazards for Future Development	Effectiveness / Sustainability	Total	Ranking
↓ Action Item ↓											
Baileysburg	2	5	6	4	4	3	3	3	3	33	Medium
Camp Wooten	2	5	6	4	4	4	5	5	5	40	High

Summary of Prioritization Scores for CWPP Community Defensible Zone Projects.

Point Values											
Prioritization Factors →	Benefit / Cost	Population Benefit	Property Benefit	Economic Benefit	Project Feasibility	Magnitude / Frequency	Repetitive Loss Reduction	Mitigation Hazards for Future Development	Effectiveness / Sustainability	Total	Ranking
↓ Action Item ↓											
Rock Hill	2	5	2	4	4	3	3	3	3	29	Medium
Starbuck	2	5	10	4	2	3	3	3	3	35	Medium
Tucannon	2	5	2	4	4	4	5	4	4	34	Medium

Summary of Scores for Fuels Reduction Projects

Summary of Prioritization Scores for CWPP Fuels Reduction Projects.

Point Values											
Prioritization Factors →	Benefit / Cost	Population Benefit	Property Benefit	Economic Benefit	Project Feasibility	Magnitude / Frequency	Repetitive Loss Reduction	Mitigation Hazards for Future Development	Effectiveness / Sustainability	Total	Ranking
↓ Action Item ↓											
Bluewood	0	3	2	5	5	4	3	3	5	30	Medium
Central Columbia CRP	1	3	10	5	3	5	4	5	4	40	High
Community Protection	0	3	1	4	1	4	3	3	2	21	Low
Dayton Patit CRP	3	3	10	5	3	5	4	5	4	42	High
Goodman Guard Station	2	3	0	4	5	4	2	3	5	29	Medium
Hatley Gulch	0	3	0	3	3	3	2	3	3	20	Low
Ladybug	1	3	0	4	5	4	3	4	5	30	Medium
Little Turkey	9	3	2	4	5	4	3	4	5	39	Medium
Patti Creek / Maloney Mtn	0	3	10	4	4	4	3	4	5	37	Medium
Punjab	2	3	0	4	5	4	3	4	5	30	Medium
Slick Ear	10	3	3	4	5	4	3	4	5	41	High
Southwest Dayton CRP	2	3	10	5	3	5	4	5	4	41	High
Tucannon Campground	1	3	0	4	5	4	3	4	5	30	Medium
West Columbia CRP	1	3	10	5	3	5	4	5	4	40	High

Summary of Scores for Roadside Fuels Treatment Projects

Summary of Prioritization Scores for CWPP Roadside Fuels Treatment Projects.

Prioritization Factors →	Point Values									Total	Ranking
	Benefit / Cost	Population Benefit	Property Benefit	Economic Benefit	Project Feasibility	Magnitude / Frequency	Repetitive Loss Reduction	Mitigation Hazards for Future Development	Effectiveness / Sustainability		
↓ Action Item ↓											
East Fork Touchet	2	7	10	4	3	4	3	4	3	40	High
Hatley Gulch	1	7	6	4	4	3	3	4	3	35	Medium
Jasper Mountain	0	7	1	4	3	3	3	4	3	28	Medium
Malcolm Grade	0	7	1	4	2	3	3	4	3	27	Medium
Marl	0	7	1	4	4	3	3	4	3	29	Medium
Mount Pleasant	0	7	5	4	4	3	3	4	3	33	Medium
North Fork Touchet	2	7	10	4	4	4	3	4	3	41	High
North Patit	3	7	10	4	4	4	3	4	3	42	High
Patit Creek / Maloney Mtn	1	7	10	4	4	4	3	4	3	42	High
Payne Hollow	1	7	10	4	3	3	3	4	3	38	Medium
Robinson Fork	2	7	10	4	4	3	3	4	3	40	High
Rodgers Gulch	2	7	5	4	4	3	3	4	3	34	Medium
Skyline Drive	1	7	10	4	4	4	3	4	3	40	High
South Fork Touchet	1	7	7	4	3	4	3	4	3	35	Medium
South Patit	1	7	10	4	4	4	3	4	3	40	High
Tucannon	1	7	10	4	4	4	3	4	3	40	High
Tucker	1	7	3	4	4	3	3	4	3	32	Medium
Wolf Fork	1	7	2	4	3	4	3	4	3	30	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 Columbia County.

CWPP Committee and Public Project Area Data

CWPP Project Area Valuation Data.			
Project Name	Number of Structures	Number of Acres	Total Estimated Value of Structures
Baileysburg Defensible Space	108	468	\$8,736,984
Camp Wooten Defensible Space	34	555	\$2,750,532
Eckler Mountain Defensible Space	8	287	\$647,184
Lower Touchet Defensible Space	59	1,765	\$4,772,982
Maloney Mountain Defensible Space	14	523	\$1,132,572
North Patit Defensible Space	7	236	\$566,286
Patit Defensible Space	56	2,405	\$4,530,288
Rock Hill Defensible Space	10	1,078	\$808,980
South Touchet Defensible Space	6	219	\$485,388
South Tucannon Creek Defensible Space	43	1,856	\$3,478,614
Starbuck Defensible Space	283	284	\$22,894,134
Tucannon Hatchery Defensible Space	11	329	\$889,878
Tumalum Creek Defensible Space	37	418	\$2,993,226
Wolf Fork Defensible Space	5	98	\$404,490
Baileysburg Defensible Zone	36	226	\$2,912,328
Camp Wooten Defensible Zone	34	555	\$2,750,532
Rock Hill Defensible Zone	10	1,066	\$808,980
Starbuck Defensible Zone	282	283	\$22,813,236
Tucannon Hatchery Defensible Zone	11	329	\$889,878
Bluewood Fuels Reduction	8	404	\$647,184
Central Columbia CRP Fuel Break	52	23,663	\$4,206,696
Community Protection Fuel Break	0	8,600	\$0
Dayton-Patit CRP Fuel Breaks	360	47,580	\$29,123,280
Goodman Guard Station Fuels Reduction	2	34	\$161,796
Hatley Gulch Midslope Fuel Breaks	0	1,511	\$0
Ladybug Campground Fuels Reduction	1	30	\$80,898
Little Turkey Rec Residence USFS Fuels Reduction	1	40	\$80,898
Patit Creek/Maloney Mtn Fuels Reduction	40	7,709	\$3,235,920
Punjab Camp Ground USFS Fuels Reduction	1	19	\$80,898
Slick Ear Rec Residence USFS Fuels Reduction	1	40	\$80,898
Southwest Dayton Fuel Breaks	105	24,356	\$8,494,290
Tucannon Camp Ground USFS Fuels Reduction	1	29	\$80,898
West Columbia CRP Fuel Breaks	188	61,338	\$15,208,824
East Fork Touchet Roadside Fuels	97	655	\$7,847,106
Hatley Gulch Roadside Fuels	10	181	\$808,980
Jasper Mountain Roadside Fuels	0	143	\$0

CWPP Project Area Valuation Data.

Project Name	Number of Structures	Number of Acres	Total Estimated Value of Structures
Malcolm Grade Roadside Fuels	0	237	\$0
Marll Roadside Fuels	0	72	\$0
Mount Pleasant Roadside Fuels	8	415	\$647,184
North Fork Touchet Roadside Fuels	54	362	\$4,368,492
North Patit Roadside Fuels	54	344	\$4,368,492
Patit/Maloney Mtn Roadside Fuels	40	541	\$3,235,920
Payne Hollow Roadside Fuels	27	344	\$2,184,246
Robinson Fork Roadside Fuels	24	200	\$1,941,552
Rodgers Gulch Roadside Fuels	8	77	\$647,184
Skyline Drive Roadside Fuels	20	271	\$1,617,960
South Fork Touchet River Roadside Fuels	12	363	\$970,776
South Patit Roadside Fuels	22	341	\$1,779,756
Tucannon Roadside Fuels	57	762	\$4,611,186
Tucker Roadside Fuels	5	84	\$404,490
Wolf Fork Roadside Fuels	3	224	\$242,694

Appendix IV

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 V

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.us/linksresearch.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; Washington 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 Washington Square West, New York, NY 10011. Info on Washington programs:
406-722-4564

Appendix VI

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 perseverance 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 VII

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 pre-stated 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.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.

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 flammable 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.g., 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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