Asotin County, Washington

Community Wildfire Protection Plan

July 9th, 2008

Vision: *Institutionalize and promote a countywide wildfire hazard mitigation ethic through leadership, professionalism, and excellence, leading the way to a safe, sustainable Asotin County.*

Rockpile Fire July 2007

This plan was developed by the Asotin County Community Wildfire Protection Plan Planning committee in cooperation with Northwest Management, Inc., 233 E. Palouse River Dr., P.O. Box 9748, Moscow, ID, 83843, Tel: 208-883-4488, www.Consulting-Foresters.com

Acknowledgments

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

Asotin County Commissioners
and the employees of Asotin County

Washington State Department of Natural Resources

Asotin County Conservation District

USDA Forest Service

USDI Fish & Wildlife Service

Asotin County Fire District #1

City of Asotin Fire Department

City of Clarkston Fire Department

U.S. Army Corps of Engineers

USDI Bureau of Land Management

City of Asotin

Town of Anatone

City of Clarkston

Blue Mountain Resource Conservation & Development Council

&

Local Businesses and Citizens of Asotin County

To obtain copies of this plan contact:

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Chapter I

1 Overview of this Plan and its Development

This Community Wildfire Protection Plan (CWPP) for Asotin County, Washington, is the result of analyses, professional cooperation and collaboration, assessments of wildfire risks and other factors considered with the intent to reduce the potential for wildfires to threaten people, structures, infrastructure, and unique ecosystems in Asotin County, Washington. The planning committee responsible for implementing this project was led by the Asotin County Commissioners. Agencies and organizations that participated in the planning process included:

- Asotin County Commissioners and County Departments
- City of Asotin
- City of Clarkston
- Asotin County Fire Districts
- City of Asotin Fire Department
- City of Clarkston Fire Department
- Washington Department of Natural Resources
- Washington Department of Fish and Wildlife
- U.S. Army Corps of Engineers
- Guy Bennett Lumber Company
- Clearwater Power
- Bonneville Power Administration
- Washington Parks and Recreation
- USDI Bureau of Land Management
- Asotin County Conservation District
- Blue Mountain Resource Conservation and Development Council
- USDA Forest Service
- Northwest Management, Inc.

The Asotin County planning committee met regularly during 2007 to establish the committee structure, goals, and strategies. In December and January 2006 - 07, Asotin County in conjunction with neighboring Columbia County and Garfield County solicited competitive bids from companies to provide the service of leading the assessment, developing the data, and writing the **Asotin County Community Wildfire Protection Plan**. Northwest Management, Inc. was selected to provide this service to the Tri – County area. Northwest Management, Inc. (NMI) is a professional natural resources consulting firm located in Moscow, Idaho. Established in 1984, NMI provides natural resource management services across the USA. The Project Co-Managers from Northwest Management, Inc. were Mr. Vaiden Bloch and Mrs. Tera R. King.

1.1 Goals and Guiding Principles

1.1.1 Federal Emergency Management Agency Philosophy

Effective November 1, 2004, a Hazard Mitigation Plan approved by the Federal Emergency Management Agency (FEMA) is required for Hazard Mitigation Grant Program (HMGP) and

Pre-Disaster Mitigation Program (PDM) eligibility. The HMGP and PDM program provide funding, through state emergency management agencies, to support local mitigation planning and projects to reduce potential disaster damages.

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

FEMA only reviews a local Hazard Mitigation Plan submitted through the appropriate State Hazard Mitigation Officer (SHMO). Draft versions of local Hazard Mitigation Plans are not reviewed by FEMA. FEMA reviews the final version of a plan prior to local adoption to determine if the plan meets the criteria, but FEMA will not approve it prior to adoption.

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

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

In Washington the SHMO is:

Mark Stewart
Washington Military Department
Emergency Management Division
Building 20, M/S: TA-20
Camp Murray, WA 98430-5122

The Asotin County Community Wildfire Protection Plan fulfills all of the requirements for a wildfire chapter of a local hazard mitigation plan.

1.1.2 United States Government Accounting Office (GAO)

Since 1984, wildland fires have burned an average of more than 850 homes each year in the United States and, because more people are moving into fire-prone areas bordering wildlands, the number of homes at risk is likely to grow. The primary responsibility for ensuring that preventative steps are taken to protect homes lies with homeowners and state and local governments, not the federal government. Although losses from wildland fires made up only 2

percent of all insured catastrophic losses from 1983 to 2002, fires can result in billions of dollars in damages.

Once a wildland fire starts, various parties can be mobilized to fight it including federal, state, local, and tribal firefighting agencies and, in some cases, the military. The ability to communicate among all parties - known as interoperability - is essential but, as GAO reported previously, is hampered because different public safety agencies operate on different radio frequencies or use incompatible communications equipment (GAO 2005).

GAO was asked to assess, among other issues, (1) measures that can help protect structures from wildland fires, (2) factors affecting use of protective measures, and (3) the role technology plays in improving firefighting agencies' ability to communicate during wildland fires.

The two most effective measures for protecting structures from wildland fires are: (1) creating and maintaining a buffer, called defensible space, from 30 to 100 feet wide around a structure, where vegetation and other flammable objects are reduced or eliminated; and (2) using fire-resistant roofs and vents. In addition to roofs and vents, other technologies – such as fire-resistant windows and building materials, chemical agents, sprinklers, and geographic information systems mapping – can help in protecting structures and communities, but they play a secondary role.

Although protective measures are available, many property owners have not adopted them because of the time or expense involved, competing concerns such as aesthetics or privacy, misperceptions about wildland fire risks, and lack of awareness of their shared responsibility for fire protection. Federal, state, and local governments, as well as other organizations, are attempting to increase property owners' use of protective measures through education, direct monetary assistance, and laws requiring such measures. In addition, some insurance companies have begun to direct property owners in high risk areas to take protective steps.

Existing technologies, such as audio switches, can help link incompatible communication systems, and new technologies, such as software-defined radios, are being developed following common standards or with enhanced capabilities to overcome incompatibility barriers. Technology alone, however, cannot solve communications problems for those responding to wildland fires. Rather, planning and coordination among federal, state, and local public safety agencies is needed to resolve issues such as which technologies to adopt, cost sharing, operating procedures, training , and maintenance. The Department of Homeland Security is leading federal efforts to improve communications interoperability across all levels of government. In addition to federal efforts, several states and local jurisdictions are pursuing initiatives to improve communications interoperability.

1.1.3 Additional State and Federal Guidelines Adopted

This Community Wildfire Protection Plan will include compatibility with the guidelines proposed in the National Fire Plan, the Washington Statewide Implementation Plan, and the Healthy Forests Restoration Act (2004). This Community Wildfire Protection Plan has been prepared in compliance with:

- The National Fire Plan; A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment 10-Year Comprehensive Strategy Implementation Plan–May 2002.
- The Washington Statewide Implementation Strategy for the National Fire Plan–July 2002.
- Healthy Forests Restoration Act (2004)

"When implemented, the 10-Year Comprehensive Strategy will contribute to reducing the risks of wildfire to communities and the environment by building collaboration at all levels of government."
- The NFP 10-Year Comprehensive Strategy August 2001

The objective of combining these three complimentary guidelines is to facilitate an integrated wildland fire risk assessment, identify pre-hazard mitigation activities, and prioritize activities and efforts to achieve the protection of people, structures, the environment, and significant infrastructure in Asotin County while facilitating new opportunities for pre-disaster mitigation funding and cooperation.

1.1.3.1 National Fire Plan

The goals of this Community Wildfire Protection Plan include:

1. Improve Fire Prevention and Suppression
2. Reduce Hazardous Fuels
3. Restore Fire-Adapted Ecosystems
4. Promote Community Assistance

Its three guiding principles are:

1. Priority setting that emphasizes the protection of communities and important watersheds at-risk.
2. Collaboration among governments and broadly representative stakeholders
3. Accountability through performance measures and monitoring for results.

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

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

- Firefighter and public safety continuing as the highest priority.
- A sustained, long-term and cost-effective investment of resources by all public and private parties, recognizing overall budget parameters affecting Federal, State, Tribal, and local governments.
- A unified effort to implement the collaborative framework called for in the Strategy in a manner that ensures timely decisions at each level.
- Accountability for measuring and monitoring performance and outcomes, and a commitment to factoring findings into future decision making activities.
- The achievement of national goals through action at the local level with particular attention on the unique needs of cross-boundary efforts and the importance of funding on-the-ground activities.
- Communities and individuals in the wildland-urban interface to initiate personal stewardship and volunteer actions that will reduce wildland fire risks.

- Management activities, both in the wildland-urban interface and in at-risk areas across the broader landscape.
- Active forestland and rangeland management, including thinning that produces commercial or pre-commercial products, biomass removal and utilization, prescribed fire and other fuels reduction tools to simultaneously meet long-term ecological, economic, and community objectives.

The National Fire Plan identifies a three-tiered organization structure including 1) the local level, 2) state/regional and tribal level, and 3) the national level. This plan adheres to the collaboration and outcomes consistent with a local level plan. Local level collaboration involves participants with direct responsibility for management decisions affecting public and/or private land and resources, fire protection responsibilities, or good working knowledge and interest in local resources. Participants in this planning process include Tribal representatives, local representatives from Federal and State agencies, local governments, landowners and other stakeholders, and community-based groups with a demonstrated commitment to achieving the strategy's four goals. Existing resource advisory committees, watershed councils, or other collaborative entities may serve to achieve coordination at this level. Local involvement, expected to be broadly representative, is a primary source of planning, project prioritization, and resource allocation and coordination at the local level. The role of the private citizen is not to be under estimated, as their input and contribution to all phases of risk assessments, mitigation activities, and project implementation is greatly facilitated by their involvement.

1.1.3.2 Washington Statewide Implementation Strategy

The Strategy adopted by the State of Washington is to provide a framework for an organized and coordinated approach to the implementation of the National Fire Plan, specifically the national "10-Year Comprehensive Strategy Implementation Plan".

Emphasis is on a collaborative approach at the following levels:

- County
- State

Within the State of Washington, the counties, with the assistance of State and Federal agencies and local expert advice, will develop a risk assessment and mitigation plan to identify local vulnerabilities to wildland fire. A Statewide group will provide oversight and prioritization as needed on a statewide scale.

This strategy is not intended to circumvent any work done to date and individual counties should not delay implementing any National Fire Plan projects to develop this county plan. Rather, counties are encouraged to identify priority needs quickly and begin whatever actions necessary to mitigate those vulnerabilities.

It is recognized that implementation activities such as; hazardous fuel treatment, equipment purchases, training, home owner education, community wildland fire mitigation planning, and other activities, will be occurring concurrently with this countywide planning effort.

1.1.3.2.1 County Wildland Fire Interagency Group

Each county within the State has been requested to write a Wildland Fire Mitigation Plan. These plans should contain at least the following five elements:

1) Documentation of the process used to develop the mitigation plan. How the plan was developed, who was involved and how the public was involved.

2) A risk assessment to identify vulnerabilities to wildfire in the wildland-urban interface (WUI).
3) A prioritized mitigation strategy that addresses each of the risks. Examples of these strategies could be: training for fire departments, public education, hazardous fuel treatments, equipment, communications, additional planning, new facilities, infrastructure improvements, code and/or ordinance revision, volunteer efforts, evacuation plans, etc.
4) A process for maintenance of the plan which will include monitoring and evaluation of mitigation activities
5) Documentation that the plan has been formally adopted by the involved agencies. Basically a signature page of all involved officials.

This five-element plan is an abbreviated version of the FEMA mitigation plan and will begin to meet the requirements for that plan.

1.1.3.3 National Association of State Foresters

1.1.3.3.1 Identifying and Prioritizing Communities at Risk

This plan is written with the intent to provide the information necessary for decision makers (elected officials) to make informed decisions in order to prioritize projects across the entire county. These decisions may be made from within the council of Commissioners, or through the recommendations of ad hoc groups tasked with making prioritized lists of projects. It is not necessary to rank projects numerically, although that is one approach, rather it may be possible to rank them categorically (high priority set, medium priority set, and so forth) and still accomplish the goals and objectives set forth in this planning document.

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

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

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

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

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

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

1.1.3.3.2 Conceptual Approach

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

- Last, set priorities by looking for projects that best meet the three criteria above. It is important to note that projects with the greatest potential to reduce risk to communities and the landscape may not be those in the highest risk zone, particularly if either the community or the surrounding landowner is not willing or able to actively participate.

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

Similarly, scattered, individual homes that complete projects to create defensible space could be "counted" as "households at reduced risk". This would be a way to report progress in reducing risk to scattered homes in areas of low priority for large-scale fuels treatment projects.

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

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

1.1.3.4 Healthy Forests Restoration Act

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

Among other things the Healthy Forests Restoration Act (HFRA):

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

The Asotin County Community Wildfire Protection Plan is developed to adhere to the principles of the HFRA while providing recommendations consistent with the policy document which should assist the federal land management agencies (US Forest Service and Bureau of Land Management) with implementing wildfire mitigation projects in Asotin County that incorporate

public involvement and the input from a wide spectrum of fire and emergency services providers in the region.

1.1.4 Planning Philosophy and Goals

1.1.4.1 Asotin County Fire Mitigation Planning Effort and Philosophy

The goals of this planning process include the integration of the National Fire Plan, the Washington Statewide Implementation Strategy, and the Healthy Forests Restoration Act. This effort will utilize the best and most appropriate science from all partners and integrate local and regional knowledge about wildfire risks and fire behavior while meeting the needs of local citizens, the regional economy, and the significance of this region to the rest of Washington and the Inland West.

1.1.4.1.1 Mission Statement

To make Asotin 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.

1.1.4.1.2 Vision Statement

Institutionalize and promote a countywide wildfire hazard mitigation ethic through leadership, professionalism, and excellence, leading the way to a safe, sustainable Asotin County.

1.1.4.1.3 Goals

- Identify and map Wildland Urban Interface (WUI) boundaries for communities adjacent to forest lands
- To reduce the area of WUI land burned and losses experienced because of wildfires where these fires threaten communities in the wildland-urban interface
- Prioritize the protection of people, structures, infrastructure, natural resources, and unique ecosystems that contribute to our way of life and the sustainability of the local and regional economy
- To provide a plan that will not diminish the private property rights of landowners in Asotin County
- Educate communities about the unique challenges of wildfire in the wildland-urban interface (WUI)
- Recommend additional strategies for private, state, and federal lands to reduce hazardous fuel conditions and lessen the life safety and property damage risks from wildfires
- Improve fire agency's awareness of wildland fire threats, vulnerabilities, and mitigation opportunities or options
- Address structural ignitability and recommend measures that homeowners and communities can take to reduce the ignitability of structures

- Identify and evaluate hazardous fuel conditions with an emphasis near communities adjacent to forest lands, prioritize areas for hazardous fuel reduction treatments, and recommend the types and methods of treatment to protect the communities
- Provide opportunities for meaningful discussions among community members and local, state, and federal government representatives regarding their priorities for local fire protection and forest management
- Improve county and local fire agency's eligibility for funding assistance (National Fire Plan, Healthy Forest Restoration Act, FEMA, and other sources) to reduce wildfire hazards, prepare residents for wildfire situations, and enhance response capabilities
- Meet or exceed the requirements of the National Fire Plan and FEMA for a County level Community Wildfire Protection Plan

1.1.5 Integration with Other Planning Efforts

During development of this Community Wildfire Protection Plan, several planning and management documents were reviewed in order to avoid conflicting goals and objectives. Existing programs and policies were reviewed in order to identify those that may weaken or enhance the mitigation objectives outlined in this document. The following sections identify and briefly describe some of the existing Asotin County planning documents and ordinances considered during development of this plan.

1.1.5.1 Asotin County Comprehensive Plan – 1999

With continued growth and change expected in the Asotin County region, it is important that the County formulate a clear vision for its future. The Comprehensive Plan provides the County with an opportunity to articulate that vision into reality. The citizens of Asotin County envision a community that respects and preserves its historical and cultural resources and provides an effective stewardship of its outstanding scenic and natural features; a community that maintains its historic rural identity while encouraging a balanced, cohesive yet diverse community as it grows, a community that continues to thrive in its location wher residents' various physical, educational, economic, and social activities can be pursued in a safe, attractive, and healthy environment; and finally, a community that has an adequate tax base to provide a high level of service to its residents. The Plan represents the community's policy plan for growth over the next 20 years.

It is anticipated that the Community Wildfire Protection Plan will dovetail with the County Comprehensive Plan. Many of the wildfire assessments, goals, and projects as outlined by the CWPP planning committee will be considered as the Comprehensive Plan is updated.

1.1.5.2 Asotin County Zoning Ordinance – April 2001

The purpose of the Asotin County Zoning Ordinance is to promote the orderly development of the city according to a comprehensive plan; to reserve and stabilize the value of property; to encourage protection of critical areas of the environment; to protect the character and peculiar qualities of scenic areas and places of historic interest; to promote measures which preserve or improve the County's quality of life; and otherwise to promote the public health, safety, and general welfare.

It is anticipated that the Community Wildfire Protection Plan will assist local decision-makers by providing information on wildfire occurrence in Asotin County, which can be used to address zoning issues in high risk wildfire areas. Additionally, many of the wildfire assessments, goals,

and projects as outlined by the CWPP planning committee will be considered as the Comprehensive Plan is updated.

Chapter 2

2 Documenting the Planning Process

Documentation of the planning process, including public involvement, is required to meet FEMA's DMA 2000 (44CFR§201.4(c)(1) and §201.6(c)(1)). This section includes a description of the planning process used to develop this plan, including how it was prepared, who was involved in the process, and how all of the involved agencies participated.

2.1 Description of the Planning Process

The Asotin County Community Wildfire Protection Plan was developed through a collaborative process involving all of the organizations and agencies detailed in Chapter 1 of this document. The planning process included five distinct phases which were in some cases sequential (step 1 then step 2) and in some cases intermixed (step 4 completed throughout the process):

1. **Collection of Data** about the extent and periodicity of hazards in and around Asotin County. This included an area encompassing Asotin, Garfield, and Columbia Counties to ensure a robust dataset for making inferences about hazards in Asotin County specifically.
2. **Field Observations and Estimations** about risks, juxtaposition of structures and infrastructure to risk areas, access, and potential treatments.
3. **Mapping** of data relevant to pre-disaster mitigation control and treatments, structures, resource values, infrastructure, risk assessments, and related data.
4. **Facilitation of Public Involvement** from the formation of the planning committee, to a public mail survey, news releases, public meetings, public review of draft documents, and acknowledgement of the final plan by the signatory representatives.
5. **Analysis and Drafting of the Report** to integrate the results of the planning process, providing ample review and integration of committee and public input, followed by signing of the final document.

2.2 The Planning Team

Leading planning efforts from Asotin County as project co-coordinators was Megan Stewart, Asotin County Conservation District, Jay Holzmiller, Anatone resident, and the Blue Mountain RC&D Council. Northwest Management Project Co-Managers were Tera R. King, B.S. and Vaiden Bloch M.S. Mrs. King received a Bachelor of Science degree in natural resource management from the University of Idaho and Mr. Bloch has earned a Master of Science degree in forest products and a Bachelor of Science degree in forest management from the University of Idaho.

These individuals led a team of resource professionals that included Asotin County government, incorporated city officials, fire protection districts, law enforcement, Washington Department of Natural Resources, Conservation Districts, the US Forest Service, fire mitigation specialists, resource management professionals, local residents, and others.

The planning team met with many residents of the County during the inspections of communities, infrastructure, and hazard abatement assessments. This methodology, when coupled with the other approaches in this process, worked adequately to integrate a wide spectrum of observations and interpretations about the project.

The planning philosophy employed in this project included the open and free sharing of information with interested parties. Information from federal and state agencies was integrated into the database of knowledge used in this project. Meetings with the committee were held throughout the planning process to facilitate a sharing of information between cooperators.

When the public meetings were held, many of the committee members were in attendance and shared their support and experiences with the planning process and their interpretations of the results.

2.2.1 Multi-Jurisdictional Participation

CFR requirement §201.6(a)(3) calls for multi-jurisdictional planning in the development of Hazard Mitigation Plans which impact multiple jurisdictions. This Community Wildfire Protection Plan is applicable to the following jurisdictions:

- Asotin County, Washington
- City of Asotin
- City of Clarkston
- Asotin County Fire District #1
- City of Asotin Fire Department
- City of Clarkston Fire Department

These jurisdictions were represented on the planning committee, in public meetings, and participated in the development of hazard profiles, risk assessments, and mitigation measures. The monthly planning committee meetings were the primary venue for authenticating the planning record. However, additional input was gathered from each jurisdiction in a combination of the following ways:

- Planning committee leadership visits to scheduled municipality public meetings (e.g., county commissioner meetings, city hall meetings) where planning updates were provided and information was exchanged.
- One-on-one visits between the planning committee leadership and the representatives of the municipalities (e.g., meetings with county commissioners, city, fire districts, or communities).
- Special meetings at each jurisdiction by the planning committee leadership requested by the municipality involving elected officials (mayor and County Commissioners), appointed officials (e.g., County Assessor, Sheriff, City Police), municipality employees, local volunteers (e.g., fire district volunteers), business community representatives, and local citizenry.
- Written correspondence was provided monthly between the planning committee leadership and each municipality updating the cooperators in the planning process, making requests for information, and facilitating feedback.

Planning committee leadership (referenced above) included: Commissioner Don Brown, Megan Stewart, Jay Holzmiller, Jerry Hendrickson, and Tera King and Vaiden Bloch of Northwest Management, Inc.

Like other rural areas of Washington and the USA, Asotin County's human resources have many demands put on them in terms of time and availability. Several of the elected officials (county commissioners and city mayors) do not serve in a full-time capacity; some of them have other employment and serve the community through a convention of community service. Recognizing this, many of the jurisdictions decided to identify a representative to cooperate on

the planning committee and then report back to the remainder of their organization on the process and serve as a conduit between the planning committee and the jurisdiction. In the case of the Asotin County Commissioners, Commissioner Brown was a regular attendee of the planning committee meetings and reported to the Board on the progress of the Asotin County CWPP.

2.3 Planning Committee Meetings

The following list of people who participated in the planning committee meetings, volunteered time, or responded to elements of the Asotin County Community Wildfire Protection Plan's preparation.

NAME	ORGANIZATION
Barb Appleford	Asotin County resident
Bill Schlosser	Northwest Management, Inc.
Bob Dice	Washington Dept Fish and Wildlife
Brit Ausman	Asotin County resident
Butch Aiken	Asotin County Disaster & Emergency Management
Casey Hagenah	Asotin County resident
Corinne Thompson	Asotin County resident
Dan Schlee	Asotin County resident
Dan Sokoloski	Asotin County resident
Dave Fritts	Guy Bennett Lumber
Dave Weissenfels	Asotin Fire Chief
David Browne	Asotin County resident
Dick Allen	Asotin County resident
Don Brown	Asotin County Commissioner
Gail Hagenah	Asotin County resident
Harold Thompson	Asotin County resident
Jason Schlee	Asotin County resident
Jay Holzmiller	Asotin County resident
Jenny Scott	Asotin County resident
Jerry Hendrickson	Asotin County resident
Joe Weeks	Washington Dept of Natural Resources
Jynelle Mellen	Asotin County resident
Keith Ausman	Asotin County resident
Ken Bancroft	Asotin County Sheriff
Lisa Naylor	Blue Mountain RC&D
Megan Stewart	Conservation District
Mike Butler	Corps of Engineers
Mike Haberman	Asotin County resident
Mike Hohman	Asotin County Fire District #1
Noel Hardin	Fire District #1
Rod Hostetler	Asotin County resident
Rod Marshal	Asotin County Search and Rescue
Shaun Bristol	Washington Parks and Recreation
Stan Vannoy	Clearwater Power
Steve Carlson	Pomeroy Ranger District
Steve Cooper	Clarkston Mayor's Representative

- Susie Appleford.....Asotin County resident
- Tara Hanger.....Pomeroy Ranger District
- Tera King.....Northwest Management, Inc.
- Tom Petty.....Asotin County resident
- Vaiden Bloch.....Northwest Management, Inc.

2.3.1.1 Committee Meeting Minutes

The Planning committee began meeting in early 2006 to lay the ground work for the Asotin County CWPP. Northwest Management, Inc. was hired and began attending regular planning committee meetings in January of 2007.

2.3.1.1.1 March 29th, 2007 – Asotin County Aquatic Center

Agenda Item #1 – Call to Order:

Tera called the meeting to order by asking for a round table introduction of the committee members. Lisa kicked off the meeting by giving some background on the Community Wildfire Protection Plan (CWPP) project up to this point.

Agenda Item #2 – Overview of Process:

Joe Weeks with the Washington Department of Natural Resources gave a very helpful explanation of where and why Community Wildfire Protection Plans (both local and county-wide) originated. He also explained how having a CWPP in place can help a community prepare and respond to a wildfire situation.

In order to give the committee an overview of the whole planning process and make sure everyone understood the purpose of the CWPP, Northwest Management (NMI) prepared a PowerPoint presentation that went through each of the steps as well as introduced the company to the committee members. However, due to a projector malfunction, the presentation was given with no visual aids. Several of the discussion points in the presentation sparked comments and questions from the committee.

Agenda Item #3 – Discuss Mission, Vision, and Goals Statements:

Tera handed out a rough draft of potential mission, vision, and goals statements that will help guide the planning process. She noted that these were just suggestions and asked the committee to review the statements and provide comments to NMI by the next committee meeting.

Agenda Item #4 – Public Survey and Press Release:

Rough drafts of the public survey were handed out. Vaiden and Tera explained that the survey provided the committee with valuable insights on how residents of Asotin County view the fire risk as well as provides some awareness information. The committee decided to review the survey on their own and provide edits to Tera by April 23rd. She will make the corrections and bring the revised version as well as the potential mailing list to the next committee meeting. Vaiden will work with the Assessor's office to get the necessary data to conduct the surveys. It was noted that the survey would reach a better sampling of the County if the cities were excluded.

Agenda Item #5 – Resource and Capability Questionnaire:

Tera handed out the Resources and Capabilities questionnaire pointing out that this was directed at the fire district and the agencies with wildfire responsibility. The purpose of these

questionnaires is not only to provide a summary of the district's capabilities, interagency agreements, and equipment, but also to identify problem areas and current needs. Tera asked that these surveys be filled out by fire departments as well as agencies with fire protection responsibilities by the next committee meeting.

There was a short discussion on the need for identification and mapping of existing water resources across the County. This should be recognized as an action item in the Plan. It was also noted that there are large portions of populated areas in Asotin County that are currently not within a Fire District's protection area, specifically the Anatone area. Formation of a new fire protection district(s) or annexation into current district(s) should be recognized and discussed at subsequent committee meetings. NMI will be mapping the current fire district boundaries to help with the development of this recommendation.

Agenda Item #6 – Community Risk Assessments:

The purpose of the community risk assessments is to provide a narrative of the fire risk within the county in addition to the mapping and modeling analyses. NMI staff will be in Asotin County in the following weeks doing risk evaluations to be presented as rough drafts at the next committee meeting. Several members of the committee offered tours of their area of expertise.

The committee requested that the DNR provide their after-action review summaries to help identify some of the problems experienced on the School Fire and Columbia Complex. This may help shape the development of solutions in Asotin County prior to an incident.

Improving communications across the county as well as between agencies, departments, landowners, etc. needs to be addressed in Asotin County and the Tri-County area.

Agenda Item #7 – Past, Ongoing, or Proposed Mitigation Activities:

Tera pointed out that it was important to discuss mitigation activities or programs already occurring in the County in the CWPP. Any information the committee has regarding recently past, ongoing, or planned mitigation projects (educational, fuels reduction, policy, existing CWPPs, etc) needs to be sent to NMI.

Agenda Item #8 – Timeline:

Tera discussed the tentative timeline for completion handed out with the agenda. Although the meeting dates may not be exact, this gives a month-by-month run down of tasks including an October adoption of the plan. The public meetings are tentatively scheduled for the end of May; however, if there are other events that could facilitate some public involvement in the project, these should also be considered. The Asotin County Fair is April 28th – 30th. This would be a good opportunity to provide some public involvement and awareness of the CWPP planning process. Megan agreed to send NMI contact information for setting up a booth at the Fair.

Agenda Item #9 – Task List and Assignments:

Information can be sent to Tera King at king@consulting-foresters.com .*

1. Send NMI info on existing mitigation programs, plans, etc – Committee
2. Review/send edits on Mission, Vision, and Goals Statements by next meeting – Committee
3. Review public survey and send edits to NMI by April 23rd – Committee
4. Conduct field community assessments by next meeting – NMI
5. Send committee all review materials electronically – Tera
6. Send Tera Asotin County Fair booth contact info – Megan
7. Set up CWPP booth at the Asotin County Fair - NMI
8. Work with Assessor's office to get cadastral data – Vaiden

9. Obtain copies of DNR's after action reviews of the School Fire and Columbia Complex - Joe
10. Send NMI completed Resources and Capabilities surveys by next meeting – Fire Depts & Agencies
11. Send NMI organization logos by the next meeting - Committee

Agenda Item #10 – Adjournment:

Tera adjourned the meeting at approximately 1830 hours.

Next Meeting: May 3rd at 5:00 pm at the Asotin County Aquatic Center (same location)

2.3.1.1.2 May 3rd, 2007 – Asotin County Aquatic Center

Agenda Item #1 – Call to Order:

Bill kicked off the meeting by welcoming everybody to the table and pointing out the sign in sheet as well as the handouts available.

Agenda Item #2 – Review Mission Statement and Vision Statement:

Bill briefly revisited the Mission, Vision, and Goals statements noting that he hadn't received any edits so far. Bill also reiterated the purpose of the CWPP as well as how it will be arranged and what the potential benefits will be to the County.

Agenda Item #3 – Review of Risk Mapping in Tri-County Area:

NMI has completed the initial risk modeling maps and basic GIS layers (roads, streams, landownership, etc.). Bill gave an in-depth explanation of what each map represented and how it could be used by the committee. Included in the map set was a preliminary structure density model that other county CWPP committees have adopted as their Wildland Urban Interface. Bill explained the usefulness of this type of mapping, particularly that it was an unbiased method of determining the WUI. These maps will be discussed in greater detail at subsequent meetings; however, Bill did ask that the committee take a few moments to look at the maps before they left.

During the mapping discussion, it was noted that the Fire Prone Landscapes map showed agricultural lands in the county as not having as much potential ignition risk as forest areas. The committee felt that CRP and other no-till farming practices increased the fire risk and should be mapped as such. Emily Ruchert in Pomeroy is making a request for map layers of all the CRP fields on behalf of the 3 County area from the Farm Services Agency. Chief Hardin can also put together some ignition and extent data for the private lands, which will help show the potential risk in the agricultural/pastureland areas. Since it would be impossible to accurately map chem. fallow fields in this type of planning process, a discussion on the increased fire risk resulting from this type of farming practice should be included in the document.

Stan Vannoy should have GIS layers of the power lines and other significant infrastructure. John Guillotte with Public Works should have the fire district boundary layers and updated road layer.

Agenda Item #4 – Public Involvement:

NMI is still working on getting the cadastral data from the Assessor's Office to be used in the public mail survey. This will be completed within the next two weeks. The survey will be sent to a sample of 300 with a limit of 75 going to Clarkston residents.

The public meetings were scheduled for June 13th. There will be a noon meeting at the Asotin County Fairgrounds, Bennett Building and an evening (6:30 pm) meeting at the Anatone

Community Center. NMI will produce contact the venues and produce announcement flyers and a press release.

Agenda Item #5 – Resources and Capabilities:

Bill noted that NMI needs the Resources and Capabilities summaries from each fire department and agency. NMI has received the City of Asotin Fire Department's so far. We also need to remind Bob Dice to provide a summary for the Fish and Wildlife Service.

Agenda Item #6 – Community Risk Assessments:

The purpose of the community risk assessments is to provide a narrative of the fire risk within the county in addition to the mapping and modeling analyses. Bill spent several days touring the County during April to produce the written community risk assessments included in the handouts. This documentation will make up a significant portion of the final CWPP. He asked that the committee review his write-ups for both accuracy of content and format preferences and provide comments by May 31st.

Either the Baker City or Spokane BLM District should have additional statistics on wildfire extents and ignition profiles for the 3 County area. Chief Hardin agreed to write a few personal narratives of some of the significant fires.

Water availability in the Anatone area is very limited. The committee discussed including an action item in the document to map all available water sources in the county as well as add some additional sources such as drafting sites or dry hydrants to assist firefighters.

Building codes related to fire safety and defensibility throughout the county should also be discussed as a potential action item.

Agenda Item #7 – Past, Ongoing, or Proposed Mitigation Activities:

Bill reiterated the need to discuss mitigation activities or programs already occurring in the County in the CWPP. Any information the committee has regarding recently past, ongoing, or planned mitigation projects (educational, fuels reduction, policy, existing CWPPs, etc) needs to be sent to NMI. Tara Hanger provided information on the Forest Service's fuel treatment projects.

Agenda Item #8 – Task List and Assignments:

Information can be sent to Tera King at king@consulting-foresters.com . *

1. Send NMI info on existing mitigation programs, plans, etc – Committee
2. Review/send edits on Mission, Vision, and Goals Statements by next meeting – Committee
3. Schedule public meeting and contact potential venues – NMI
4. Review Community Assessment packet and provide edits by May 31st – Committee
5. Develop public meeting flyer – NMI
6. Provide NMI with CRP map layers from FSA – Emily Ruchert
7. Compile fire history data - Chief Hardin and NMI
8. Send NMI completed Resources and Capabilities surveys by next meeting – Fire Depts & Agencies
9. Send NMI organization logos by the next meeting - Committee

Agenda Item #9 – Adjournment:

The meeting was adjourned at approximately 7 pm.

Next Meeting: June 7th at the Asotin County Aquatic Center at 5 pm (same location)

2.3.1.1.3 June 7th, 2007 – Asotin County Aquatic Center

Agenda Item #1 – Call to Order:

Tera kicked off the meeting by welcoming everybody to the table and pointing out the sign in sheet as well as the handouts were available at the front.

Agenda Item #2 – Public Involvement:

Tera went over the agenda for the public meetings, which will occur on June 13th, 2007. She reiterated the importance of the committee to be at the public meetings to show support on the important issues in the county. Tera asked for any input on the appearance of the flyer, which will be displayed at public venues all over the county. The committee liked the appearance and wanted to start getting it displayed as soon as possible. Suggestions were given for places the flyers could be placed such as the Fairgrounds, local post offices, local bars, and grocery stores. Lisa had recently sent out a press release announcing the meeting to the local papers. It was also suggested that NMI send the information to KLEW Channel 3 TV and to the local radio stations.

NMI sent the first in a series of three mailings of the public survey to 360 Asotin County homeowners last week.

Agenda Item #3 – Community Risk Assessments:

Tera asked if there was any edits to the Chapter 4 material handed out at the previous meeting. Megan and Keith Ausman provided new edits that will be corrected. Tera commented on the fact that she would like to have Chapter 4 complete by the following meeting, so if there were any more corrections to please send them to NMI as soon as possible.

Agenda Item #4 – Chapter 1 Review:

Tera handed out a draft of Chapter 1 – Plan Introduction. She explained that this chapter serves as an introduction to the document. Much of the information presented outlines the different planning guidelines rather than specific information about Asotin County. Tera asked the committee to review the chapter for any edits needed and to send them to NMI before the next meeting.

Tera noted that if anyone would like their agency/organization logo(s) on the document acknowledgments page to please send them to NMI right away. The logos will be placed in the Acknowledges page of chapter 1, on committee maps, and on the free maps that are given to people who respond to the survey.

Tera asked the committee if Asotin County had a Hazard Mitigation Plan and/or a County Comprehensive Plan and if she could get copies of them. Lisa was given both documents and will be able to provide them to Tera. NMI will review these additional documents in order to insure that the CWPP does not make any recommendations that conflict with County policies.

Agenda Item #5 – GIS Data:

Tera commented that NMI has been receiving GIS data from the county, but there are still some needed corrections between Bennett Lumber and Washington DNR land. This was corrected by Dave Fritts and Megan Stewart at the meeting.

Emily Ruchert in Pomeroy was able to get CRP data for all three counties. NMI will incorporate this data into the maps presented at the public meetings.

Agenda Item #6 – Working Groups:

At the end of the meeting, the committee broke into two groups around a map to begin outlining potential project/treatment areas and areas of high risk. Numerous different projects were identified, many with specific recommendations for treatment. NMI will work on digitizing these boundaries to be displayed at the public meeting and in the draft document.

Agenda Item #7 – Open Discussion:

There was a discussion on the enforcement of Washington road standards by the county. It was suggested to include a recommendation for enforcement of already in place fire codes on new roads by the county into the CWPP.

Agenda Item #8 – Task List and Assignments:

Information can be sent to Tera King at king@consulting-foresters.com .*

1. Send NMI info on existing mitigation programs, plans, etc – Committee
2. Review/send edits on Chapter 1 - Plan Introduction by July 12th – Committee
3. Continue review of Chapter 4 and send edits by July 12th – Committee
4. Contact Lisa for access to other county planning documents – NMI
5. Revise maps for public meeting – NMI
6. Compile fire history data - Chief Hardin and NMI
7. Send NMI completed Resources and Capabilities surveys by next meeting – Fire Depts & Agencies
8. Send NMI organization logos by the next meeting - Committee

Agenda Item #9 – Adjournment:

The meeting was adjourned at approximately 7 pm. Next Meeting: July 11th at the Fire District Station at 5 pm (2314 Appleside – across from Grumpy's)

2.3.1.1.4 July 11th, 2007 – Asotin County Fire District #1 Station

Agenda Item #1 – Call to Order:

Tera kicked off the meeting by welcoming everybody to the table and passing around the draft as well as the sign in sheet.

Agenda Item #2 – Housekeeping Items:

Vaiden gave a quick review of the recent Rockpile Creek Fire and subsequent public meeting in Asotin County. He noted that many of the concerns discussed at the meeting were or needed to be included in the CWPP. Many of the issues discussed at the meeting were similar to the issues faced on both the School Fire and the Columbia Complex in 2005 and 2006, respectively. This just reiterates the need for improvement.

Tera also noted that the last mailing of the public survey had been sent. There has been an excellent response from Asotin County residents with nearly 40% returned already.

Due to the interest this season's fires have generated, the committee felt that one additional public meeting would be beneficial. This meeting will be held on July 24th at the Bennett Building at 7 pm. The committee will help disseminate information and NMI will make sure the announcement is printed in the Lewiston Tribune.

Agenda Item #3 – Draft Review:

Tera handed out the first complete draft of the CWPP. Several of the sections have already been reviewed by the committee. Tera went through each chapter explaining some of the content and formatting. There were in depth discussions on several of the items in the "County

Issues" section, which resulted in changes to the draft. The committee made numerous other corrections as they went, but Tera asked the committee to provide additional comments on the draft by the next meeting.

Agenda Item #4 – Maps:

NMI did not bring any new wall maps; however, the most recent versions of the treatment map and the CRP acres were included in the agenda packet. All of the maps will be included in the Appendices.

Agenda Item #5 – Schedule:

July – September: Committee Review Process

September – October: Public Review

October – November: Adoption

Agenda Item #6 – Task List and Assignments:

Information can be sent to Tera King at king@consulting-foresters.com .**

1. Send NMI info on existing mitigation programs, plans, etc – Committee
2. Complete missing/edited sections of draft CWPP - NMI
3. Review/send edits on Draft CWPP by next meeting – Committee

Agenda Item #7 – Adjournment:

The meeting was adjourned at approximately 7 pm.
Next Meeting: August 15th at the Fire District Station at 5 pm
2314 Appleside – across from Grumpy's

2.3.1.1.5 August 15th, 2007 – Asotin County Fire District #1 Station

Agenda Item #1 – Call to Order:

Tera kicked off the meeting by welcoming everybody to the table and passing around the updated draft documents as well as the sign in sheet.

Agenda Item #2 – Housekeeping Items:

Tera gave a brief overview regarding the July 24th public meeting, which drew in approximately 22 attendees. Several members of the committee were in attendance at the public meeting resulting in a very productive discussion of the issues as well as potential mitigation actions.

The last mailing of the survey has been completed and as of August 15th, Asotin County has a 42% response rate. Tera expects that a few more will trickle in. The results of the survey will be summarized for the next meeting.

Agenda Item #3 – Appendices Review:

Tera handed out copies of the draft Appendices, which includes all of the maps, surveys, prioritization data, and glossary of terms as well as information on potential funding sources. Most of the material in the Appendices has been reviewed by the committee already or is a supplement to information presented in the main document. Tera asked that the committee review the material for accuracy and send any edits to her by the next meeting.

Agenda Item #4 – Draft Review:

Rather than print the entire draft again, Tera handed out packets of only the information that had changed since the July meeting. She went through each section noting the new material as well

as what was still missing. So far, she has not received many edits to the original draft. She asked that the committee please begin sending edits as the data gathering process is almost complete. The committee should begin thinking about finalizing the draft in order to begin the public review process. This will be the focus of the September meeting.

Agenda Item #5 – Prioritization Process:

Using the prioritization scheme outlined in Chapter 5 of the draft, Tera has begun to prioritize the action items listed in the Chapter 5 tables. Tera went over the information used in the prioritization process and asked if the committee had any revisions on the cost figures or any of the other criteria scores. The committee approved the use of this prioritization scheme; therefore, Tera will work on prioritizing the specific committee projects for the next meeting.

Agenda Item #6 – Task List and Assignments:

Information can be sent to Tera King at king@consulting-foresters.com .*

1. Send NMI edits on any of the material handed out so far – Committee
2. Complete missing/edited sections of draft CWPP - NMI

Agenda Item #7 – Adjournment:

The meeting was adjourned at approximately 7 pm.
Next Meeting: September 19th at the Fire District Station at 5 pm
2314 Appleside – across from Grumpy's

2.3.1.1.6 September 19th, 2007 – Asotin County Fire District #1 Station

Agenda Item #1 – Call to Order:

Tera kicked off the meeting by welcoming everybody to the table and passing around the updated draft documents as well as the sign in sheet.

Agenda Item #2 – Public Draft Review:

The committee went through each new section of the draft including the public survey results, project tables, and the prioritization tables. There were several discussions regarding the accuracy of statements and usefulness of the information. The committee made numerous minor changes that will help clarify the information presented.

Agenda Item #3 – Public Review Phase:

Tera explained the public review process discussing potential dates as well as the best local venues to have the documents available. The following schedule was determined:

September 28th – NMI to post revised documents on website for final committee review

October 5th – Final deadline for committee edits before public review.

October 12th – Public review phase begins (docs are available at venues & press releases posted).

November 9th – End public review phase

November 14th – Tentative committee meeting to discuss public comments, if necessary.

The documents will be available at the Asotin Fire District #1 station, the Pautler Senior Center, the Anatone post office, the Conservation District office, the Courthouse, the Courthouse Annex, Asotin City Hall, Clarkston City Hall, and the County Library. Tera will send the committee a draft press release on the 28th.

Agenda Item #4 – Adjournment:

The meeting was adjourned at approximately 7 pm.
Next Meeting: TBA following public review

2.4 Public Involvement

Public involvement in this plan was made a priority from the inception of the project. There were a number of ways that public involvement was sought and facilitated. In some cases this led to members of the public providing information and seeking an active role in protecting their own homes and businesses, while in other cases it led to the public becoming more aware of the process without becoming directly involved in the planning.

2.4.1 News Releases

Under the auspices of the Asotin County planning committee, news releases were submitted to local newspapers and informative flyers were also distributed around town and to local offices within the communities.

Figure 2.1 *Lewiston Morning Tribune* article published on July 10, 2007.

Meeting tonight will focus on rural firefighting strategies

State land management and firefighting officials will conduct a meeting in conjunction with Asotin County tonight to discuss firefighting strategies in remote areas of the county.

The meeting will be hosted by officials from the Washington Department of Natural Resources, and include Asotin County commissioners, Department of Fish and Wildlife and Asotin County Fire District No. 1 officials.

The 7 p.m. meeting will be at the Bennett Pavilion at the Asotin County Fairgrounds and will begin with an update on the Rockpile Creek Fire that burned private and public ground in the George Creek drainage. The rest of the meeting will concentrate on the Asotin County Community Wildfire Protection Plan, which will guide future wildland firefighting efforts in the county.

Many rural areas of Asotin County are without fire protection. Much of the private land that burned in the Rockpile Creek Fire was outside of any fire protection districts. Tempers flared when the suppression strategy of the Department of Natural Resources differed with the desires of some local residents.

Fire crews continued to put out hot spots Monday. The area was remapped and is now estimated to have burned 17,000 acres. Officials believe it started from fireworks at the Rockpile Canyon Trailhead managed by the Department of Fish and Wildlife.

2.4.2 Public Mail Survey

A survey of Asotin County homeowners was conducted to collect a broad base of perceptions about wildland fire and individual risk factors. Approximately 303 county residents were randomly selected to receive the survey.

The survey developed for this project has been used in the past by Northwest Management, Inc. during the preparation of other mitigation plans. The survey uses the Total Design Method (Dillman 1978) as a model to schedule the timing and content of letters sent to selected recipients. Copies of each cover letter and survey are included in Appendix II.

The first in the series of mailings was sent on June 6, 2007, and included a cover letter, a survey form, and an offer of receiving a custom GIS map of the area if they would complete and return the survey. The free map incentive was tied into assisting their community and helping their interests by participating in the process. Each letter also informed residents about the planning process. A return, self-addressed envelope was included in each packet. A postcard reminder was sent to non-respondents on June 28, 2007, encouraging their response. A final mailing, with a revised cover letter urging them to participate, was sent to non-respondents on July 12, 2007.

Surveys were returned during the months of June, July, and August. A total of 128 residents responded to the survey as of September 18, 2007. The effective response rate for this survey was 42%. Statistically, this response rate allows the interpretation of all of the response variables significantly at the 99% confidence level.

2.4.2.1 Survey Results

A summary of the survey's results is presented here and referred back to during the ensuing discussions on the need for various treatments, education, and other information.

Of the 128 respondents in the survey, approximately 48% were from the Asotin area, 30% were from Clarkston, 13% lived near Anatone, and the remaining respondents were from other areas in the county at a rate of about 1% or 2% per community.

All but one respondent correctly identified that they have emergency telephone 911 services in their area. When asked if their home was protected by a local fire department, approximately 16% indicated that they were within a fire protection district, when, in fact, they are not. 60% of those that believed they are within a fire protection district said that the average response time by a fire department to their home was less than 10 minutes, 29% thought the average response time was between 10 and 20 minutes, 10% of respondents thought that a fire department would be there within 20 to 30 minutes, 0% thought it would take 30 to 45 minutes, and 1% thought it would take longer than 45 minutes.

Respondents were asked to indicate the type of roofing material covering the main structure of their home. Approximately 61% of respondents indicated their homes were covered with a composite material (asphalt shingles). About 25% indicated their homes were covered with a metal (e.g., aluminum, tin) roofing material, and 9% 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, only 10% indicated there were none, 61% said less than 10, 19% said between 10 and 25 trees, and 9% indicated more than 25 trees. 87% of respondents replied that they had a lawn and 98% of those said they kept it green year round.

The average driveway length of respondents to the survey was 335 feet long (.06 miles). The longest reported was 1 mile. Of those respondents (7%) with a driveway over ¼ mile long, 47% do not have turnouts allowing two vehicles to pass. 6% of respondents with a driveway indicated having a dirt surface, while 66% had gravel or rock and 29% had a paved driveway. Approximately 70% of the respondents indicated an alternate escape route was available in an emergency that cut off their primary driveway access.

100% of respondents indicated they have some type of tools to use against a wildfire that threatens their home. Table 2.1 summarizes these responses.

Table 2.1. Percent of homes with firefighting tools in Asotin County.

98% – Hand tools (shovel, axe, etc.)

18% – Portable water tank

6% – Fixed/Stationary water tank

48% – Pond, lake, swimming pool, or stream water supply close

8% – Water pump and fire hose

36% – Well or cistern

19% – Equipment suitable for creating fire breaks (bulldozer, cat, farm tractor, etc.)

20% of respondents indicated that they had fuel storage near their home that could be at risk of ignition by wildfire.

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 (Table 2.2).

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

Table 2.2. Fuel Hazard Rating Worksheet		**Rating**	**Results**
Fuel Hazard	Small, light fuels (grasses, forbs, weeds, shrubs)	1	61%
	Medium size fuels (brush, large shrubs, small trees)	2	32%
	Heavy, large fuels (woodlands, timber, heavy brush)	3	7%
Slope Hazard	Mild slopes (0-5%)	1	59%
	Moderate slope (6-20%)	2	22%
	Steep Slopes (21-40%)	3	12%
	Extreme slopes (41% and greater)	4	6%
Structure Hazard	Noncombustible roof and noncombustible siding materials	1	30%
	Noncombustible roof and combustible siding material	3	34%
	Combustible roof and noncombustible siding material	7	11%
	Combustible roof and combustible siding materials	10	25%
Additional Factors	Rough topography that contains several steep canyons or ridges	+2	Average -1.2 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	1.4	x Slope Hazard 1.6	= 2.2
Structural hazard	+	4.4	
Additional factors	(+ or -)	-1.2	
Total Hazard Points	=	5.4	

Table 2.3. Percent of respondents in each risk category as determined by the survey respondents.
00% – Extreme Risk = 26 + points
04% – High Risk = 16–25 points
35% – Moderate Risk = 7–15 points
61% – 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; 83% said that they did. Respondents were also asked if livestock were grazed around their home; 25% indicated there were.

Finally, respondents were asked "If offered in your area, would members of your household attend a free or low cost, half-day training seminar designed to share with homeowners how to reduce the potential for casualty loss surrounding your home?" Approximately 55% 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 power lines and major roads?" Responses are summarized in Table 2.4.

Table 2.4. Public Opinion of Hazard Mitigation Funding Preferences.

	100% Public Funding	Cost-Share (Public & Private)	Privately Funded (Owner or Company)
Home Defensibility Projects →	25%	40%	35%
Community Defensibility Projects →	52%	43%	5%
Infrastructure Projects Roads, Bridges, Power Lines, Etc. →	60%	25%	15%

2.4.3 Public Meetings

Public meetings were scheduled in two communities in Asotin County during the hazard assessment phase of the planning process. Public meetings are intended to share information on the planning process, inform details of the hazard assessments, and discuss potential mitigation treatments. Attendees at the public meetings were asked to give their impressions of the accuracy of the information generated and provide their opinions of potential treatments.

The schedule of public meetings included an afternoon and evening meeting in Asotin and an evening meeting in Anatone. The venues were attended by a number of individuals on the committee and from the general public. The public meeting announcement sent to the local newspapers, local radio stations, fire district representatives, and distributed by committee members is included below in Figure 2.1. The committee also set up a booth at the Asotin County Fair in April. This afforded a great opportunity to interact with the public, provide wildfire education materials, and gather comments on the CWPP planning process.

Figure 2.2. Public Meeting Announcement.

The following slideshow was presented at each of the public meetings by Tera King or William Schlosser of Northwest Management, Inc. In addition, Megan Stewart with the Conservation District or other planning committee representative opened the meeting with a brief introduction.

Table 2.5. Public meeting slide show.

Slide 1

Slide 2

Slide 3

Who is on the committee?

- Asotin County Commissioners
- County Departments
- City Offices
- City and Rural Fire Departments
- Conservation District
- Washington Parks and Rec
- Washington Dept. of Fish and Wildlife
- US Forest Service
- Corp of Engineers
- Forest Industry
- Clearwater Power
- Landowners

Slide 4

Planning Guidelines

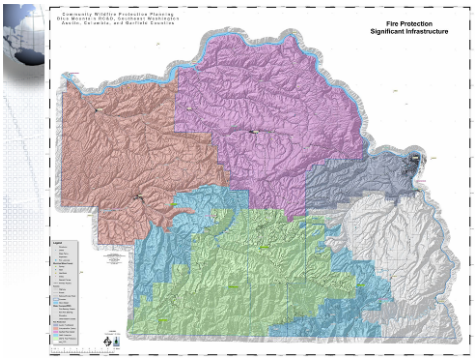
- National Fire Plan (NFP)
- Healthy Forests Restoration Act (HFI)
- Federal Emergency Management Agency (FEMA)

national fire plan nfp

FEMA

HFI HEALTHY FORESTS

Slide 5



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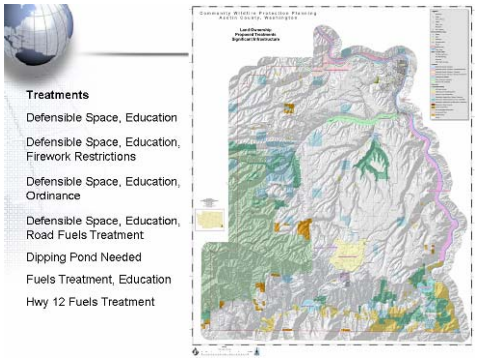


Slide 7

...the Wildland/Urban Interface Fire

Slide 8

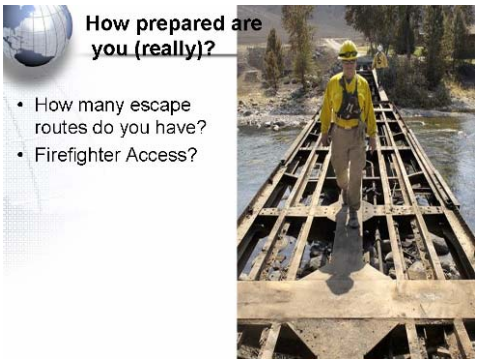
Slide 9

Slide 10

Preparedness

- Emergency Services
- City and Rural Fire Protection
- Wildland Fire Protection
- Local Government
- Local Organizations

Slide 11



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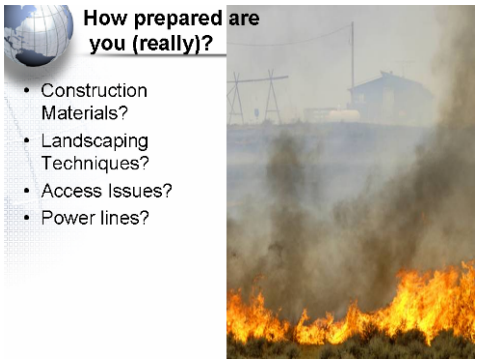

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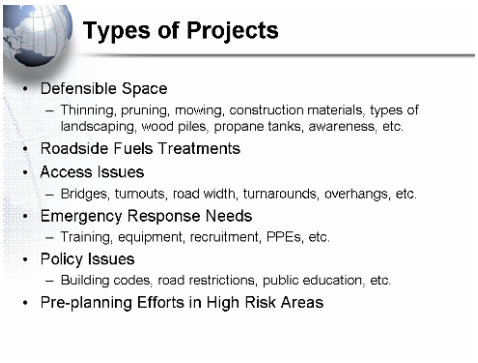

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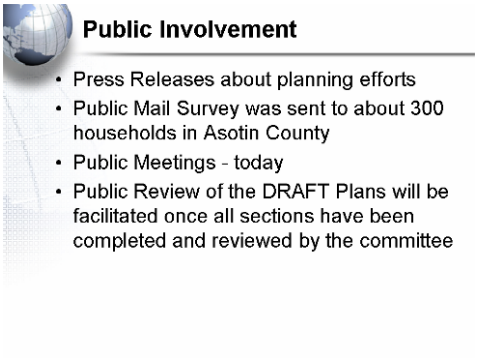

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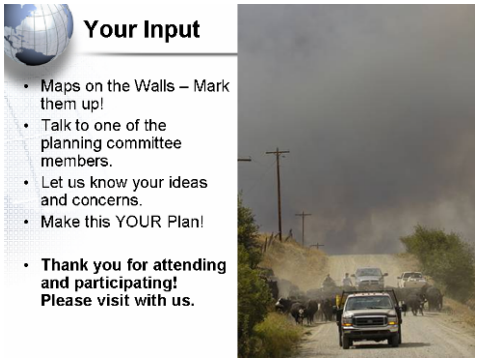

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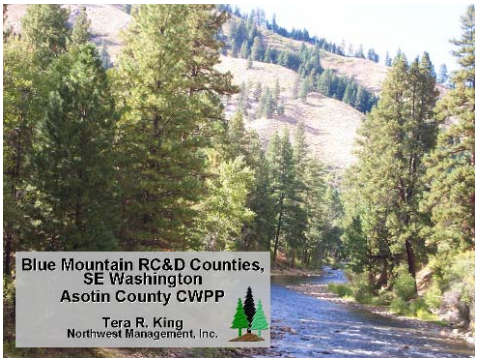


2.4.4 Documented Review Process

Review and comment on these plans has been provided through a number of avenues for the committee members as well as the members of the general public.

During regularly scheduled committee meetings in 2007, the committee met to discuss findings, review mapping and analysis, and provide written comments on draft sections of the document. During the public meetings attendees observed map analyses, photographic collections, discussed general findings from the community assessments, and made recommendations on potential project areas.

The first draft of the document was prepared after the public meetings and presented to the committee on July 11th, 2007 for a full committee review. The draft document was released for public review on October 12, 2007. The public review period remained open until November 9, 2007.

2.4.5 Continued Public Involvement

Asotin County is dedicated to involving the public directly in review and updates of this Community Wildfire Protection Plan. The Asotin County Commissioners, through the Community Wildfire Protection Plan committee, are responsible for the annual review and update of the plan as recommended in the "Administration and Implementation Strategy" section of this document.

The public will have the opportunity to provide feedback about the Plan annually on the anniversary of its adoption at a meeting of the County Commissioners. Copies of the Plan will be kept at the office of the Asotin County Emergency Manager.

A public meeting will also be held as part of each annual evaluation or when deemed necessary by the Community Wildfire Protection Plan committee. The meeting will provide the public a forum for which they can express concerns, opinions, or ideas about the Plan. The County Commissioner's Office will be responsible for using County resources to publicize the annual public meeting and maintain public involvement through the County webpage and newspapers.

Chapter 3

3 Asotin County Characteristics

3.1 Demographics

Asotin County reported an increase in total population from 17,605 in 1990 to 20,551 in 2000 with approximately 9,111 households. Asotin County has two incorporated communities which are Asotin (pop. 1,095) and Clarkston (pop. 7,337) reported from the 2000 Census.

Table 3.1 summarizes some relevant demographic statistics for Asotin County.

Table 3.1. Selected demographic statistics for Asotin County, Washington, from Census 2000.

Subject	Number	Percent
Total population	**20,551**	**100.0**
SEX AND AGE		
Male	9,798	47.7
Female	10,753	52.3
Under 5 years	1,406	6.8
5 to 9 years	1,444	7.0
10 to 14 years	1,428	6.9
15 to 19 years	1,524	7.4
20 to 24 years	1,104	5.4
25 to 34 years	2,328	11.3
35 to 44 years	3,036	14.8
45 to 54 years	2,777	13.5
55 to 59 years	1,163	5.7
60 to 64 years	986	4.8
65 to 74 years	1,652	8.0
75 to 84 years	1,194	5.8
85 years and over	509	2.5
Median age (years)	38.8	(X)
18 years and over	15,310	74.5
Male	7,094	34.5
Female	8,216	40.0
21 years and over	14,507	70.6
62 years and over	3,935	19.1
65 years and over	3,355	16.3
Male	1,343	6.5
Female	2,012	9.8

3.2 Socioeconomics

Asotin County had a total of 8,364 occupied housing units and a population density of 32.3 persons per square mile reported in the 2000 Census. Ethnicity in Asotin County is distributed: white 95.6%, black or African American 0.2%, American Indian or Alaskan Native 1.3%, Asian 0.5%, Hispanic or Latino 2.0%, two or more races 1.8%, and some other race 0.6%.

Specific economic data for individual communities is collected by the US Census; in Asotin County this information is limited to the incorporated cities. City of Asotin households earn a median income of $33,524 annually and Clarkston earns a medium income of $25,907 annually. The Asotin County median income during the same period was $33,524. Table 3.2 shows the dispersal of households in various income categories in Asotin County.

Table 3.2. Income in 1999.	**Asotin County**	
	Number	**Percent**
Households	**8,352**	**100.0**
Less than $10,000	874	10.5
$10,000 to $14,999	667	8.0
$15,000 to $24,999	1,529	18.3
$25,000 to $34,999	1,266	15.2
$35,000 to $49,999	1,503	18.0
$50,000 to $74,999	1,375	16.5
$75,000 to $99,999	602	7.2
$100,000 to $149,999	377	4.5
$150,000 to $199,999	72	0.9
$200,000 or more	87	1.0
Median household income (dollars)	33,524	(X)

(Census 2000)

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, directs federal agencies to identify and address any disproportionately high adverse human health or environmental effects of its projects on minority or low-income populations. In Asotin County, a significant number, 11.6%, of families are at or below the poverty level (Table 3.3).

Table 3.3. Poverty Status in 1999 (below poverty level).	**Asotin County**	
	Number	**Percent**
Families	**657**	**(X)**
Percent below poverty level	(X)	11.6
With related children under 18 years	550	(X)
Percent below poverty level	(X)	19.5
With related children under 5 years	340	(X)
Percent below poverty level	(X)	29.1
Families with female householder, no husband present	**384**	**(X)**
Percent below poverty level	(X)	38.8
With related children under 18 years	368	(X)
Percent below poverty level	(X)	45.5
With related children under 5 years	210	(X)

Table 3.3. Poverty Status in 1999 (below poverty level).	Asotin County	
	Number	Percent
Percent below poverty level	(X)	59.8
Individuals	**3,132**	**(X)**
Percent below poverty level	(X)	15.4
18 years and over	1,940	(X)
Percent below poverty level	(X)	12.8
65 years and over	216	(X)
Percent below poverty level	(X)	6.7
Related children under 18 years	1,155	(X)
Percent below poverty level	(X)	22.7
Related children 5 to 17 years	693	(X)
Percent below poverty level	(X)	18.6
Unrelated individuals 15 years and over	964	(X)
Percent below poverty level	(X)	25.2

(Census 2000)

The unemployment rate was 4.0% in Asotin County in 1999, compared to 4.4% nationally during the same period. Approximately 3.3% of the Asotin County employed population worked in natural resources.

Table 3.4. Employment and Industry.	Asotin County	
	Number	Percent
Employed civilian population 16 years and over	9,211	100.0
OCCUPATION		
Management, professional, and related occupations	2,619	28.4
Service occupations	1,764	19.2
Sales and office occupations	2,280	24.8
Farming, fishing, and forestry occupations	131	1.4
Construction, extraction, and maintenance occupations	975	10.6
Production, transportation, and material moving occupations	1,442	15.7
INDUSTRY		
Agriculture, forestry, fishing and hunting, and mining	300	3.3
Construction	684	7.4
Manufacturing	1,107	12.0
Wholesale trade	287	3.1
Retail trade	1,240	13.5
Transportation and warehousing, and utilities	469	5.1
Information	142	1.5
Finance, insurance, real estate, and rental and leasing	563	6.1
Professional, scientific, management, administrative, and waste management services	546	5.9
Educational, health and social services	2,158	23.4
Arts, entertainment, recreation, accommodation and food services	791	8.6

Table 3.4. Employment and Industry.	Asotin County	
	Number	Percent
Other services (except public administration)	578	6.3
Public administration	346	3.8

(Census 2000)

Approximately 73.6% of Asotin County's employed persons are private wage and salary workers, while around 16% are government workers (Table 3.5).

Table 3.5. Class of Worker.	Asotin County	
	Number	Percent
Private wage and salary workers	6,780	73.6
Government workers	1,486	16.1
Self-employed workers in own not incorporated business	892	9.7
Unpaid family workers	53	0.6

(Census 2000)

3.2.1 Description of Asotin County

Adapted from the Asotin County Comprehensive Plan . . .

Asotin County was organized in 1883 and was once part of Garfield County. It is located in the far southeast corner of the state and borders Oregon on the south and Idaho on the east.

In 1805-1806, Lewis and Clark passed through the County as well as Captain Bonneville in 1834. A ferry was established on the Snake River in 1855 to accommodate thousands of miners rushing to the goldfields. In 1881, a ferry was established in Asotin. Today, the county's economy is primarily agricultural, based on food and livestock raising and processing, fruit growing, and wheat and barley production.

3.2.1.1 Land Use

A relatively large percentage of the County is privately owned. Private parcels are becoming more and more expensive as the population grows and more property is developed. This factor combined with the mountainous nature of the topography in the southern half of the County is expected to produce significantly higher demands on privately held land in the future.

Table 3.6. Ownership Categories in Asotin County.

Land Owner	Acres	Percent
County Government	168	<1%
Forest Industry	4,022	1%
Incorporated Cities	2,039	<1%
Private	288,729	70%
US Army Corps of Engineers	2,673	1%
US Bureau of Land Management	14,417	4%
US Forest Service	54,151	13%
Washington Department of Natural Resources	20,150	5%
Washington State Department of Fish and Wildlife	22,496	5%
Washington State Parks and Recreation Commission	842	<1%
Total	409,685	100%

3.3 Cultural Resources

3.3.1 National Register of Historic Places

The National Park Service maintains the National Register of Historical Places as a repository of information on significant cultural locale. These may be buildings, roads or trails, places where historical events took place, or other noteworthy sites. The NPS has recorded sites in its database. These sites are summarized in Table 3.7.

Table 3.7. National Register of Historic Places in Asotin County, Washington.

Item Number	Resource Name	City	Listed	Architect, builder, or engineer
1	Clarkston Public Library	Clarkston	1982	
2	Cloverland Garage	Cloverland	1986	Howard, Henry
3	Full Gospel Church	Asotin	1972	
4	Grande Ronde River Bridge	Asotin	1995	Hagman, Henry, WA State Hwy Dist.
5	Indian Timothy Memorial Bridge	Pomeroy	1982	WA State DOT
6	Nez Perce Snake River Archeological District	Asotin	1978	
7	Snake River Archeological District	Asotin	1976	
8	US Post Office	Clarkston	1991	McGovern, J.D., Simon, Louis
9	Van Arsdol, C. C. House	Clarkston	1975	

(NRHP 2003)

Fire mitigation activities in and around these sites has the potential to affect historic places. In all cases, the fire mitigation work will be intended to reduce the potential of damaging the site due to wildfire. Areas where ground disturbance will occur will need to be inventoried depending on the location. Ground-disturbing actions may include, but are not limited to, constructed fire lines (hand line, mechanical line, etc.), new roads to creeks to fill water tankers, mechanical treatments, etc. Only those burn acres that may impact cultural resources that are sensitive to burning (i.e., buildings, peeled bark trees, etc.) would be examined. Burns over lithic sites are not expected to have an impact on those sites, as long as the fire is of low intensity and short duration. Some areas with heavy vegetation may need to be examined after the burn to locate and record any cultural resources although this is expected to be minimal. Traditional Cultural Properties (TCPs) will also need to be identified. Potential impact to TCPs will depend on what values make the property important and will be assessed on an individual basis.

3.4 Transportation & Infrastructure

The transportation system within the County is comprised of a significant number of roads, an several airport, and an extensive trail system. The road system is comprised of state and federal highways, Washington Department of Natural Resources (DNR) roads, county roads, US Forest Service roads, and private roads. The transportation network is very important in the wildland urban interface, because they provide a means of escape and access to fight fires and because they may act as barriers to the spread of a fire.

Almost all of the roads in the County were originally built to facilitate farming and logging activities. As such, these roads can generally support the firefighting equipment referenced in this document. However, many of the new roads have been built for home site access, especially for new subdivisions. In most cases, these roads are adequate to facilitate firefighting

equipment as they adhere to County road standards. County road standards and building guidelines for new developments should be strictly enforced to insure this tendency continues.

Transportation networks in the County have been challenged because a number of communities have only one or two access points suitable for use during an emergency. The community of Rogersburg is a prime example. Other communities that may be at risk because of limited access include Grande Ronde, Grahams Landing, and potentially even Asotin.

Primary access routes were identified by committee members and amended by the public during public meetings. These routes identify the primary access into and out of the County that are relied on during emergencies. As such, they often receive prioritized treatment when allocating resources for hazard abatement. There are 70 miles of primary access routes identified in Asotin County.

Asotin County has both significant infrastructure and unique ecosystems within its boundaries. Of note for this Community Wildfire Protection Plan are the existence of US Highway 12, State Route 129, and the presence of high tension power lines.

3.4.1 Communication Sites and Lookouts

Included in the assessment of critical infrastructure is the location of lookouts, repeater towers, and other communication sites. Known items were identified in the County and are summarized in Table 3.8.

Table 3.8. Lookouts, Repeater Towers, and Communication Site Locations.

Name	UTM_X	UTM_Y
USFS Saddle Butte	-117.4611052	46.07040056
USFS Cottonwood	-117.3555444	46.27253046
WA-DNR ST E	-117.3511565	46.27258452
Inland Cellular	-117.0735337	46.18616468
Big Butte	-117.2461759	46.11532065
Asotin Creek Radio Comm	-117.1006103	46.34267069
Puffer Butte	-117.1736502	46.07522637
Stout Ridge Repeater	-117.1583816	46.43464102
Asotin Grade Radio Tower	-117.0405279	46.31790164

3.5 Vegetation & Climate

Vegetation in Asotin County is a mix of forestland and agricultural ecosystems. An evaluation of satellite imagery of the region provides some insight to the composition of the vegetation of the area. The full extent of the County was evaluated for cover type by the USDA Forest Service in 2001 as determined from Landsat 7 ETM+ imagery in tabular format.

The most represented vegetated cover type is grassland at 46% (Table 3.9).

Table 3.9. Vegetative Cover Types in Asotin County.

Cover	Acres	Percent
Barren Land (Rock/Sand/Clay)	68	0%
Cultivated Crops	64,520	16%
Deciduous Forest	215	0%
Developed, High Intensity	73	0%
Developed, Low Intensity	3,044	1%

Table 3.9. Vegetative Cover Types in Asotin County.

Cover	Acres	Percent
Developed, Medium Intensity	874	0%
Developed, Open Space	8,396	2%
Emergent Herbaceous Wetlands	110	0%
Evergreen Forest	69,793	17%
Grassland/Herbaceous	188,584	46%
Mixed Forest	40	0%
Open Water	3,443	1%
Pasture/Hay	491	0%
Shrub/Scrub	69,825	17%
Woody Wetlands	207	0%
Total	409,684	

Vegetative communities within the County follow the strong moisture and temperature gradient related to the major drainages. As moisture availability increases, so does the abundance of conifer species, with subalpine forest communities present in the highest elevations where precipitation and elevation provide more moisture during the growing season.

3.5.1 Monthly Climate Summaries in Asotin County

3.5.1.1 Asotin, Washington

Period of Record Monthly Climate Summary

Period of Record : 7/ 1/1976 to 12/31/2005

Table 3.10. Monthly climate records for Asotin, Asotin County, Washington.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)					Insuff	icient	Data						
Average Min. Temperature (F)					Insuff	icient	Data						
Average Total Precipitation (in.)	0.91	0.90	1.33	1.89	2.33	1.89	1.16	1.06	0.90	0.96	1.31	1.01	15.63
Average Total SnowFall (in.)	4.6	3.1	1.4	0.5	0.0	0.0	0.0	0.0	0.0	0.3	2.0	2.4	14.1
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record. Max. Temp.: 0% Min. Temp.: 0% Precipitation: 98.4% Snowfall: 94.5% Snow Depth: 88.5%

3.5.1.2 Anatone, Washington

Period of Record Monthly Climate Summary

Period of Record: 6/ 1/1948 to 11/30/1981

Table 3.11. Monthly climate records for Anatone, Asotin County, Washington.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual

Table 3.11. Monthly climate records for Anatone, Asotin County, Washington.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	32.0	39.2	43.9	52.3	60.9	68.8	79.1	78.9	70.2	57.9	43.2	35.5	55.2
Average Min. Temperature (F)	18.1	24.0	26.4	31.5	38.1	44.2	48.4	48.1	41.3	34.5	27.5	22.4	33.7
Average Total Precipitation (in.)	2.24	1.64	1.88	1.73	2.21	1.94	0.84	1.02	1.02	1.57	2.17	2.16	20.41
Average Total SnowFall (in.)	18.4	11.7	9.1	1.3	0.6	0.0	0.0	0.0	0.0	0.5	8.0	16.2	65.9
Average Snow Depth (in.)	8	7	2	0	0	0	0	0	0	0	1	4	2

Percent of possible observations for period of record. Max. Temp.: 92.6% Min. Temp.: 92.4% Precipitation: 94.9% Snowfall: 91.3% Snow Depth: 88.3%

3.6 Ecosystems

Recent forest health assessments of dry ponderosa pine forests in the interior West indicate that fire and insect disturbance regimes and concomitant changes in stand and landscape characteristics have been significantly altered. These altered forest are increasingly susceptible to catastrophic fire events such as the 1988 55,000 acre Dinkleman Burn (Washington), the 1994 250,000 acre Foothill Burn (Idaho), and the 1994 140,000 acre Tyee Burn (Washington). These burns are characterized as catastrophic because they are outside the range of variability in burn intensity and extent of historical burns that occurred on these sites before Euro-settlement. Severe burns have the potential to adversely impact biological capacity and biological integrity of affected watersheds (Everett et al 1996).

Asotin County is a diverse ecosystem with a complex array of vegetation, wildlife, and fisheries that have developed with, and adapted to fire as a natural disturbance process. A century of wildland fire suppression coupled with past land-use practices (primarily timber harvesting, agriculture, and grazing) has altered plant community succession and has resulted in dramatic shifts in the fire regimes and species composition. As a result, forests and rangelands in Asotin County have become more susceptible to large-scale, high intensity fires posing a threat to life, property, and natural resources including wildlife and special status plant populations and habitats. High-intensity, stand-replacing fires have the potential to seriously damage soils and native vegetation. In addition, an increase in the number of large high intensity fires throughout the nation's forest and rangelands, has resulted in significant safety risks to firefighters and higher costs for fire suppression (House of Representatives, Committee on Agriculture, Washington, DC, 1997).

3.7 Hydrology

The Washington Department of Ecology & Water Resources Program is charged with the development of the Washington State Water Plan. Included in the State Water Plan are the statewide water policy plan, and component basin and water body plans which cover specific geographic areas of the state (WDOE 2005). The Washington Department of Ecology has prepared General Lithologies of the Major Ground Water Flow Systems in Washington.

The state may assign or designate beneficial uses for particular Washington water bodies to support. These beneficial uses are identified in section WAC 173-201A-200 of the Washington Surface Water Quality Standards (WQS). These uses include:

- **Aquatic Life Uses:** char; salmonid and trout spawning, rearing, and migration; nonanadromous interior redband trout, and indigenous warm water species
- **Recreational Uses:** primary (swimming) and secondary (boating) contact recreation
- **Water Supply Uses:** domestic, agricultural, and industrial; and stock watering

While there may be competing beneficial uses in streams, federal law requires protection of the most sensitive of these beneficial uses.

The geology and soils of this region lead to rapid to moderate moisture infiltration. Slopes are moderate to steep, however, headwater characteristics of the watersheds lead to a high degree of infiltration as opposed to a propensity for overland flow. Thus sediment delivery efficiency of first and third order streams is fairly low. The bedrock is typically well fractured and moderately soft. This fracturing allows excessive soil moisture to infiltrate into the rock and thus surface runoff is rare. Natural mass stability hazards associated with slides are low. Natural sediment yields are low for these watersheds. However, disrupted vegetation patterns from logging (soil compaction), farming, road construction, and wildland fire (especially hot fires that increase soil hydrophobic characteristics), can lead to increased surface runoff and debris flow to stream channels.

A correlation to mass wasting due to the removal of vegetation caused by high intensity wildland fire has been documented. Burned vegetation can result in changes in soil moisture and loss of rooting strength that can result in slope instability, especially on slopes greater than 30%. The greatest watershed impacts from increased sediment will be in the lower gradient, depositional stream reaches. Of critical importance to Asotin County will be the maintenance of the domestic watershed supplies in the Middle Snake River Watershed (Watershed Resources Inventory Area 35).

Timberlands in the region have been extensively harvested for the past several decades, therefore altering riparian function by removing streamside shade and changing historic sediment deposition. Riparian function and channel characteristics have been altered by ranch and residential areas as well. The current conditions of wetlands and floodplains are variable. Some wetlands and floodplains have been impacted by past management activities.

Table 3.12 lists the Washington Water Resources database of municipal water supplies in Asotin County and the Recorded Water Certificates and Permits in Asotin County. These water sources may be placed at risk in the event of a wildland fire.

Table 3.12. Municipal Water Sources in Asotin County.

System Name	System Type	Source Name
ASOTIN COUNTY ROAD DEPT SHOP	Group B	WELL 1
ASOTIN WATER DEPT	Community	Well #1
ASOTIN WATER DEPT	Community	Well #2
BEAMERS LANDING INC	Transient Non-Community	Well #1
BLUE MOUNTAIN HOMESITES	Transient Non-Community	Well #1
BLUE MOUNTAIN HOMESITES	Transient Non-Community	Well #2
BUBBA S COUNTRY STORE & GRILL	Group B	WELL 1
CHIEF TIMOTHY PARK	Transient Non-Community	Well #1- ABR771
CLOVERLAND FREE METHODIST CHURCH	Group B	WELL 1
COUNTRY LIVING COURT	Group B	WELL 1
DALOSTO WATER SYSTEM	Group B	Well #1
FIELD SPRINGS STATE PARK	Transient Non-Community	Well #1

Table 3.12. Municipal Water Sources in Asotin County.

System Name	System Type	Source Name
FIELD SPRINGS STATE PARK	Transient Non-Community	Spring
GRAND RONDE RANCHES #1	Transient Non-Community	Well #1
JIMS EXPRESS MART	Transient Non-Community	Well #1
PUD #1 OF ASOTIN COUNTY	Community	Well #2
PUD #1 OF ASOTIN COUNTY	Community	Well #6
PUD #1 OF ASOTIN COUNTY	Community	Well #7
PUD #1 OF ASOTIN COUNTY	Community	Well #4 (standby)
PUD #1 OF ASOTIN COUNTY	Community	Well #5
PUD #1 OF ASOTIN COUNTY	Community	Well #3
PUD #1 OF ASOTIN COUNTY	Community	Well #1
ROGERSBURG ADDITION	Group B	WELL 1
WALKER, L.	Group B	Well 01

3.8 Air Quality

The primary means by which the protection and enhancement of air quality is accomplished is through implementation of National Ambient Air Quality Standards (NAAQS). These standards address six pollutants known to harm human health including ozone, carbon monoxide, particulate matter, sulfur dioxide, lead, and nitrogen oxides (USDA Forest Service 2000).

The Clean Air Act, passed in 1963 and amended in 1977, is the primary legal authority governing air resource management. The Clean Air Act provides the principal framework for national, state, and local efforts to protect air quality. Under the Clean Air Act, OAQPS (Organization for Air Quality Protection Standards) is responsible for setting standards, also known as national ambient air quality standards (NAAQS), for pollutants which are considered harmful to people and the environment. OAQPS is also responsible for ensuring these air quality standards are met, or attained (in cooperation with state, Tribal, and local governments) through national standards and strategies to control pollutant emissions from automobiles, factories, and other sources (Louks 2001).

Smoke emissions from fires potentially affect an area and the airsheds that surround it. Climatic conditions affecting air quality in southeastern Washington are governed by a combination of factors. Large-scale influences include latitude, altitude, prevailing hemispheric wind patterns, and mountain barriers. At a smaller scale, topography and vegetation cover also affect air movement patterns. Air quality in the area is generally moderate to good. However, locally adverse conditions can result from occasional wildland fires in the summer and fall, and prescribed fire and agricultural burning in the spring and fall. All major river drainages are subject to temperature inversions which trap smoke and affect dispersion, causing local air quality problems. This occurs most often during the summer and fall months and would potentially affect all communities in Asotin County, but particularly Clarkston, Asotin, Grahams Landing, and Rogersburg.

3.8.1 Washington State Smoke Management Plan

The Department of Natural Resources (DNR), Department of Ecology (DOE), U.S. Forest Service (USFS), National Park Service (NPS), Bureau of Land Management (BLM), participating Indian nations, military installations (DOD), and small and large forest landowners have worked together to deal with the effect of outdoor burning on air.

Protection of public health and preservation of the natural attractions of the state are high priorities and can be accomplished along with a limited, but necessary, outdoor burning program. Public health, public safety, and forest health can all be served through the application of the provisions of Washington State law and this plan, and with the willingness of those who do outdoor burning on forest lands to further reduce the negative effects of their burning.

The Washington State Smoke Management Plan pertains to DNR-regulated silvicultural outdoor burning only and does not include agricultural outdoor burning or outdoor burning that occurs on improved property. Although the portion of total outdoor burning covered by this plan is less than 10 percent of the total air pollution in Washington, it remains a significant and visible source.

Background

Washington State has had a Smoke Management Plan in effect since 1969. After the enactment of the original plan, and with the addition of the 1975 plan, the number of smoke intrusions into designated population areas has dropped significantly every year.

The 1975 Smoke Management Plan has undergone several informal and semi-formal modifications since its adoption, mainly by agreement with the plan's signatories and other agencies. These modifications represent significant changes in DNR operating procedures and emphases.

The earlier Smoke Management Plans of 1969 and 1975 have done their job well. Today the Pacific Northwest is regarded as a leader in controlling smoke from outdoor burning on forest lands; many other states have used past plans as models in setting up their own smoke management programs.

Purpose

The purpose of the Washington State Smoke Management Plan is to coordinate and facilitate the statewide regulation of prescribed outdoor burning on lands protected by the DNR and on unimproved, federally-managed forest lands and participating tribal lands. The plan is designed to meet the requirements of the Washington Clean Air Act.

Goals

- Protect human health and safety from the effects of outdoor burning
- Facilitate the enjoyment of the natural attractions of the state
- Provide a limited burning program for the people of this state
- Provide the opportunity for essential forest land burning while minimizing emissions
- Reduce emissions from silvicultural burning other than for forest health reasons first by 20 percent and later by 50 percent, as required by law
- Foster and encourage the development of alternative methods for disposing, of or reducing the amount of, organic refuse on forest lands
- Acknowledge the role of fire in forest ecosystems and allow the use of fire under controlled conditions to maintain healthy forests.

Scope

The plan provides regulatory direction, operating procedures, and advisory information regarding the management of smoke and fuels on the forest lands of Washington State. It applies to all persons, landowners, companies, state and federal land management agencies,

and others who do outdoor burning in Washington State on lands where the DNR provides fire protection, or where such burning occurs on federally-managed, unimproved forest lands and tribal lands of participating Indian nations in the state.

The plan does not apply to agricultural outdoor burning and open burning as defined by Washington Administrative Code (WAC) 173-425-030 (1) and (2), nor to burning done "by rule" under WAC 332-24 or on non-forested wildlands (e.g., range lands). All future reference to burning in this plan will refer only to silvicultural burning unless otherwise indicated.

The plan does not address nor attempt to regulate prescribed natural fire in wilderness areas and national parks for several reasons: the amount of emissions caused by such burning in Washington is relatively small, it is impossible to "regulate" unforecastable natural ignitions, and it is nearly impossible to gather emission data efficiently in the areas where this type of burning generally takes place. Federal agencies that have adopted the use of prescribed natural fires will remain solely responsible for the administration of such programs.

Participation

Those who receive fire protection from the DNR, or from agencies contracted by the DNR, must abide by the requirements of this plan. This includes all burning done on private and state-managed lands that pay, or are subject to paying, Forest Protection Assessment.

Federal agencies that do outdoor burning on forest lands must participate in and abide by the requirements of this plan under the direction of the federal Clean Air Act. These agencies include, but are not limited to, the Forest Service (USFS), Park Service (NPS), Fish and Wildlife Service (F&WS), Bureau of Land Management (BLM), and Department of Defense (DOD).

Indian nations may choose to participate in all or portions of the plan. Participation would be by written agreement between the Indian nation and the DNR. Advantages of participation by Indian nations would include statewide coordination of burning, shared weather forecasting services, uniform data reporting and storage, better protection of the public through a unified burn approval system, satisfaction of federal EPA requirements, and other services provided by either party to the other. Such future agreements would become appendices to this plan.

Chapter 4

4 Risk and Preparedness Assessments

4.1 Wildland Fire Characteristics

An informed discussion of fire mitigation is not complete until basic concepts that govern fire behavior are understood. In the broadest sense, wildland fire behavior describes how fires burn; the manner in which fuels ignite, how flames develop and how fire spreads across the landscape. The three major physical components that determine fire behavior are the fuels supporting the fire, topography in which the fire is burning, and the weather and atmospheric conditions during a fire event. At the landscape level, both topography and weather are beyond our control. We are powerless to control winds, temperature, relative humidity, atmospheric instability, slope, aspect, elevation, and landforms. It is beyond our control to alter these conditions, and thus impossible to alter fire behavior through their manipulation. When we attempt to alter how fires burn, we are left with manipulating the third component of the fire environment; fuels which support the fire. By altering fuel loading and fuel continuity across the landscape, we have the best opportunity to determine how fires burn.

A brief description of each of the fire environment elements follows in order to illustrate their effect on fire behavior.

4.1.1 Weather

Weather conditions contribute significantly to determining fire behavior. Wind, moisture, temperature, and relative humidity ultimately determine the rates at which fuels dry and vegetation cures, and whether fuel conditions become dry enough to sustain an ignition. Once conditions are capable of sustaining a fire, atmospheric stability and wind speed and direction can have a significant affect on fire behavior. Winds fan fires with oxygen, increasing the rate at which fire spreads across the landscape. Weather is the most unpredictable component governing fire behavior, constantly changing in time and across the landscape.

4.1.2 Topography

Fires burning in similar fuel conditions burn dramatically different under different topographic conditions. Topography alters heat transfer and localized weather conditions, which in turn influence vegetative growth and resulting fuels. Changes in slope and aspect can have significant influences on how fires burn. Generally speaking, north slopes tend to be cooler, wetter, more productive sites. This can lead to heavy fuel accumulations, with high fuel moistures, later curing of fuels, and lower rates of spread. In contrast, south and west slopes tend to receive more direct sun, and thus have the highest temperatures, lowest soil and fuel moistures, and lightest fuels. The combination of light fuels and dry sites lead to fires that typically display the highest rates of spread. These slopes also tend to be on the windward side of mountains. Thus these slopes tend to be “available to burn” a greater portion of the year.

Slope also plays a significant roll in fire spread, by allowing preheating of fuels upslope of the burning fire. As slope increases, rate of spread and flame lengths tend to increase. Therefore, we can expect the fastest rates of spread on steep, warm south and west slopes with fuels that are exposed to the wind.

4.1.3 Fuels

Fuel is any material that can ignite and burn. Fuels describe any organic material, dead or alive, found in the fire environment. Grasses, brush, branches, logs, logging slash, forest floor litter, conifer needles, and buildings are all examples. The physical properties and characteristics of fuels govern how fires burn. Fuel loading, size and shape, moisture content and continuity and arrangement all have an affect on fire behavior. Generally speaking, the smaller and finer the fuels, the faster the potential rate of fire spread. Small fuels such as grass, needle litter and other fuels less than a quarter inch in diameter are most responsible for fire spread. In fact, "fine" fuels, with high surface to volume ratios, are considered the primary carriers of surface fire. This is apparent to anyone who has ever witnessed the speed at which grass fires burn. As fuel size increases, the rate of spread tends to decrease, as surface to volume ratio decreases. Fires in large fuels generally burn at a slower rate, but release much more energy, burn with much greater intensity. This increased energy release, or intensity, makes these fires more difficult to control. Thus, it is much easier to control a fire burning in grass than to control a fire burning in timber.

When burning under a forest canopy, the increased intensities can lead to torching (single trees becoming completely involved) and potentially development of crown fire (fire carried from tree crown to tree crown). That is, they release much more energy. Fuels are found in combinations of types, amounts, sizes, shapes, and arrangements. It is the unique combination of these factors, along with the topography and weather, which determine how fires will burn.

The study of fire behavior recognizes the dramatic and often-unexpected affect small changes in any single component has on how fires burn. It is impossible to speak in specific terms when predicting how a fire will burn under any given set of conditions. However, through countless observations and repeated research, some of the principles that govern fire behavior have been identified and are recognized.

4.2 Wildfire Hazards

The severity of a fire season can usually be determined in the spring by how much precipitation is received, which in turn, determines how much fine fuel growth there is and how long it takes this growth to cure out. These factors, combined with annual wind events in late summer, drastically increase the chance a fire start will grow rapidly and resist suppression activities. Furthermore, grain harvest is also occurring at this time. Occasionally, harvesting equipment causes an ignition that can spread into populated areas and timberlands.

4.2.1 Wildfire Ignition Profile

Fire was once an integral function of the majority of ecosystems in southeastern Washington. The seasonal cycling of fire across the landscape was as regular as the July, August and September lightning storms plying across the canyons and mountains. Depending on the plant community composition, structural configuration, and buildup of plant biomass, fire resulted from ignitions with varying intensities and extent across the landscape. Shorter return intervals between fire events often resulted in less dramatic changes in plant composition (Johnson 1998). The fires burned from 1 to 47 years apart, with most at 5- to 20-year intervals (Barrett 1979). With infrequent return intervals, plant communities tended to burn more severely and be replaced by vegetation different in composition, structure, and age (Johnson *et al.* 1994). Native plant communities in this region developed under the influence of fire, and adaptations to fire are evident at the species, community, and ecosystem levels. Fire history data (from fire scars and charcoal deposits) suggest fire has played an important role in shaping the vegetation in the Columbia Basin for thousands of years (Steele *et al.* 1986, Agee 1993).

Detailed records of fire ignitions and extents have been compiled by the larger land management agencies in Asotin County including the Washington Department of Natural Resources and United States Forest Service. Using this data on past fire extents and fire ignition data, the occurrence of wildland fires in the region of Asotin County has been evaluated.

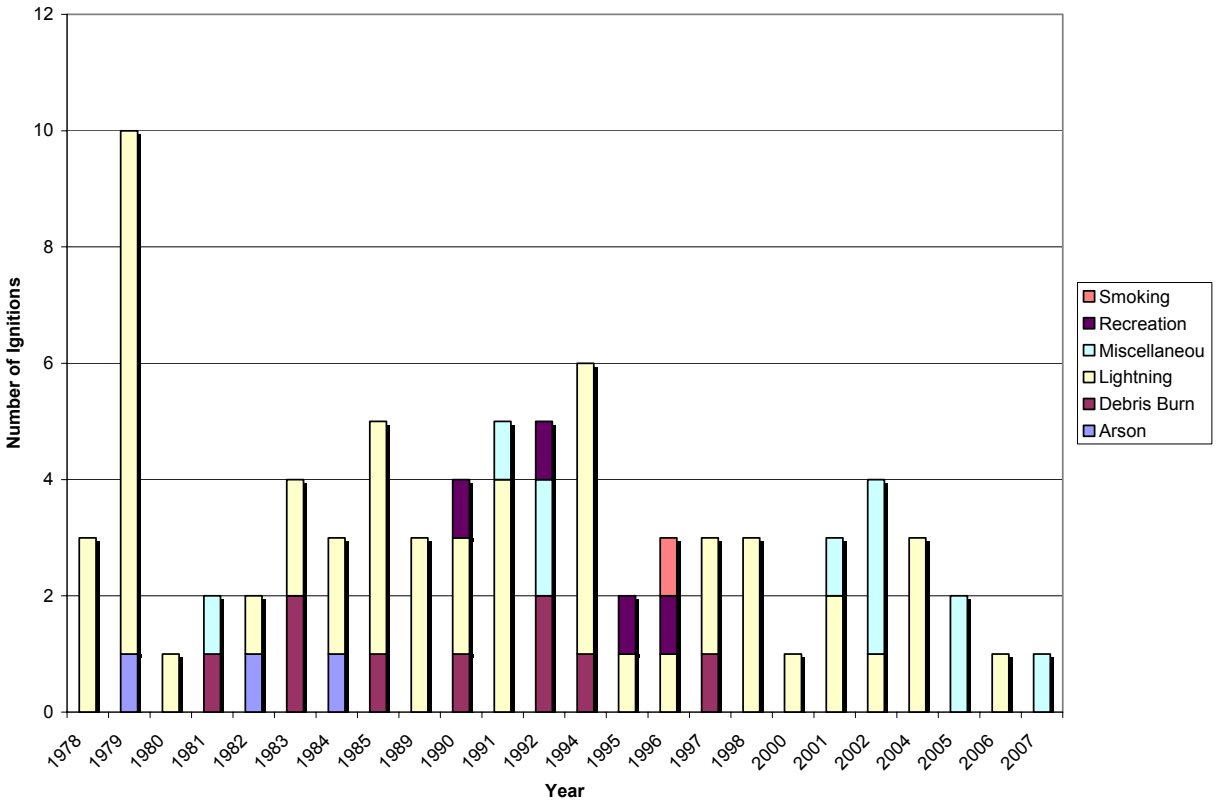
4.2.1.1 Washington Department of Natural Resources

The Washington Department of Natural Resources database of wildfire ignitions includes ignition and extent data from 1978 through 2007 for wildfires responded to by the DNR. An analysis of the DNR reported wildfire ignitions in Asotin County reveals that during this period approximately 5,046 acres burned as a result of 79 wildfire ignitions. Lightning was resulted in the most number of ignitions as well as the highest number of acres burned (Table 4.1).

Table 4.1. Summary of ignitions from Washington DNR database.

Cause	Acres Burned	Percent	Number of Ignitions	Percent
Arson	61	1%	3	4%
Debris Burning	983	19%	9	11%
Lightning	3,768	75%	51	51%
Miscellaneous	129	3%	11	11%
Recreation	105	2%	4	4%
Smoking	0	0%	1	1%
Total	**5,046**	**100%**	**79**	**100%**

Figure 4.1. Wildfire Ignitions recorded by Washington DNR 1978-2007.



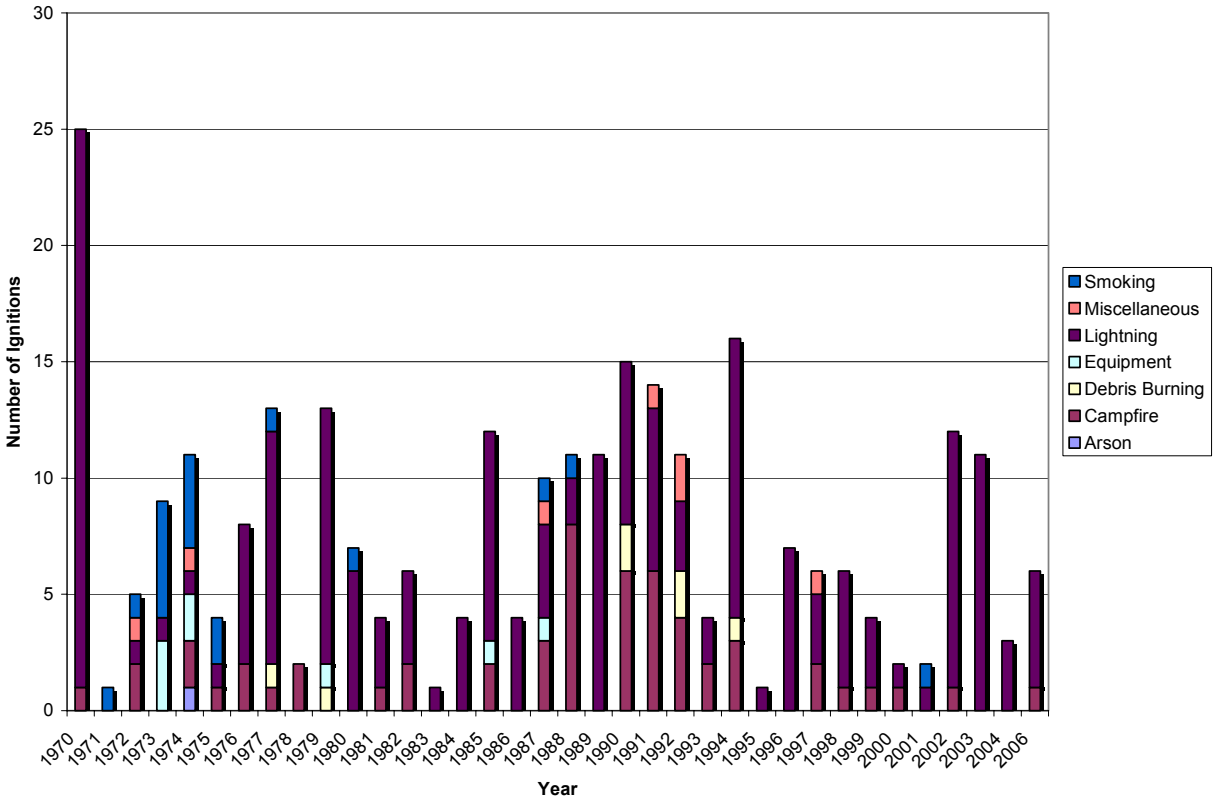
4.2.1.2 U.S. Forest Service

The U.S. Forest Service has maintained an extensive wildfire database for the period of 1970 – 2006 for fires responded to by the Forest Service. According to this database, lightning caused the most ignitions and resulted in the largest number of acres burned.

Table 4.2. Summary of ignitions from U.S. Forest Service database.

Cause	Acres Burned	Percent	Number of Ignitions	Percent
Arson	0	0%	1	0%
Campfire	33	1%	55	20%
Debris Burning	573	11%	7	2%
Equipment	146	3%	8	3%
Lightning	2,773	52%	185	66%
Miscellaneous	1,811	34%	7	2%
Smoking	7	0%	18	6%
Total	**5,344**	**100%**	**281**	**100%**

Figure 4.2. Wildfire Ignitions recorded by U.S. Forest Service 1970 to 2006.



Both databases show that the highest fire risk for both number of ignitions and acres burned is lightning by a significant majority. Debris burning and campfires also result in numerous ignitions and acres burned each year. This data demonstrates that the aggressive initial attack policy employed by both wildfire agencies and local fire agencies keeps most fires from growing over one acre in size. Since most of the wildfires in Asotin County are naturally caused, which

cannot be controlled, a proactive approach to home defensibility and active forest and rangeland fuels management could significantly reduce the number of acres burned and homes and lives threatened.

4.2.2 Wildfire Extent Profile

Across the west, wildfires have been increasing in extent and cost of control. The National Interagency Fire Center (2007) reported over 96,000 wildfires in 2006 which burned a total of 9.9 million acres and cost over $900 million in containment (Table 4.3). Data summaries for 2000 through 2006 are provided and demonstrate the variability of the frequency and extent of wildfires nationally (Table 4.3).

Table 4.3. National Fire Season Summaries.

Statistical Highlights	2000	2001	2002	2003	2004	2005	2006
Number of Fires	122,827	84,079	88,458	85,943	65,461	66,753	96,385
10-year Average ending with indicated year	106,400	105,227	103,519	102,287	96,888	89,859	87,788
Acres Burned	**8,422,237**	**3,555,138**	**6,937,584**	**4,918,088**	**8,097,880**	**8,689,389**	**9,873,745**
10-year Average ending with indicated year	4,083,347	4,288,417	4,786,186	5,075,927	5,450,801	6,158,985	6,511,469
Structures Burned	861	731	2,381	5,781	1,095	--	--
Estimated Cost of Fire Suppression (Federal agencies only)	$1.4 billion	$917 million	$ 1.7 billion	$1.3 billion	$890 million	$875.7 million	--

The National Interagency Fire Center, located in Boise, Idaho, maintains records of fire costs, extent, and related data for the entire nation. Tables 4.4 and 4.5 summarize some of the relevant wildland fire data for the nation, and some trends that are likely to continue into the future unless targeted fire mitigation efforts are implemented and maintained.

These statistics are based on end-of-year reports compiled by all wildland fire agencies after each fire season, and are updated by March of each year. The agencies include: Bureau of Land Management, Bureau of Indian Affairs, National Park Service, US Fish and Wildlife Service, USDA Forest Service and all State Lands.

Table 4.4. Total Fires and Acres 1960 - 2006 Nationally.

Year	Fires	Acres	Year	Fires	Acres
2006	96,385	9,873,745	1983	161,649	5,080,553
2005	66,753	8,689,389	1982	174,755	2,382,036
2004	65,461	*8,097,880	1981	249,370	4,814,206
2003	85,943	4,918,088	1980	234,892	5,260,825
2002	88,458	6,937,584	1979	163,196	2,986,826
2001	84,079	3,555,138	1978	218,842	3,910,913
2000	122,827	8,422,237	1977	173,998	3,152,644
1999	93,702	5,661,976	1976	241,699	5,109,926
1998	81,043	2,329,709	1975	134,872	1,791,327
1997	89,517	3,672,616	1974	145,868	2,879,095
1996	115,025	6,701,390	1973	117,957	1,915,273

Table 4.4. Total Fires and Acres 1960 - 2006 Nationally.

Year	Fires	Acres	Year	Fires	Acres
1995	130,019	2,315,730	1972	124,554	2,641,166
1994	114,049	4,724,014	1971	108,398	4,278,472
1993	97,031	2,310,420	1970	121,736	3,278,565
1992	103,830	2,457,665	1969	113,351	6,689,081
1991	116,953	2,237,714	1968	125,371	4,231,996
1990	122,763	5,452,874	1967	125,025	4,658,586
1989	121,714	3,261,732	1966	122,500	4,574,389
1988	154,573	7,398,889	1965	113,684	2,652,112
1987	143,877	4,152,575	1964	116,358	4,197,309
1986	139,980	3,308,133	1963	164,183	7,120,768
1985	133,840	4,434,748	1962	115,345	4,078,894
1984	118,636	2,266,134	1961	98,517	3,036,219
			1960	103,387	4,478,188

** 2004 fires and acres do not include state lands for North Carolina*

(National Interagency Fire Center 2007)

Table 4.5. Suppression Costs for Federal Agencies Nationally.

Year	Bureau of Land Management	Bureau of Indian Affairs	Fish and Wildlife Service	National Park Service	USDA Forest Service	Totals
2006	N/A	N/A	N/A	N/A	$1,501,000,000	**N/A**
2005	$161,403,000	$58,134,000	$10,330,000	$31,846,000	$690,000,000	**$875,713,000**
2004	$ 147,165,000	$ 63,452,000	$ 7,979,000	$ 34,052,000	$ 637,585,000	**$890,233,000**
2003	$151,894,000	$ 96,633,000	$ 9,554,000	$ 44,557,000	$ 1,023,500,000	**$1,326,138,000**
2002	$ 204,666,000	$ 109,035,000	$ 15,245,000	$ 66,094,000	$ 1,266,274,000	**$1,661,314,000**
2001	$ 192,115,00	$ 63,200,000	$ 7,160,000	$ 48,092,000	$ 607,233,000	**$917,800,000**
2000	$180,567,000	$ 93,042,000	$ 9,417,000	$ 53,341,000	$ 1,026,000,000	**$1,362,367,000**
1999	$ 85,724,000	$ 42,183,000	$ 4,500,000	$ 30,061,000	$ 361,000,000	**$523,468,000**
1998	$ 63,177,000	$ 27,366,000	$ 3,800,000	$ 19,183,000	$ 215,000,000	**$328,526,000**
1997	$ 62,470,000	$ 30,916,000	$ 2,000	$ 6,844,000	$ 155,768,000	**$256,000,000**
1996	$ 96,854,000	$ 40,779,000	$ 2,600	$ 19,832,000	$ 521,700,000	**$679,167,600**
1995	$ 56,600,000	$ 36,219,000	$ 1,675,000	$ 21,256,000	$ 224,300,000	**$340,050,000**
1994	$ 98,417,000	$ 49,202,000	$ 3,281,000	$ 16,362,000	$ 678,000,000	**$845,262,000**

(National Interagency Fire Center 2007)

The largest wildfire recorded by both the U.S. Forest Service and the Washington DNR in Asotin County occurred in 1994 and burned over 2,500 acres. Due to recent large fires in adjacent counties as well as the 2007 Rockpile Fire (50,000 acres) and several other smaller fires Asotin County in 2007, local firefighting agencies and residents believe that they are at very high risk to a large wildfire occurrence. Active fuels management programs coupled with public awareness campaigns are a high priority for lessening this risk.

Figure 4.3. Acres burned as recorded by the Washington DNR 1978-2007.

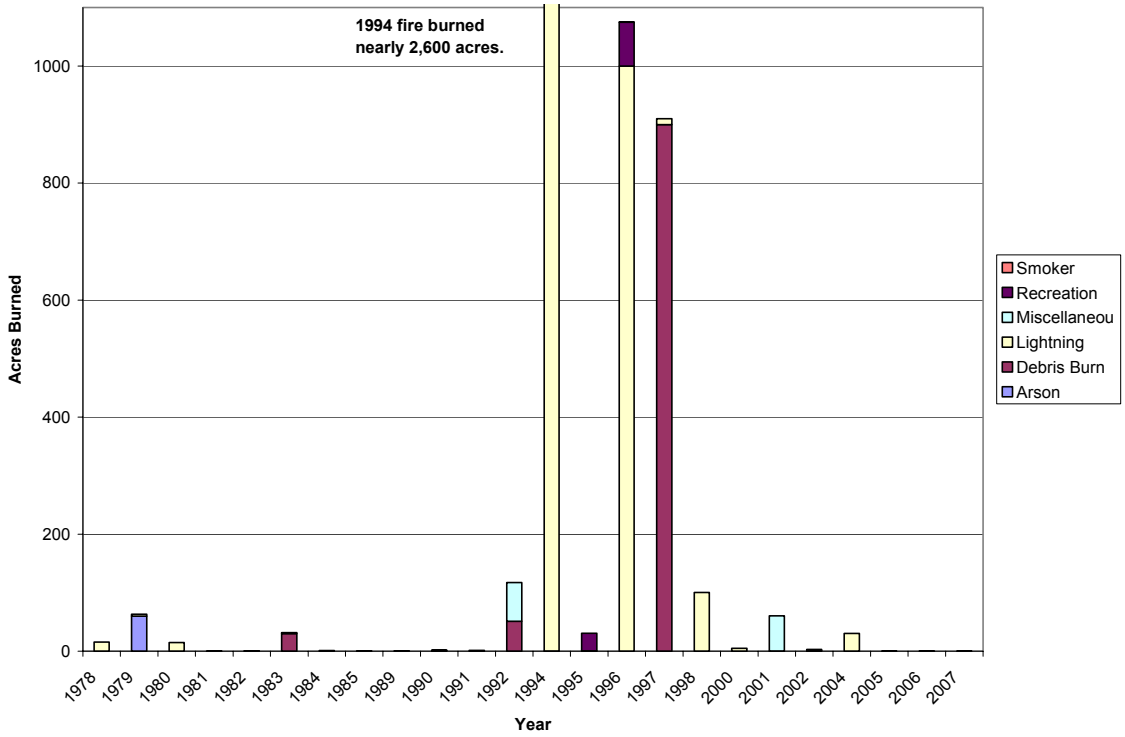
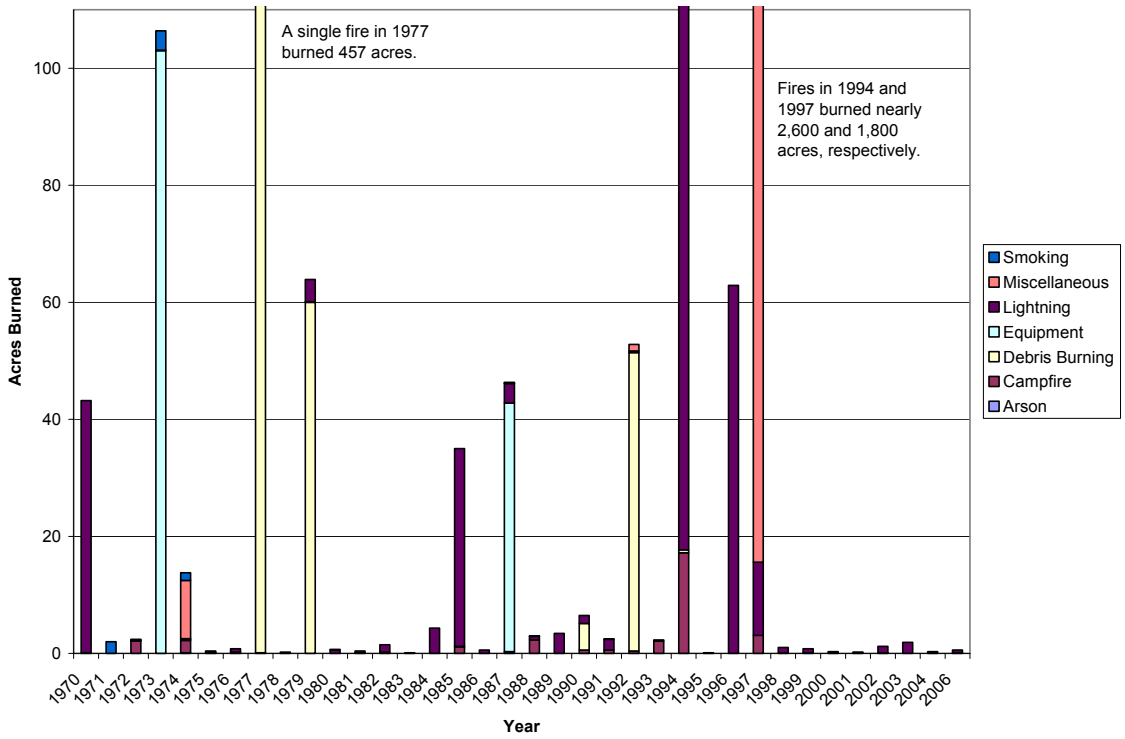


Figure 4.4. Acres Burned as recorded by U.S. Forest Service 1978-2006.



4.3 Wildfire Hazard Assessment

Asotin County and the adjacent counties of Garfield County and Columbia County were analyzed using a variety of techniques, managed on a GIS system (ArcGIS 9.1). Physical features of this region were represented by data layers including roads, streams, soils, elevation, and remotely sensed images. Field visits were conducted by specialists from Northwest Management, Inc., and others. Discussions with area residents and fire control specialists augmented field visits and provided insights to forest health issues and treatment options.

This information was analyzed and combined to develop an assessment of wildland fire risk in the region.

4.3.1 Fire Prone Landscapes

Schlosser *et al.* 2002, developed a methodology to assess the location of fire prone landscapes on forested and non-forested ecosystems in the western US. Northwest Management, Inc. has completed similar assessments on over 40 counties and Indian Reservations in Idaho, Montana, Nevada, Wyoming, Oregon, and Washington to determine fire prone landscape characteristics.

The goal of developing the Fire Prone Landscapes analysis is to make inferences about the relative risk factors across large geographical regions (multiple counties) for wildfire spread. This analysis uses the extent and occurrence of past fires as an indicator of characteristics for a specific area and their propensity to burn in the future. Concisely, if a certain combination of vegetation cover type, canopy closure, aspect, slope, stream and road density have burned with a high occurrence and frequently in the past, then it is reasonable to extrapolate that they will have the same tendency in the future, unless mitigation activities are conducted to reduce this potential.

The analysis for determining those landscapes prone to wildfire utilized a variety of sources.

Digital Elevation: Digital elevation models (DEM) for this project used USGS 10 meter DEM data provided at quarter-quadrangle extents. These were merged together to create a continuous elevation model of the analysis area.

The merged DEM file was used to create two derivative data layers; aspect and slope. Both were created using the spatial analyst extension in ArcGIS 9.1. Aspect data values retained one decimal point accuracy representing the cardinal direction of direct solar radiation, represented in degrees. Slope was recorded in degrees and retained two decimal points accuracy.

Remotely Sensed Images: Landsat 7 Enhanced Thematic Mapper (ETM+) images were used to assess plant cover information and percent of canopy cover. The Landsat ETM+ instrument is an eight-band multi-spectral scanning radiometer capable of providing high-resolution image information of the Earth's surface. It detects spectrally-filtered radiation at visible, near-infrared, short-wave, and thermal infrared frequency bands from the sun-lit Earth. Nominal ground sample distances or "pixel" sizes are 15 meters in the panchromatic band; 30 meters in the 6 visible, near and short-wave infrared bands; and 60 meters in the thermal infrared band.

The satellite orbits the Earth at an altitude of approximately 705 kilometers with a sun-synchronous 98-degree inclination and a descending equatorial crossing time of 10 a.m. daily.

Image spectrometry has great application for monitoring vegetation and biophysical characteristics. Vegetation reflectance often contains information on the vegetation chlorophyll absorption bands in the visible region and the near infrared region. Plant water absorption is easily identified in the middle infrared bands. In addition, exposed soil, rock, and non-vegetative

surfaces are easily separated from vegetation through standard hyper-spectral analysis procedures.

Two Landsat 7 ETM images were obtained to conduct hyper-spectral analysis for this project. The first was obtained in 2004 and the second in 2006. Hyper-spectral analysis procedures followed the conventions used by the Washington Vegetation and Land Cover Classification System, modified from Redmond (1997) and Homer (1998).

Riparian Zones: Riparian zones were derived from stream layers created during the Interior Columbia Basin Ecosystem Management Project (Quigley *et al.* 2001).

Past Fires: Past fire extents represent those locations on the landscape that have previously burned during a wildfire. Past fire extent maps were obtained from a variety of sources for the southeast Washington area including the USDA Forest Service and Washington Department of Natural Resources.

Fire Prone Landscapes: Using the methodology developed by Schlosser *et al.* (2002, 2003, 2004), and refined for this project, the factors detailed above were used to assess the potential for the landscape to burn during the fire season in the case of fire ignition. The entire region was evaluated at a resolution of 10 meters (meaning each pixel on the screen represented a 10 meter square on the ground) to determine the propensity for a particular area (pixel) to burn in the case of a wildfire. The analysis involved creating a linear regression analysis within the GIS program structure to assign a value to each significant variable, pixel-by-pixel. The analysis ranked factors from 0 (little to no risk) to 100 (extremely high risk) based on past fire occurrence.

A map of Fire Prone Landscapes in Asotin County is included in Appendix I.

Table 4.6. Fire Prone Landscape rankings and associated acres in each category for Asotin County.

		3 County Area		Asotin County	
Color Code	Value	Acres	Percent of Total Area	Acres	Percent of County's Area
	0	0	0%	0	0%
	10	23,829	2%	7,401	2%
	20	359,870	25%	58,411	14%
	30	240,048	17%	93,429	23%
	40	272,519	19%	124,420	30%
	50	72,460	5%	34,454	8%
	60	7,332	1%	2,394	1%
	70	33,921	2%	12,580	3%
	80	256,806	18%	56,335	14%
	90	145,985	10%	19,666	5%
	100	14,810	1%	594	0%
	Total	**1,427,579**		**409,682**	

Figure 4.5. Distribution of Fire Prone Landscapes in the 3 County Planning Area.

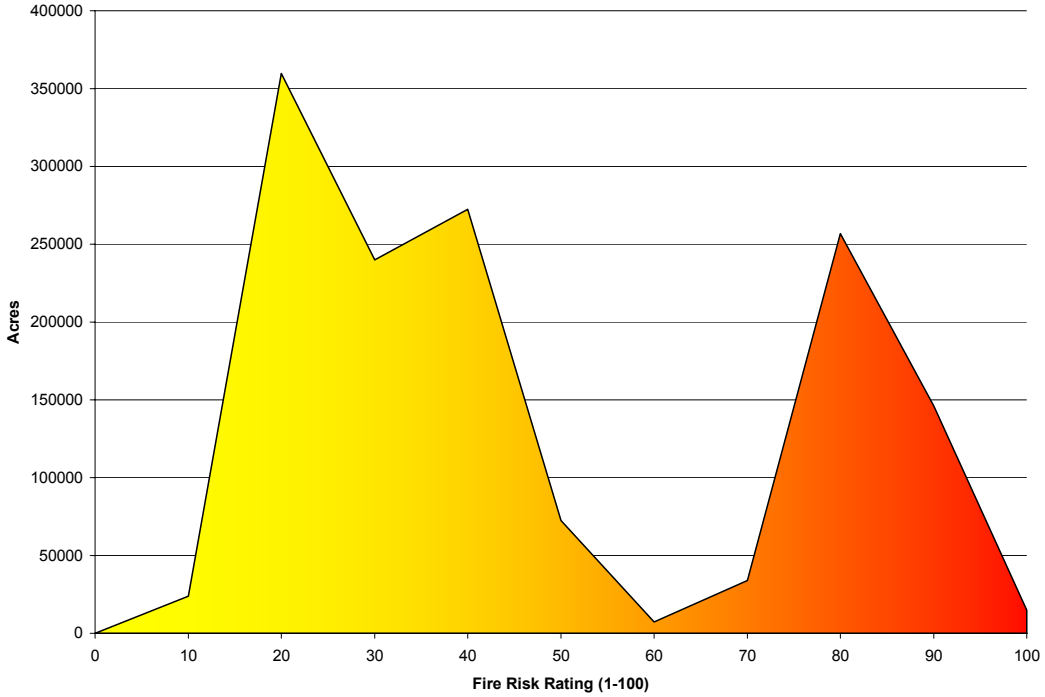
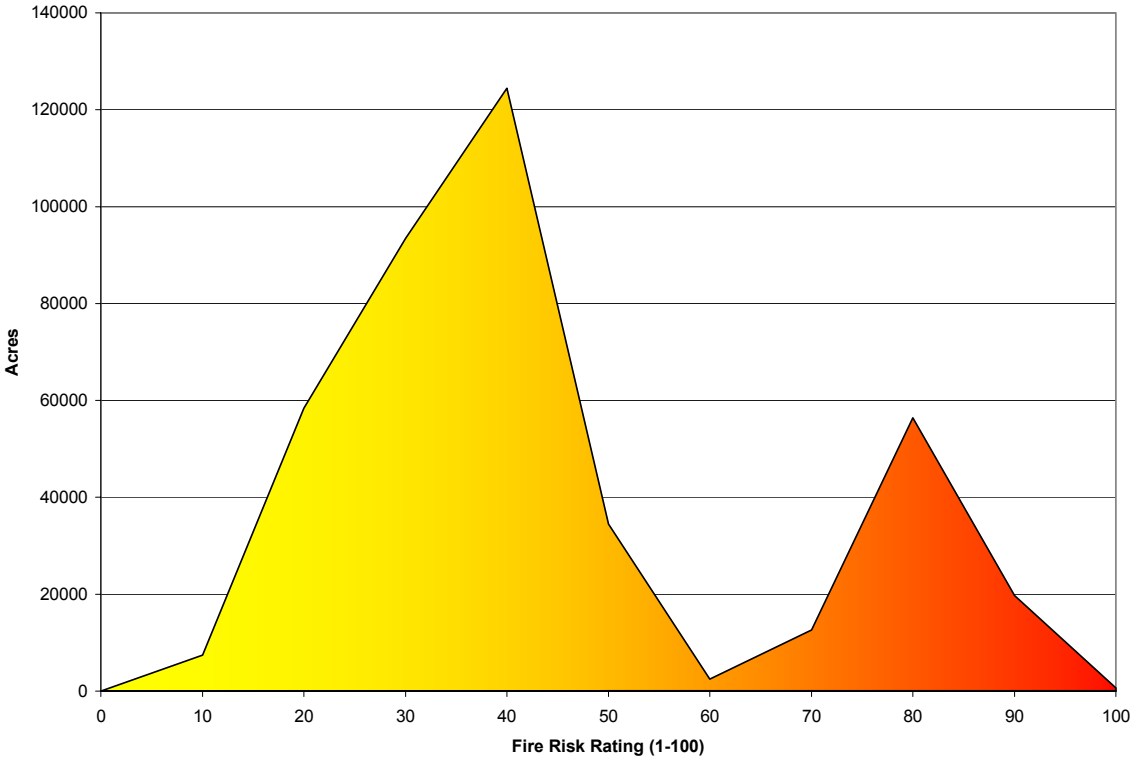


Figure 4.6. Distribution of Fire Prone Landscapes in Asotin County.



The risk category values developed in this analysis should be considered **ordinal data**, that is, while the values presented have a meaningful ranking, they neither have a true zero point nor scale between numbers. Rating in the “40” range is not necessarily twice as “risky” as rating in the “20” range. These category values also do not correspond to a rate of fire spread, a fuel loading indicator, or measurable potential fire intensity. Each of those scales is greatly influenced by weather, seasonal and daily variations in moisture (relative humidity), solar radiation, and other factors. The risk rating presented here serves to identify where certain constant variables are present, aiding in identifying where fires typically spread into the largest fires across the landscape.

4.3.2 Historic Fire Regime

In the fire-adapted ecosystems of Washington, fire is undoubtedly the dominant process in terrestrial systems that constrain vegetation patterns, habitats, and ultimately, species composition. Land managers need to understand historical fire regimes (that is, fire frequency and fire severity prior to settlement by Euro-Americans) to be able to define ecologically appropriate goals and objectives for an area. Moreover, managers need spatially explicit knowledge of how historical fire regimes vary across the landscape.

Many ecological assessments are enhanced by the characterization of the historical range of variability which helps managers understand: (1) how the driving ecosystem processes vary from site to site; (2) how these processes affected ecosystems in the past; and (3) how these processes might affect the ecosystems of today and the future. Obviously, historical fire regimes are a critical component for characterizing the historical range of variability in the fire-adapted ecosystems of Washington. Furthermore, understanding ecosystem departures provides the necessary context for managing sustainable ecosystems. Land managers need to understand how ecosystem processes and functions have changed prior to developing strategies to maintain or restore sustainable systems. In addition, the concept of departure is a key factor for assessing risks to ecosystem components. For example, the departure from historical fire regimes may serve as a useful proxy for the potential of severe fire effects from an ecological perspective.

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

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

4.3.2.1 Historic Fire Function

A natural fire regime is a general classification of the role fire would play across a landscape in the absence of modern human mechanical intervention, but including the influence of aboriginal burning (Agee 1993, Brown 1995). Coarse scale definitions for natural (historical) fire regimes have been developed by Hardy *et al.* (2001) and Schmidt *et al.* (2002) and interpreted for fire and fuels management by Hann and Bunnell (2001). The five natural (historical) fire regimes are classified based on average number of years between fires (fire frequency) combined with the

severity (amount of replacement) of the fire on the dominant overstory vegetation. These five regimes include:

I – 0-35 year frequency and low (surface fires most common) to mixed severity (less than 75% of the dominant overstory vegetation replaced);

II – 0-35 year frequency and high (stand replacement) severity (greater than 75% of the dominant overstory vegetation replaced);

III – 35-100+ year frequency and mixed severity (less than 75% of the dominant overstory vegetation replaced);

IV – 35-100+ year frequency and high (stand replacement) severity (greater than 75% of the dominant overstory vegetation replaced);

V – 200+ year frequency and high (stand replacement) severity.

As scale of application becomes finer these five classes may be defined with more detail, or any one class may be split into finer classes, but the hierarchy to the coarse scale definitions should be retained.

4.3.2.2 General Limitations

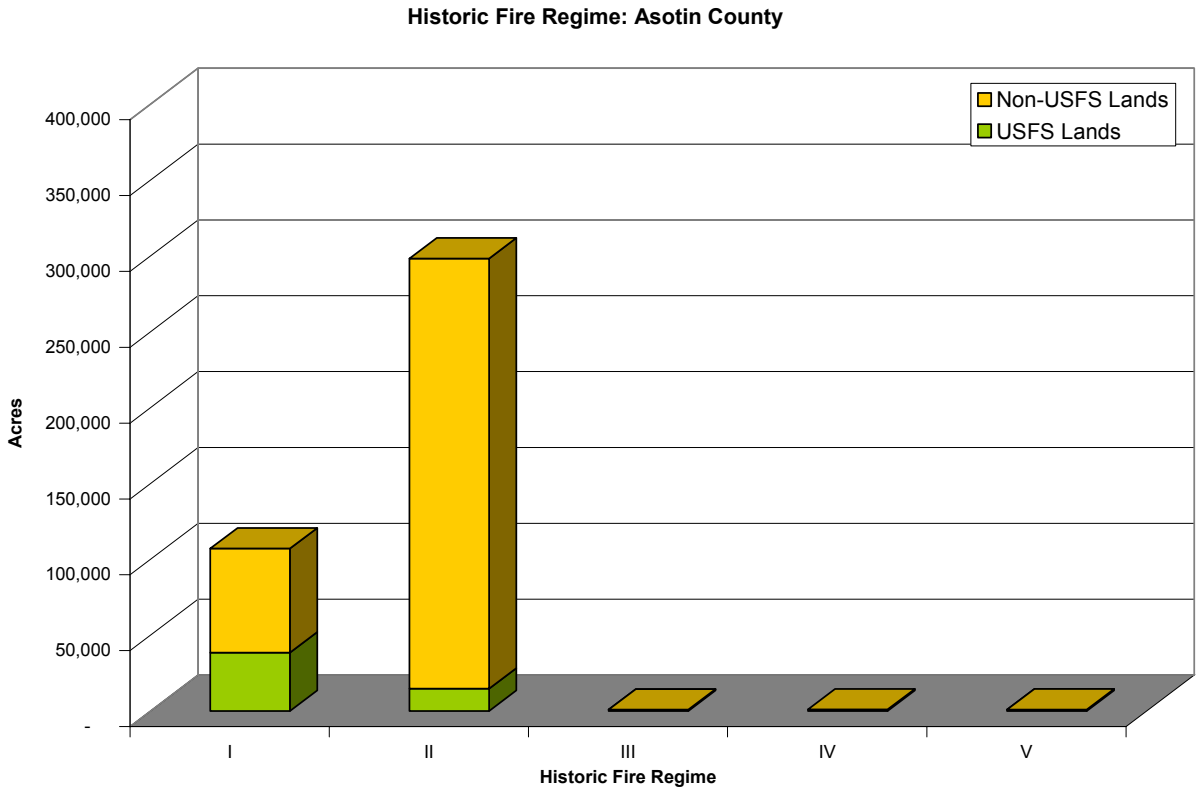
These data were derived using fire history data from a variety of different sources. These data were designed to characterize broad scale patterns of historical fire regimes for use in regional and subregional assessments. Any decisions based on these data should be supported with field verification, especially at scales finer than 1:100,000.

Two data sources have been integrated together to constitute this analysis. The first was generated by the Umatilla National Forest and is based on stand level data used to generate accurate and reliable data. This data is represented for the USFS managed lands in the analysis. The second source of data was generated from coarse scale data estimating potential vegetation and current vegetation types, integrated with historic fire extent parameters. The resolution of this HFR theme is a 1,000 meter cell size, therefore the expected accuracy does not warrant their use for analyses of areas smaller than about 10,000 acres (for example, assessments that typically require 1:24,000 data). This data is presented for all of the remaining lands in the analysis area and should be used for reference purposes.

Table 4.7. Assessment of Historic Fire Regimes in Asotin County.

		USFS Lands		Rest of County		Combined	
Regime	**Description**	**Acres**	**Percent**	**Acres**	**Percent**	**Acres**	**Percent**
1	0-35 yrs; Low Severity	38,501	24%	68,697	17%	107,199	26%
2	0-35 yrs; Stand Replacement	14,716	9%	283,570	71%	298,287	73%
3	35-100+ yrs; Mixed Severity	925	1%	-	0%	925	0%
4	35-100+ yrs; Stand Replacement	90	0%	969	0%	1,060	0%
5	200+ yrs; Stand Replacement	969	1%	-	0%	969	0%
7	Water	-	0%	1,310	0%	1,310	0%
	Total	**55,202**		**354,547**		**409,749**	

Figure 4.7. Historic Fire Regimes in Asotin County.



A map of the Historic Fire Regimes in Asotin County is included in Appendix I.

4.3.3 Fire Regime Condition Class

A fire regime condition class (FRCC) is a classification of the amount of departure from the natural regime (Hann and Bunnell 2001). Coarse-scale FRCC classes have been defined and mapped by Hardy *et al.* (2001) and Schmidt *et al.* (2001) (FRCC). They include three condition classes for each fire regime. The classification is based on a relative measure describing the degree of departure from the historical natural fire regime. This departure results in changes to one (or more) of the following ecological components: vegetation characteristics (species composition, structural stages, stand age, canopy closure, and mosaic pattern); fuel composition; fire frequency, severity, and pattern; and other associated disturbances (e.g. insect and diseased mortality, grazing, and drought). There are no wildland vegetation and fuel conditions or wildland fire situations that do not fit within one of the three classes.

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

Characteristic vegetation and fuel conditions are considered to be those that occurred within the natural (historical) fire regime. Uncharacteristic conditions are considered to be those that did

not occur within the natural (historical) fire regime, such as invasive species (e.g. weeds, insects, and diseases), "high graded" forest composition and structure (e.g. large trees removed in a frequent surface fire regime), or repeated annual grazing that maintains grassy fuels across relatively large areas at levels that will not carry a surface fire. Determination of the amount of departure is based on comparison of a composite measure of fire regime attributes (vegetation characteristics; fuel composition; fire frequency, severity and pattern) to the central tendency of the natural (historical) fire regime. The amount of departure is then classified to determine the fire regime condition class. A simplified description of the fire regime condition classes and associated potential risks are presented in Table 4.8. Maps depicting Fire Regime and Condition Class are presented in Appendix I.

Table 4.8. Fire Regime Condition Class Definitions.

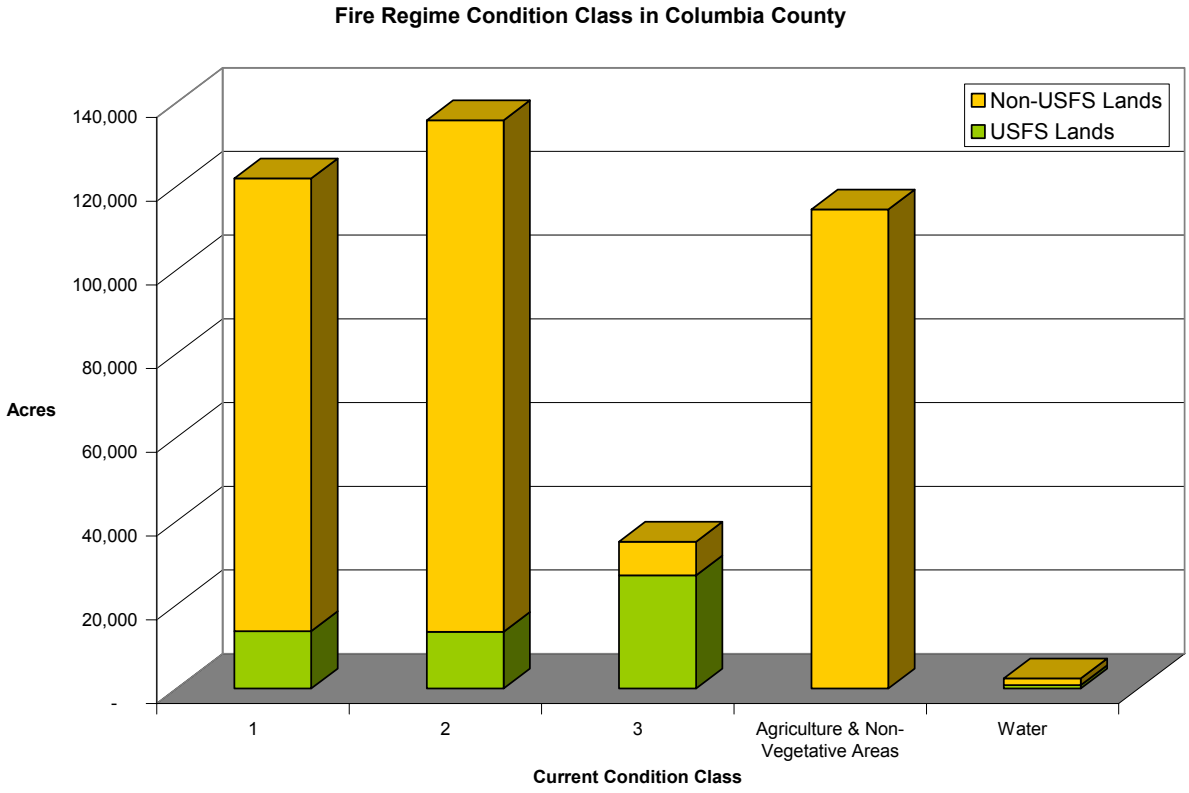
Fire Regime Condition Class	Description	Potential Risks
Condition Class 1	Within the natural (historical) range of variability of vegetation characteristics; fuel composition; fire frequency, severity and pattern; and other associated disturbances.	Fire behavior, effects, and other associated disturbances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

An analysis of Fire Regime Condition Class in Asotin County shows that approximately 30% of the County is in Condition Class 1 (low departure), just about 33% is in Condition Class 2 (moderate departure), with 9% of the area in Condition Class 3 (Table 4.9). Water and agricultural land is considered separately because they cannot be compared to historic fire regimes.

Table 4.9. Assessment of Current Condition Class in Asotin County.

	USFS Lands		Non-USFS Lands		Total	
	Acres	Percent of Area	Acres	Percent of Area	Acres	Percent of Area
Condition Class 1	13,692	25%	108,163	31%	121,855	30%
Condition Class 2	13,555	25%	122,190	34%	135,744	32%
Condition Class 3	27,011	49%	8,087	2%	35,097	9%
Agriculture	-	0%	114,452	33%	114,452	28%
Water	790	1%	1,654	0%	2,445	1%
Total	**55,048**		**354,547**		**409,594**	

Figure 4.8. Fire Regime Condition in Asotin County.



The Asotin County Fire Regime Condition Class Map is included in Appendix I.

4.4 Asotin County Conditions

Asotin County is comprised by three ecologically diverse subregions, 1) the Snake River breaks, 2) agricultural lands, and 3) forestlands. Each possesses a different historic fire function and frequency of fire return.

The Snake River breaks along the northern reaches of the county are prone to frequent but low intensity fires in the steep grass steppe of the region. Generally, these fires are ignited by a combination of human causes and lightning. These areas are relatively easy to access in Asotin

County, but fires spread rapidly uphill where they are often met with resistance to burn from cultivated fields or fire suppression efforts. Given the land use patterns in the region, these fires pose limited risk to structures and people since historically, few homes have been built on this steep and inaccessible terrain. This is changing however, as new homes are being built overlooking the Snake River.

The agricultural lands of the region are plentiful. Dry land farming and livestock grazing dominates the county with cultivation interrupted only by inaccessible finger-draws and human habitation. These lands historically hosted frequent wildfires which burned off the flashy vegetation such as grasses, sagebrush, and rabbitbrush. Currently, fields in active harvest rotation are not at significant risk; however, with the advent of the Conservation Reserve Program, thousands of acres of agricultural fields have much higher than natural fuel loads. Many ranches and farmsteads in Asotin County could be at risk due to the surrounding fuels, particularly those surrounded by CRP or with little defensible space. Fortunately, many landowners recognize the potential fire risk and frequently maintain plowed fuel breaks around structures. In several instances, the presence of livestock grazing around communities or farmsteads has attenuated the fuel risks for that area as well.

The third subregion is the forested lands of Asotin County. These lands represent the most difficult areas to suppress wildfires. Historical records suggest these forestlands are also prone to frequent wildfire occurrence. Vegetation is typically characterized by ponderosa pine, Douglas-fir, western larch, and grand fir forests (along with other species). Topography is flat to steep, with every combination of steepness and aspect possible. Forest health ranges from excellent to diseased or infected (posing larger risks for wildfire control due to dead and dying trees). Ownership of the forestlands in Asotin County is a combination of state, federal, and private landowners. Access ranges from good to poor and communication in the region is limited.

The transition zone between forestland and the riparian vegetation of the major drainages consists of a complex interfingering dependent on localized topographic and climatic conditions. A ponderosa pine and Douglas-fir habitat type typically forms the lower timberline on hills and low mountains. Mixed Douglas-fir, grand fir, lodgepole pine, western red cedar, and western larch forests dominate at mid-elevations elevations, while subalpine fir, lodgepole, and Engelmann spruce occur at higher elevations.

Asotin County is characterized by cold winters and hot, dry summers. Fires in the forest fuel types present throughout the Blue Mountain region have the potential to produce frequent, large and intense fires, resulting in high social and economic costs. This potential has been realized several times over in the last century. Just within the last 20 years Asotin County residents have seen more than three large and damaging wildfires. These events clearly illustrate the mounting urban-interface issue facing Asotin County.

Population growth rates have been steadily increasing throughout the County and the region. The growing appreciation for seclusion has led to significant development in the most accessible forests, especially near Anatone. Frequently, this development is in the dry ponderosa pine – Douglas-fir forest types where grass, needle, and brush surface litter create forest fuel conditions that are at a high propensity for fire occurrence. Human use is strongly correlated with fire frequency, with increasing numbers of fires as use increases. Discarded cigarettes, tire fires, and hot catalytic converters increase the potential for fire starts along roadways. Careless and unsupervised use of fireworks also contributes to unwanted and unexpected wildland fires. Further contributing to ignition sources are the debris burners (burn barrels) and “sport burners” who use fire to rid ditches of weeds and other burnable materials. Farming and logging equipment have also been the source of accidental ignitions. The

increased potential for fire starts and the fire prone landscapes in which homes have been constructed greatly increases the potential for fires in interface areas.

4.5 Asotin County's Wildland-Urban Interface

The Wildland-Urban Interface has gained attention through efforts targeted at wildfire mitigation; however, this analysis technique is also useful when considering other hazards because the concept looks at where people and structures are concentrated in any particular region. For Asotin County, the WUI shows the relative concentrations of structures scattered across the county.

A key component in meeting the underlying need for protection of people and structures is the protection and treatment of hazards in the wildland-urban interface. The wildland-urban interface refers to areas where wildland vegetation meets urban developments, or where forest fuels meet urban fuels in the case of wildfires (such as houses). These areas encompass not only the interface (areas immediately adjacent to urban development), but also the continuous slopes that lead directly to a risk to urban developments be it from wildfire, landslides, or floods. Reducing the hazard in the wildland-urban interface requires the efforts of federal, state, and local agencies and private individuals (Norton 2002). "The role of [most] federal agencies in the wildland-urban interface includes wildland firefighting, hazard fuels reduction, cooperative prevention and education and technical experience. Structural fire protection [during a wildfire] in the wildland urban interface is [largely] the responsibility of Tribal, state, and local governments" (USFS 2001). Property owners share a responsibility to protect their residences and businesses and minimize danger by creating defensible areas around them and taking other measures to minimize the risks to their structures (USFS 2001). With treatment, a wildland-urban interface can provide firefighters a defensible area from which to suppress wildland fires or defend communities against other hazard risks. In addition, a wildland-urban interface that is properly thinned will be less likely to sustain a crown fire that enters or originates within it (Norton 2002).

By reducing hazardous fuel loads, ladder fuels, and tree densities, and creating new and reinforcing defensible space, landowners would protect the wildland-urban interface, the biological resources of the management area, and adjacent property owners by:

- minimizing the potential of high-severity ground or crown fires entering or leaving the area;
- reducing the potential for firebrands (embers carried by the wind in front of the wildfire) impacting the WUI. Research indicates that flying sparks and embers (firebrands) from a crown fire can ignite additional wildfires as far as 1¼ miles away during periods of extreme fire weather and fire behavior (McCoy *et al.* 2001);
- improving defensible space in the immediate areas for suppression efforts in the event of wildland fire.

Three wildland-urban interface conditions have been identified (Federal Register 66(3), January 4, 2001) for use in wildfire control efforts. These include the Interface Condition, Intermix Condition, and Occluded Condition. Descriptions of each are as follows:

- **Interface Condition** – a situation where structures abut wildland fuels. There is a clear line of demarcation between the structures and the wildland fuels along roads or back fences. The development density for an interface condition is usually 3+ structures per acre;

- **Intermix Condition** – a situation where structures are scattered throughout a wildland area. There is no clear line of demarcation, the wildland fuels are continuous outside of and within the developed area. The development density in the intermix ranges from structures very close together to one structure per 40 acres;
- **Occluded Condition** – a situation, normally within a city, where structures abut an island of wildland fuels (park or open space). There is a clear line of demarcation between the structures and the wildland fuels along roads and fences. The development density for an occluded condition is usually similar to that found in the interface condition and the occluded area is usually less than 1,000 acres in size; and

In addition to these classifications detailed in the Federal Register, four additional classifications of population density have been included to augment these categories:

- **Rural Condition** – a situation where the scattered small clusters of structures (ranches, farms, resorts, or summer cabins) are exposed to wildland fuels. There may be miles between these clusters. The condition of the WUI connects these clusters into a relatively homogenous area.
- **High Density Urban Areas** – those areas generally identified by the population density consistent with the location of larger incorporated cities, however, the boundary is not necessarily set by the location of city boundaries: it is set by very high population densities (more than 15-30 structures per acre or more). Many counties and reservations in the west do not have high density urban areas. Asotin County, Washington, was determined not to have any areas of high density urban based on current (2006) structure locations. However, in the nearby Asotin County, Clarkston, Washington, is representative of a high density urban condition.
- **Infrastructure Area WUI** – those locations where critical and identified infrastructure are located outside of populated regions and may include high tension power line corridors, critical escape or primary access corridors, municipal watersheds, areas immediately adjacent to facilities in the wildland such as radio repeater towers or fire lookouts. These are identified by county or reservation level core teams.
- **Non-WUI Condition** - a situation where the above definitions do not apply because of a lack of structures in an area or the absence of critical infrastructure crossing these unpopulated regions. This classification is not WUI.

In summary, the designations of areas by the Asotin County core team includes:

- High Density Urban Areas: WUI
- Interface Condition: WUI
- Intermix Condition: WUI
- Occluded Condition: Not Present
- Rural Condition: WUI
- Infrastructure Areas: WUI
- Non-WUI Condition: Not WUI, but present in Asotin County

The locations of structures in Asotin County have been mapped and are presented on a variety of maps in this analysis document; specifically in Appendix I. The location of all structures was determined by examining aerial photography. The Farm Services Agency, working with states, counties, tribes, and the state and federal government, have contracted to acquire and make

available NAIP color imagery. These aerial photographs are 1 meter resolution (very high quality), and show land based features with acceptable resolution and quality. County level mosaics were obtained for Asotin, Columbia, and Garfield Counties, and for the adjacent counties, and were used to provide locations for digitized structures in the region.

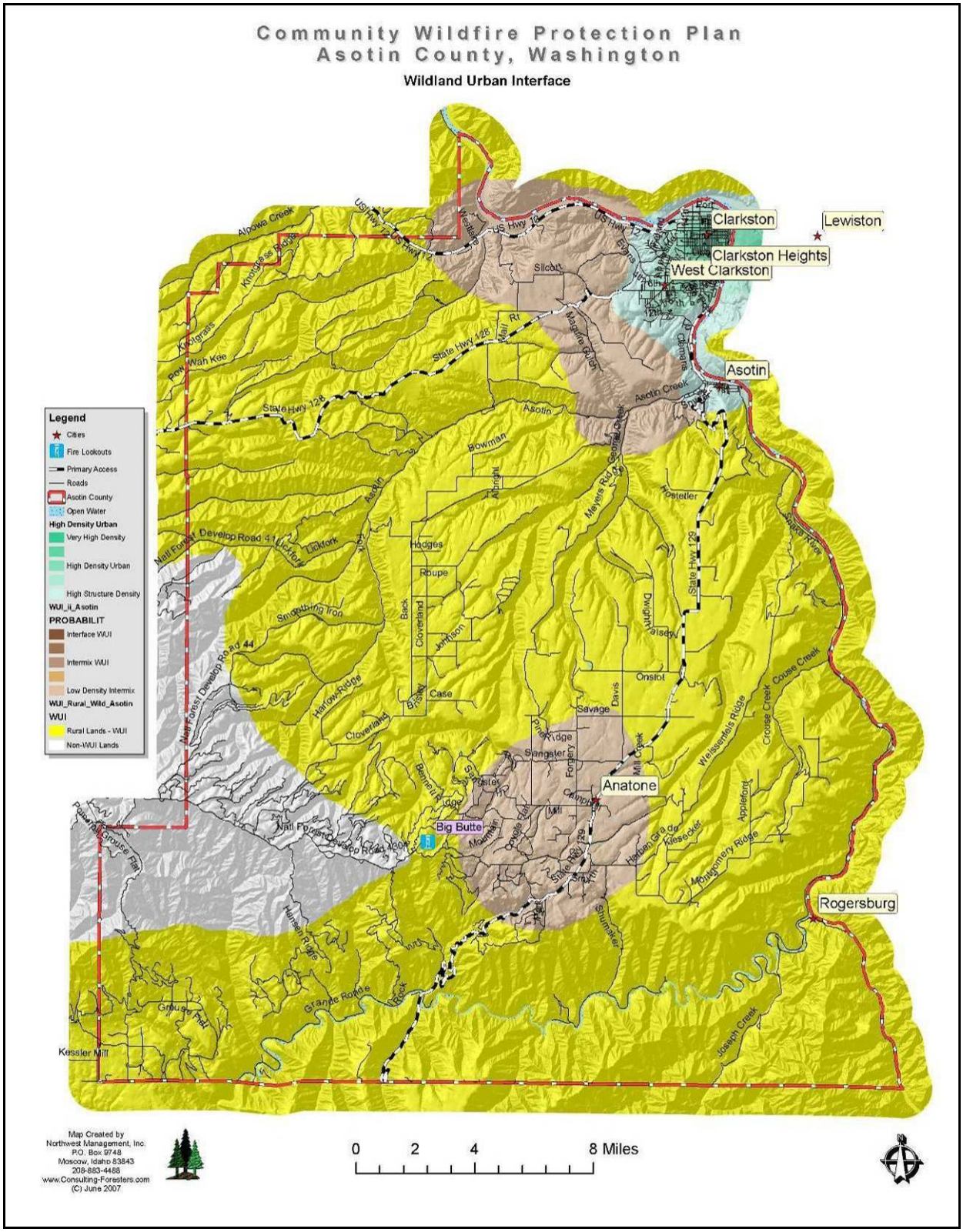
These records were augmented with data collected on hand-held GPS receivers to record the location of structures otherwise obscured from photography.

All structures are represented by a "dot" on the map. No differentiation is made between a garage and a home, or a business and a storage building. The density of structures and their specific locations in this management area are critical in defining where the potential exists for casualty loss in the event of a disaster in the region.

By evaluating this structure density, we can define WUI areas on maps by using mathematical formulae and population density indexes to define the WUI based on where structures are located. The resulting population density indexes create concentric circles showing high density areas of high density urban, Interface and Intermix Condition WUI, as well as Rural Condition WUI (as defined above). This portion of the analysis allows us to "see" where the highest concentrations of structures are located in reference to high risk landscapes, limiting infrastructure, and other points of concern. The WUI, as defined here, is unbiased, consistent, allows for edge matching with other counties and most important – it addresses all of the county, not just identified communities. It is a planning tool showing where homes and businesses are located and the density of those structures leading to identified WUI categories. It can be determined again in the future, using the same criteria, to show how the WUI has changed in response to increasing population densities. It uses a repeatable and reliable analysis process that is unbiased. This mapping procedure was followed and is presented in the maps included in the Appendix I.

The Healthy Forests Restoration Act makes a clear designation that the location of the WUI is at the determination of the County or Reservation when a formal and adopted Community Wildfire Protection Plan is in place. It further states that the federal agencies are obligated to use this WUI designation for all Healthy Forests Restoration Act purposes. The Asotin County Community Wildfire Protection Plan core team evaluated a variety of different approaches to determining the WUI for the County and selected this approach and has adopted it for these purposes. In addition to a formal WUI map for use with the federal agencies, it is hoped that it will serve as a planning tool for the county and local fire districts.

Figure 4.10. Wildland Urban Interface Map in Asotin County.



4.5.1 Potential WUI Treatments

The definition and mapping of the WUI is the creation of a planning tool to identify where structures, people, and infrastructure are located in reference to each other. This analysis tool does not include a component of fuels risk. There are a number of reasons to map and analyze these two components separately (population density vs. fire risk analysis). The primary among these reasons is the fact that population growth often occurs independent from changes in fire risk, fuel loading, and infrastructure development. Thus, making the definition of the WUI dependant on all of them would eliminate populated places with a perceived low level of fire risk today, which may in a year become an area at high risk due to forest health issues or other concerns.

By examining these two tools separately the planner is able to evaluate these layers of information to see where the combination of population density overlays on top of areas of high current fire risk and then take mitigative actions to reduce the fuels, improve readiness, directly address factors of structure ignitability, improve initial attack success, mitigate resistance to control factors, or (more often) a combination of many approaches.

It should not be assumed that just because an area is identified as WUI, that it will therefore receive treatments because of this identification alone. Nor should it be implicit that all WUI treatments will be the application of the same prescription. Instead, each location targeted for treatments must be evaluated on its own merits: factors of structural ignitability, access, resistance to control, population density, resources and capabilities of firefighting personnel, and other site specific factors.

It should also not be assumed that WUI designation on national forest lands automatically equates to a treatment area. The Forest Service is still obligated to manage according to the Standards and Guides listed in the Umatilla National Forest Land and Resource Management Plan (Forest Plan). The Forest Plan has legal precedence over the WUI designation until such a time that the Forest Plan is revised to reflect updated priorities.

All planning in relation to wildfire mitigation must be taken in light of the existing regulatory and environmental laws in place. This will be determined by the owner of the parcel implementing the treatment. Thus, if proposed activities are to occur on federal lands, then the National Environmental Policy Act (NEPA) will determine environmental protection measures. Similarly, if the proposed action is to occur on state lands or private lands, then the Forest Practices Act and SEPA would govern environmental impacts. We have not diminished private property rights through the development of this document. Environmental protection is inherent to all projects because of the existing regulatory environment in Washington State.

Most treatments may begin with the home evaluation, and the implicit factors of structural ignitability (roofing, siding, deck materials), and vegetation within the treatment area of the structure. However, treatments in the low population areas of rural lands (mapped as yellow) may look closely at access (two ways in and out) and communications through means other than land based telephones. On the other hand, the subdivision with densely packed homes (mapped as brown – interface areas) surrounded by forests and dense underbrush, may receive more time and effort implementing fuels treatments beyond the immediate home site to reduce the probability of a crown fire entering the subdivision.

4.6 Asotin County Communities At Risk

Individual community assessments have been completed for all of the populated places in the county. The following summaries include these descriptions and observations. Local place names identified during this plan's development include:

Table 4.10. Asotin County Communities.

Community Name	Planning Description	Vegetative Community	National Register Community At Risk?[1]
Clarkston	City	Agriculture, HDU	No
Clarkston Heights	City	Agriculture, HDU	No
West Clarkston	City	Agriculture, HDU	No
Asotin	City	Rangeland / Breaks	Yes
Anatone	Town	Rangeland / Woodland	Yes
Anatone (Big Butte Lookout)	Named Place	Rangeland/Woodland	Yes
Anatone (West Mt. Residences)	Named Place	Rangeland/Woodland	Yes
Anatone (East Mt. Residences)	Named Place	Rangeland/Woodland	No
Rogersburg	Town	Rangeland / Breaks	No
Cloverland	Named Place / Community	Rangeland / Agriculture	No
Craige	Named Place / Community	Rangeland / Agriculture	No
Grahams Landing	Named Place / Community	Rangeland / Breaks	No
Grande Ronde	Named Place / Community	Rangeland / Breaks	No
Grouse	Named Place / Community	Woodland	No
Hanson Ferry	Named Place / Community	Rangeland / Breaks	No
Jerry	Named Place / Community	Rangeland / Breaks	No
Mountain View	Named Place / Community	Woodland	No
Silcott	Named Place / Community	Rangeland / Breaks	No
Taplin	Named Place / Community	Rangeland / Breaks	No
Theon	Named Place / Community	Rangeland / Agriculture	No

[1]Those communities with a "Yes" in the National Register Community at Risk column are included in the Federal Register, Vol. 66, Number 160, Friday, August 17, 2001, as "Urban Wildland Interface Communities within the vicinity of Federal Lands that are at high risk from wildfires". All of these communities have been evaluated as part of this plan's assessment.

Because the Wildland Urban Interface map for Asotin County was based primarily on population density as described above, all of these communities and the populated areas surrounding them are within the Asotin County Wildland-Urban Interface.

4.7 Communities and Places in Asotin County

Vegetative structure and composition in Asotin County is closely related to elevation, aspect, and precipitation. Relatively mild and dry environments characterize the undulating topography of the region which transitions from the Snake River valley riparian plant communities to the rangeland ecosystems that characterize the vast majority of the land area in Asotin County. Forested communities extend this transition as elevations increases, soils change, and conditions favor forest tree species. Forests contain high fuel accumulations that have the potential to burn at moderate to high intensities. Highly variable topography coupled with dry, windy weather conditions typical of the region is likely to create extreme fire behavior.

The transition between developed agricultural land and timberlands occurs somewhat abruptly, usually along toe slopes or distinct property boundaries. At higher elevation mountainous regions, moisture becomes less limiting due to a combination of higher precipitation and reduced solar radiation. Vegetative patterns shift from forested communities dominated by ponderosa pine, western larch, grand fir, and Douglas-fir at the lower elevations to lodgepole

pine and subalpine fir at the higher elevations. Engelmann spruce is found in moist draws and frost pockets. These forested conditions possess a greater quantity of both dead and down fuels as well as live fuels. Rates of fire spread tend to be lower than those in the grasslands; however, intensities can escalate dramatically, especially under the effect of slope and wind. These conditions can lead to control problems and potentially threaten lives, structures and other valued resources.

As elevation and aspect increase available moisture, forest composition transitions to moister habitat types. Increases in moisture keep forest fuels unavailable to burn for longer periods during the summer. This increases the time between fire events, resulting in varying degrees of fuel accumulation. When these fuels do become available to burn, they typically burn in a mosaic pattern at mid elevations, where accumulations of forest fuels result in either single or group tree torching, and in some instances, short crown fire runs. At the highest elevations, fire events are typically stand replacing, as years of accumulation fuel large, intense wildfires.

Insects and disease can cause widespread mortality of forest stands in a very short amount of time. Mountain pine beetle populations have continued to increase at epidemic levels throughout Washington State; however, mortality increases are most pronounced in Eastern Washington. Ponderosa pine and lodgepole pine seem to be the most affected species at all elevations in Asotin County. The occurrence of Ips beetles, Douglas-fir Bark-beetle, Douglas-fir Tussock Moth, and root disease have also been recorded in Eastern Washington (Washington State Department of Natural Resources 2006). Insects and disease often focus and cause the most mortality in forest stands that are overcrowded or otherwise stressed by drought, recent fires, or other factors. Large areas of dead trees are a significant fire hazard. Oftentimes, dry, dead needles hang on the killed trees for several years making them prime for a potential ignition and subsequent crown fire. Thinning overcrowded stands can help reduce stress on individual trees allowing them to better withstand insect attacks. Planting of appropriate species for the site and continual management can also help ward off future outbreaks.

Many lower elevation forested areas throughout Asotin County are highly valued for their scenic qualities as well as for their proximity to travel corridors. These attributes have led to increased recreational home development and residential home construction in and around forest fuel complexes. The juxtaposition of highly flammable forest types and rapid home development will continue to challenge management of wildland fires in the wildland-urban interface.

4.7.1 Overall Fuels Assessment

The slight to undulating topography and moisture availability across much of Asotin County facilitates extensive farming operations, especially from Anatone north. Agricultural fields infrequently serve to fuel a fire after curing; burning in much the same manner as consistent low grassy fuels. Fires in grass and rangeland fuel types tend to burn at relatively low intensities, with moderate flame lengths and only short-range spotting. Suppression resources are generally quite effective in such fuels. Homes and other improvements can be easily protected from the direct flame contact and radiant heat through adoption of precautionary measures around the structure. Although fires in these fuels may not present the same control problems as those associated with large, high intensity fires in timber fuel types, they can cause significant damage if precautionary measures have not taken place prior to a fire event. Wind driven fires in these short grass fuel types spread rapidly and can be difficult to control. During extreme drought and when pushed by high winds, fires in grassland fuel types can exhibit extreme rates of spread, thwarting suppression efforts.

A patch-work of dry ponderosa pine and Douglas-fir woodlands is located in the southwestern corner of the county. Forest stands in some parts of Asotin County have begun suffering from

forest health issues. In addition, tree regeneration is resulting in multistoried conditions with abundant ladder fuels. During pre-settlement times, much of this area was characterized by low intensity fires due to the relatively light fuel loading, which mostly consisted of small diameter fuels. Frequent, low intensity fires generally kept stands open; free of fire intolerant species and promoted seral species such as ponderosa pine as well as larger diameter fire resistant Douglas-fir. In some areas, low intensity fires stimulated shrubs and grasses, maintaining vigorous browse and forage. The shrub layer could either inhibit or contribute to potential fire behavior, depending on weather and live fuel moisture conditions at the time of the burn.

The region southeast of Anatone is located at the top of a steep canyon dropping into the Grande Ronde River. A mosaic of rangeland and woodlands dominate the area culminating at the top of the canyon where woodlands are dominated by ponderosa pine and Douglas-fir. Many people have purchased small tracts of land in this location and built homes and cabins amongst the trees. Scenic vistas, rolling topography, and close juxtaposition to the national forest and Fields Spring State Park make this area desirable. However, the risk of catastrophic loss from wildfires in this location is significant. Fires igniting anywhere from the Grande Ronde River at the bottom of the canyon to any point up slope has the potential to grow rapidly and become very large by the time it crests the ridge near Anatone. Wildfire mitigation efforts in this area are a high priority.

Increased activities by pathogens will continue to increase levels of dead and down forest fuels, as host trees succumb to insect attack and stand level mortality increases. Overstocked, multi-layered stands and the abundance of ladder fuels lead to horizontal and vertical fuel continuity. These conditions, combined with an arid and often windy environment, can encourage the development of a stand replacing fire. These fires can burn with very high intensities and generate large flame lengths and fire brands that can be lofted long distances. Such fires present significant control problems for suppression resources, often developing into large, destructive wildland fires.

A probability that needs to be planned for is the likelihood of extended spot fires. Large fires may easily produce spot fires from ½ to 2 miles away from the main fire. How fire suppression forces respond to spot fires is largely dependent upon the fuels in which they ignite. Stands of timber that are managed for fire resilience are much less likely to sustain torching and crowning behavior that produces more spot fires. The objective of fuel reduction thinning is to change the fuels in a way that will moderate potential fire behavior. If fire intensity can be moderated by vegetation treatments, then ground and air firefighting resources can be much more effective.

4.7.2 Overall Mitigation Activities

There are many specific actions that will help improve the safety in a particular area; however, there are also many potential mitigation activities that apply to all residents and all fuel types. General mitigation activities that apply to all of Asotin County are discussed below while area specific mitigation activities are discussed within the individual community assessments.

The safest, easiest, and most economical way to mitigate unwanted fires is to stop them before they start. Generally, prevention actions attempt to prevent human-caused fires. Campaigns designed to reduce the number and sources of ignitions can be quite effective. Prevention campaigns can take many forms. Traditional “Smokey Bear” type campaigns that spread the message passively through signage can be quite effective. Signs that remind folks of the dangers of careless use of fireworks, burning when windy, and leaving unattended campfires can be quite effective. A fire danger warning sign posted on the north side of Anatone helps remind residents and visitors of the current conditions. It’s impossible to say just how effective

such efforts actually are, however the low costs associated with posting of a few signs is inconsequential compared to the potential cost of fighting a fire.

Slightly more active prevention techniques may involve mass media, such as radio or the local newspaper. Fire districts in other counties have contributed to the reduction in human-caused ignitions by running a weekly "run blotter," similar to a police blotter, each week in the paper. The blotter briefly describes the runs of the week and is followed by a "tip of the week" to reduce the threat from wildland and structure fires. The federal government has been a champion of prevention, and could provide ideas for such tips. When fire conditions become high, brief public service messages could warn of the hazards of misuse of fire or any other incendiary device. Such a campaign would require coordination and cooperation with local media outlets. However, the effort is likely to be worth the efforts, costs and risks associated with fighting unwanted fires.

Fire Reporting: The success of the Enhanced – 911 (E-911) emergency reporting system can be measured at the frequency that fire calls route to the county emergency centers. Some wildland firefighting agencies maintain direct Forest Fire Reporting numbers, but the bulk of fire reports go to the Communication Centers.

When a fire call comes into Asotin County E-911 Communication Center, the local fire protection districts are paged out to respond. Dispatch calls Asotin County Fire District #1 for all fires within the district boundaries as well as any unprotected areas. Fire District #1 then determines the location of the fire and contacts the appropriate agencies. The Washington State Department of Transportation Headquarters can also be reached at 1-360-705-7000 during the week.

Burn Permits: Washington State Department of Natural Resources is the prime agency issuing burn permits in forested areas of Asotin County. Washington DNR burn permits regulate silvicultural burning.

Washington Department of Ecology (DOE) is the primary agency issuing burn permits for improved property and agricultural lands. All DOE burn permits are subject to fire restrictions in place with WA DNR & local Fire Protection Districts.

Washington DNR has a general burning period referred to as "Rule Burn" wherein a written burn permit is not required in low to some moderate fire dangers.

The timeframes for the Rule Burn are from October 16th to June 30th. Washington DNR allows for Rule Burns to be ten foot (10') piles of forest, yard, and garden debris. From July 1st to October 15th if Rule Burns are allowed, they are limited to four foot (4') piles.

Asotin County does allow open burning outside the city limits of Clarkston. As part of their standard operating procedures, the Asotin County E-911 Communication Center, who handles the Fire Restriction calls for the Asotin County Sheriff's Office, asks that all burners call the Communication Center business number and report the location and when the burning is complete.

The E-911 Communication Center number is 509-758-2331 or 209-332-4618.

Defensible Space: Effective mitigation strategies begin with public awareness campaigns designed to educate homeowners of the risks associated with living in a flammable environment. Residents of Asotin County must be made aware that home defensibility starts with the homeowner. Once a fire has started and is moving toward a structure or other valued resources, the probability of that structure surviving is largely dependent on the structural and landscaping characteristics of the home. "Living with Fire, A Guide for the Homeowner" is an excellent tool for educating homeowners as to the steps to take in order to create an effective

defensible space. Residents of Asotin County should be encouraged to work with local fire departments and fire management agencies within the county to complete individual home site evaluations. Home defensibility steps should be enacted based on the results of these evaluations. Beyond the homes, forest management efforts must be considered to slow the approach of a fire that threatens a community.

Evacuation Plans: Development of community evacuation plans is necessary to assure an orderly evacuation in the event of a threatening wildland fire. Designation and posting of escape routes would reduce chaos and escape times for fleeing residents. Community safety zones should also be established in the event of compromised evacuations. Efforts should be made to educate homeowners through existing homeowners associations or creation of such organizations to act as conduits for this information.

Accessibility: Also of vital importance is the accessibility of the homes to emergency apparatus. If a home cannot be protected safely, firefighting resources will not jeopardize lives to protect a structure. Thus, the fate of the home will largely be determined by homeowner actions prior to the event. In many cases, homes' survivability can be greatly enhanced by following a few simple guidelines to increase accessibility such as widening or pruning driveways and creating a turnaround area for large vehicles.

Fuels Reduction: Recreational facilities such as Fields Spring State Park and the boat launches along the Snake River bordering with the State of Idaho, or in the surrounding forest and range lands should be kept clean and maintained. In order to mitigate the risk of an escaped campfire, escape proof fire rings and barbeque pits should be installed and maintained. Surface fuel accumulations in nearby forests can also be kept to a minimum by periodically conducting pre-commercial thinning, pruning and limbing, and possibly controlled burns.

Other actions that would reduce the fire hazard would be thinning and pruning timbered areas, creating a fire resistant buffer along roads and power line corridors, and strictly enforcing fire-use regulations. The high tension power lines crisscrossing the county are primary electrical power supplies to much of the state and region; thus, protecting this corridor should be a high priority. Ensuring that the area beneath the line has been cleared of potential high risk fuels and making sure that the buffer between the surrounding forest lands is wide enough to adequately protect the poles as well as the lines is imperative.

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

Rural Addressing: In order to assure a quick and efficient response to an event, emergency responders need to know specifically where emergency services are needed. Continued improvement and updating of the rural addressing system is necessary to maximize the effectiveness of a response.

Other Activities: Other specific mitigation activities are likely to include improvement of emergency water supplies and management of trees and vegetation along roads and power line right-of-ways. Furthermore, building codes should be revised to provide for more fire conscious construction techniques such as using fire resistant siding, roofing, and decking.

4.7.3 Incorporated Cities

Asotin County possesses two incorporated cities: Clarkston and Asotin. Both are located along the Snake River corridor and are surrounded by native rangelands on the steep slopes and abundant agriculture where terrain permits. The city of Asotin is the county seat.

4.7.3.1 Clarkston

Clarkston assessment area consists of the traditionally known incorporated city as well as the adjacent Clarkston Heights-Vineland area, West Clarkston, and the Clemens Addition south of Clarkston Heights, which is south of Clarkston. There is no noticeable break between the city limits and these developments; thus, for the purposes of this assessment, all of these areas will be considered together.

This area (Clarkston and Asotin) is the only example of High Density Urban WUI designation in the three county planning area. It is characterized by extremely high population densities, integrated structure fire services, and rangeland/agricultural fuels. The Snake River defines the eastern and northern boundary of the city. Lewiston, Idaho, is located due east of Clarkston on the opposite side of the river with a similar high density urban designation. These two cities comprise the largest metropolitan center in the region.

4.7.3.1.1 Fuels Assessment

The risk from structure loss due to a wildfire entering the Clarkston area is minimal. The surrounding Snake River to the north and east (as well as the location of Lewiston to the east), dramatically reduces the risk from a wildfire moving in from these directions.

Rangeland fuels are present along the entire western and southern border of Clarkston. These fuels are primarily grasses and sagebrush all intermixed with agriculture fields. Most of the native vegetation is grazed by livestock. Numerous vacant lots and pasture are scattered throughout the Clarkston urban area, which could aid fire spread depending on management, fuel moisture, and weather. Steep terrain dominated by both native and nonnative grasses and weeds between home sites also poses a potential problem. This type of fuel is very flashy, but typically does not burn with the intensity of a forestland fuel complex. While these fuels do not generally threaten homes in the area, they could ignite debris and wood structures adjacent to the homes (e.g. firewood stacks, decks, stored lumber, or rubbish). In this manner, these scattered lots within the city limits and adjacent to homes can act as a fuse carrying wildfire from the rangeland to homes. The converse is also true, in that a structure fire can spread to adjacent rangeland fuels, which is then carried to neighboring structures or into the rangeland.

Identification of the vacant lots in the area which support rangeland fuels and are on steep slopes, especially those leading to homes perched on the top of ridges, is critical to reducing the wildfire risk in Clarkston.

There are many ornamental trees around homes and within parks maintained within the Clarkston urban area. These hardwoods and softwoods do not pose a substantial wildfire risk in that most are maintained in a green and lush condition for the majority of the fire season.

Clarkston has a low risk of wildfire threatening the city center; however, structure fires within the city have some potential to spread from one structure to another; either carried by radiant heat or spread through common vegetation between structures. This risk is lessened by the presence of an active fire department and fire protection district.

4.7.3.1.2 Ingress-Egress

Access in and out of Clarkston is provided by Highway 12 running east-west. State Highway 183 provides access from the northern end of Clarkston across the Snake River (Red Wolf Crossing) to Whitman County. State Highway 129 (a.k.a. Snake River Road) parallels the Snake River from Clarkston to Asotin; however, this access point is primarily a means for residents in the southern locations to gain access north, as opposed to Clarkston residents escaping to the south. There are several options for access across the Snake River between Clarkston and Lewiston. Clarkston is a major regional transportation hub.

4.7.3.1.3 Infrastructure

There are eight municipal water supply wells located within Clarkston. All of them supply community drinking water and are managed by the Public Utilities District #1 of Asotin County. One of them (well #4, Standby) is an emergency water supply source. The remaining wells are permanent.

Electricity supply to the city is from various locale linked to the hydroelectric grid of the region. In the oldest parts of the city, powerlines supply power to homes and businesses. New construction and new subdivisions in the area tend to have underground power supplies. The removal of the power poles and the hanging wires over the native vegetation is an exceptional improvement to the risk portfolio of the city.

4.7.3.1.4 Fire Protection

The Clarkston Fire Department provides primarily structural fire protection within the city limits of Clarkston. The Asotin County Fire District #1 provides structural and wildland protection to Clarkston and the surrounding area (105 square miles). A complete system of fire hydrants is present throughout the city. Access challenges are present where steep driveways or inadequately built bridges are the only ingress/egress points. One way in, one way out streets accessing subdivisions or private homes, particularly in new construction areas, has become a safety issue for both residents and firefighters.

4.7.3.1.5 Potential Mitigation Activities

Because of the moderate level of risk in Clarkston, few potential mitigation activities are recommended at this time. The continued use of the surrounding landscape for active agricultural (not CRP) and livestock grazing will reduce fuel loading and; therefore, the potential fire risk.

In addition, the Asotin County Fire District #1 have so far been relatively successful at suppressing wildland fires. The continued support of these services by the community will improve their ability to fight fires effectively.

4.7.3.2 Asotin

Asotin is located along the Snake River, upstream from its confluence with the Clearwater River and Clarkston. The city is bordered by the river to the north and east and rangeland to the west and south. Ornamental hardwoods and softwoods are scattered around homes with native hardwoods prolific along Asotin Creek. The city is clustered along Asotin Creek, the banks of the Snake River, and State Highway 129. There are also several subdivisions and scattered homes up the Asotin Creek drainage, but outside of the city limits.

4.7.3.2.1 Fuels Assessment

The risk from structure loss due to a wildfire entering Asotin is moderate. Rangeland fuels surround this community. Fires in this fuel type have the potential to spread rapidly through the fine fuels, particularly when fanned by high winds. Scattered livestock grazing on the surrounding hillsides has drastically reduced fuel buildups; however, limited access points reduce response times and make suppression efforts difficult.

Asotin has a moderate risk of a wildfire threatening the city center; however, structure fires within the city have some potential to spread from one structure to another; either carried by radiant heat or spread through common vegetation between structures. This risk is lessened by the presence of an active fire protection district housed in Dayton.

One particular area of concern is located along the southern edge of the populated area, south of 4th Street. Here homes are located under ornamental trees with grasses and forbs growing around the structures. The area adjacent to the homes is a rangeland complex of vegetation located at the foot of the hill leading up to State Highway 129. The potential for an accidental human ignition is high. This hillside and subsequent fuels are constantly fanned by river influenced winds (upstream and downstream) and have the potential to move rapidly; thus, threatening homes. Historically, these areas were likely grazed, but this practice has been greatly reduced.

New homes are being built on the ridges surrounding Asotin. These homes are placed among the rangeland fuels with grasses and forbs intermixed with sagebrush. Very little fire protection is afforded as they are perched at or near the top of the ridges with often substandard access. Annual vegetation management is warranted in the areas to reduce the potential risk to life and property.

4.7.3.2.2 Ingress-Egress

Access in and out of Asotin is provided by State Highway 129 running northwest-southeast, and by the Snake River Road beginning in Asotin and paralleling the river south to Rogersburg. Many smaller, graveled access routes tie into these two-lane roads. State Highway 129 from Asotin to Anatone begins by climbing a steep grade with numerous switchbacks in order to gain elevation to the upper plateau from the Snake River. This grade is the primary access route for travel between Asotin and Anatone. The Asotin Creek Road provides access to many homes, farms, and ranches in the Asotin Creek drainage as well as the Cloverland and Meyer Ridge areas.

4.7.3.2.3 Infrastructure

The Asotin Water Department maintains two community water supply points (Well #1 and #2). One is located along the edge of the Snake River, the other is at the intersection of Meador Street and Cleveland Street. Power poles along road rights-of-way supply power to individual homes and businesses. Many poles are older with lines passing through ornamental trees.

New home construction, especially in the southeast corner of the city, is being built with underground power supplies and “firewise” construction principals. Where practiced and maintain, these techniques will serve to enhance the ability of these homes to survive the rangeland fires common in these areas.

4.7.3.2.4 Fire Protection

The city of Asotin is protected by the Asotin Fire Department and has a good coverage of fire hydrants for homes in the city. The Asotin County Fire District #1 provides structural and wildland fire protection in the city and rural areas surrounding the city through an auto-aid agreement.

All of the private lands within the fire protection district have joint jurisdiction with the Washington Department of Natural Resources (DNR). Under joint jurisdiction, it is recognized that the fire district has primary responsibility for structure protection and the DNR will have primary responsibility for wildland fire suppression on state and private lands. The DNR provides wildfire protection during the fire season between April and October with varying degrees of available resources in the early spring and late autumn months. The U.S. Forest Service responds to all wildland fires on their jurisdiction and may also respond to wildland fires on private or state lands based on a closest forces, reciprocal agreement with the DNR when resources are available.

4.7.3.2.5 Potential Mitigation Activities

Asotin possesses many homes densely clustered into the city limits with many new homes being built along the perimeter of the city to the south. This change in housing density poses some challenges for the community's wildfire protection. In terms fuels management for the established homes in Asotin, much of the focus should be on managing the grassland and sagebrush fuels along the southern edge of the city. A combination of field burning when conditions merit with long-term livestock grazing, would effectively lessen the range fire threat for those adjacent homes. Most of the mile long southern border of Asotin could effectively be treated in this manner.

The new construction, much of which is scattered beyond the southern edge of Asotin, warrants individual home site protection. In these cases, a combination of defensible space around the immediate 150 feet of the structure, coupled with access improvements, and firewise building material selection, will improve home's survivability.

4.7.4 Towns

4.7.4.1 Anatone

Anatone is located along State Highway 129 south of Asotin. Anatone is on the upper plateau of Asotin County near 3,600 foot elevation. North and east of Anatone, the landscape is characterized by farm fields and scattered houses. To the south and west the vegetation abruptly changes from agriculture and rangelands to woodlands. These woodlands are a combination of ponderosa pine, grand fir, and Douglas-fir trees with an understory of grasses, forbs, and even sagebrush. South of Anatone, the topography changes dramatically as it drops rapidly into the Grande Ronde River drainage where rangeland is intermixed with woodlands. National forestlands are found due west of Anatone.

Anatone is in an intermix WUI condition because of the concentrated number of homes, businesses, and cabins within the townsite and to the southwest. This "island" of population is likely Asotin County's most significant wildfire risk.

The combination of the vegetative transition from rangeland to woodland and the topographic transformation from high elevation plateau to breaklands leading to the Grande Ronde River

presents a potentially problematic situation. This area should be a high priority to receive targeted mitigation efforts.

4.7.4.1.1 Fuels Assessment

The risk from structure loss due to a wildfire entering the Anatone area is high. The transition from rangeland fuels to woodland fuels poses some significant challenges. Agriculture and range fires have the potential to spread rapidly through the grasses, forbs, and sagebrush. Woodland and forestland fires tend to burn more slowly, but with higher intensities.

The topography of this area are equally challenging as winds from the Grande Ronde River canyon can blow uphill and through “chimneys” such as Rattlesnake Creek to fan fast paced fires. In contrast, the upper plateau hosts winds from the north and east which can be high and sustained. These wind patterns intersect in the Anatone area and can cause unique fire weather challenges.

This area possesses challenges from all types of wildfires and weather patterns. Further, recreational use is increasing due to easy access Fields Spring State Park and the National Forest. Wildfire ignitions can come from nature in the form of lightning strikes and from human sources. Although this area has witnessed several fires in the recent past, all of these have been contained as reasonably small fires.

4.7.4.1.2 Ingress-Egress

Access in and out of Anatone is provided by State Highway 129 running northeast-southwest. To the north, this two-lane road provides access to Asotin and then Clarkston. It passes through relatively flat terrain dominated by agricultural fields until it reaches a switchback signaling the drop into the Snake River drainage. From Anatone heading south, State Highway 129 passes over Rattlesnake Pass and begins its drop into the Grande Ronde River canyon. A steep, narrow, switchback dominated two-lane road leading to a river crossing before climbing again on the Oregon side.

Slightly south of Anatone, Montgomery Road provides an alternative access to the Snake River. This one lane gravel road drops into Couse Creek for a rapid decent terminating near Grahams Landing on the Snake River. While this is not a regional access point, many of the local population use this route at least periodically. An additional graveled access route is located on Weissenfels Ridge terminating at Tenmile Creek along the Snake River.

A few scattered access routes are provided to the northwest of Anatone through farm and ranch roads. Some of these roads also provide forest access and eventually even link into roads which access Pomeroy or even Dayton. However, these access routes are seasonal and require an intimate knowledge of open paths.

4.7.4.1.3 Infrastructure

Public water supplies in Anatone are extremely limited. The Asotin County Road Department shop and the Post Office each maintain a well within the townsite.

West of town center, the Blue Mountain Homesites subdivision maintains a transient non-community pair of wells for the homes in that area. In a similar system, the Country Living Court has a single well for resident’s use.

Fields Spring State Park also manages two sites for public water supplies, a well and a spring. Both are located within the campground and are transient non-community water supplies.

The remainder of the homes in the area are connected to single family wells gaining their water supply from the local aquifer. There are also numerous privately owned ponds that could be used for suppression (drafting and possibly dipping) during a wildfire.

Power supplies to individual homes and businesses are carried through overhead power lines. The wooden poles supporting this network are in all stages of repair from new to very aged.

4.7.4.1.4 Fire Protection

Anatone has no structural or wildland fire protection from a city or rural fire department. Local fire protection efforts consist of homeowners, farmers, and ranchers with wildfire fighting equipment and tools.

The U.S. Forest Service and Washington DNR respond to all wildland fires within their jurisdictions.

4.7.4.1.5 Potential Mitigation Activities

The Anatone town center is not a primary concern for wildfire protection efforts in the immediate area. The farming practices, access, and nature of the town center preclude the need for targeted mitigation efforts. ponds

Fields Spring State Park does justify a level of wildfire fuels mitigation efforts in order to increase the survivability of the site while providing a reasonable chance for firefighters to succeed in extinguishing ignitions. This state park possesses many forestland type fuels which are combined with single lane access routes. The forest health in the park is good to poor with many trees showing infections from beetle attacks and general decline in forest health. While many people do not favor thinning within parks, that practice would allow park managers to remove the dead and dying trees in favor of increasing overall forest health and thus, its resistance to wildfire control. Structural defensibility techniques would also be beneficial and could be accomplished without compromising the aesthetic value of the park.

The scattered homes and cabins from Fields Spring State Park north to the Blue Mountain Homesites and Country Living Court (and all the structures in between) are in quite a different category of wildfire risk. These homes are located along single or multi-family access routes. Most of those routes are winding dirt roads which pass through scattered woodlands and rangelands. Many structures are located within a forestland fuels complex or at the edge of woodlands and agricultural/rangeland. Fuels are a continuous intermingling of grasses, forbs, trees, and shrubs. A wildfire ignited in this area, and fanned by the crosswinds may be difficult to control, particular when coupled with dry fuel moistures.

For this area, the mitigation activities must begin with treating the areas immediately adjacent to the homes. Within 200 feet of each structure, removal of surface fuels and other risk factors will significantly improve structure defensibility. The relatively wide spacing of the trees in this area reduces the chance for a fire to be carried in the crowns. While individual tree torching may be possible, it is improbable that crown fires would be sustainable.

Thus, it is the recommendation of this section of the Community Wildfire Protection Plan that targeted treatments around the structures in this area be evaluated and implemented. This set of treatments would incorporate both structure defensible space in conjunction with access improvements (fuel mitigation around roads), and linking access with escape route markers in an emergency.

4.7.4.2 Rogersburg

Rogersburg is located along the Snake River upstream from Clarkston and Asotin at the confluence with the Grande Ronde River. The Rogersburg town site is a small area of private land surrounded by Bureau of Land Management and Washington State Department of Fish and Wildlife holdings. Another group of structures are located west of Rogersburg along the Grande Ronde River. The Rogersburg area is accessed by the Snake River Road via Asotin. A southerly access route is provided by the Joseph Creek Road from Oregon.

The entire Rogersburg area is characterized by the Snake River breaks vegetation type with one side bounded by the Snake River and steep canyon walls in all other directions.

While most structures on the Washington side of the river are located within the town of Rogersburg and up the Grande Ronde River, another group of structures are located on the opposite bank of the Snake River in Nez Perce County, Idaho.

4.7.4.2.1 Fuels Assessment

Rogersburg is characterized by river breaks rangeland vegetation. While a small amount of agricultural lands are present (mainly hay ground), these do not characterize the fuel complex of the area. The breaklands consist of a combination of arid vegetation, early curing, and presence of grasses and sagebrush. Wildfires in this fuel type would tend to spread rapidly uphill with low to moderate intensities except where jackpots of fuel are found such as seen along streams or local drainage corridors.

The risk from structure loss due to a wildfire entering Rogersburg is moderate. While the community is located at the base of the slope and have good access to water, they lack a fire protection organization; thus, even a small or creeping fire could reach the community before suppression help arrives.

4.7.4.2.2 Ingress-Egress

The Rogersburg area is accessed by the Snake River Road via Asotin. A southerly access route is provided by the Joseph Creek Road via Oregon. There are only a couple of local access roads accessing the “upper country” from Rogersburg. One is from Grahams Landing to Anatone via the Montgomery Ridge Road. However, this access point is a significant distance from Rogersburg on the way to Asotin.

4.7.4.2.3 Infrastructure

Public water supplies in Rogersburg are limited. Within the town site, the Rogersburg Addition maintains a public water well system. To the west, the Grande Ronde Ranches community also maintains a transient non-community water well.

Two additional water wells are located downstream along the Snake River. The Dalosto Water System is located above the structures just north of Rogersburg and is a permanent water system. The Beamer’s Landing water well is a transient non-community water system fed by a well. The remainder of the homes in the area are connected to single family wells gaining their water supply from the local aquifer.

Power supplies to individual homes and businesses are carried through overhead power lines. The wooden poles supporting this network are in all stages of repair from new to very aged.

4.7.4.2.4 Fire Protection

Rogersburg has no structural or wildland fire protection from a city or rural fire department. Local fire protection efforts consist of homeowners, farmers, and ranchers with wildfire fighting equipment and tools.

The U.S. Forest Service and Washington DNR respond to all wildland fires within their jurisdictions.

4.7.4.2.5 Potential Mitigation Activities

The Rogersburg town center and the surrounding structures are not a primary concern for wildfire protection efforts in the immediate area. The farming practices, access, and nature of these structures preclude the need for targeted mitigation efforts. Nevertheless, the inclusion of this area into some kind of fire protection service would greatly lessen the risk of wildfire to residents.

Scattered ranch houses and other structures around Rogersburg face the continuing problem of maintaining vegetation in such a way so as to limit the potential for wildfire. For the most part, these structures have been maintained adequately in the past and as long as they continue this trend, they will be defensible in the future.

4.7.5 Communities in Rangeland / Agricultural Environments

Virtually all of the rangeland/agricultural communities and named places in Asotin County face similar challenges related to wildfire control and potential opportunities for fuels mitigation efforts.

Most of the homeowners in the more rural population clusters are challenged by limited access, fine grassy or shrub fuels, and limited structural fire protection resources. Nevertheless, one advantage of living in an agricultural community is that the fuels are easily modified by readily accessible farm implements.

For the most part, natural fuels management in these areas is provided by the presence of agricultural farming and livestock grazing. Where these activities are practiced, the wildfire risk is low. In certain areas, lands are placed in Conservation Reserve Program (CRP) and not farmed or grazed. These fields can, over time, accumulate high concentrations of wildland fuels which can pose a problem for control if ignited.

Structural firefighting resources in the county are limited to the Asotin County Fire District #1 boundaries on the north end of the county. Many farms in the area have basic firefighting equipment, which are used as needed to quickly respond to scattered ignitions from a variety of sources.

The majority of the homes and businesses in Asotin County are considered to be in the Rural WUI condition characterized by scattered homes or small communities with miles between these clusters. Often the most effective wildfire mitigation activity is to develop and maintain a defensible space of at least 200 feet around structures where ignitable vegetation is managed or kept green (watering). Very remote farms and dwellings also benefit from keeping rudimentary suppression equipment as needed to head off wildfire ignitions.

4.7.6 Communities in Woodland / Forest Environments

Virtually all of the forestland communities and named places in Asotin County face similar challenges related to wildfire control and potential opportunities for fuels mitigation efforts.

Most of the homeowners in the rural, forested areas face the challenge of limited access, fine grassy or shrub fuels in combination with heavy forest fuels, and limited structural fire protection resources. Many homes upslope from the Grande Ronde River drainage, the Mountain View area, and the eastern side of Big Butte are characteristic of this condition. From a structure density standpoint, all of the structures in these areas are located in the Rural WUI Condition meaning there are scattered homes or clusters of homes with miles between the clusters.

Structural firefighting resources for these areas in the county are limited. Some homeowners or state agencies (parks) in the area have basic firefighting equipment, which is used as needed to respond to scattered ignitions. Additional wildfire resources are provided in some areas by the DNR and U.S. Forest Service.

In these areas, often the most effective wildfire mitigation activity is to develop and maintain a home defensibility space of at least 200 feet around structures. Access is also of particular concern as many driveways are narrow, steep, and have low weight tolerances. Targeted mitigation efforts must begin with road widening, fuels management along the roads, and homesite mitigation efforts to reduce the exposure of individual homes due to flammable roofing material, siding, or wooden decks. It is notable that many of the homes in the area have metal roofing and are actively managing fuels around their structures.

The issue of wildfire risk in these communities is very significant to the residents as recent wildfire events have demonstrated. Turning this awareness into action will be critical in the years to come if residents of the region are going to make a lasting change to their risk exposure to wildfire. Local efforts to provide firefighting resources, while well-intentioned, is best applied to receiving wildfire fighting training (Red Card and Blue Card), maintaining basic wildfire fighting resources in each community (200 gallon water tenders and hand tools), and working with local homeowners to mitigate fuels and improve access.

4.8 Firefighting Resources and Capabilities

Fire district personnel are often the first responders during emergencies. In addition to structure fire protection, they are called on during wildland fires, floods, landslides, and other events. There are many individuals in Asotin County serving fire protection departments in various capacities. The following is a summary of the departments and their resources. A map of the fire protection organization's coverage areas is presented in Appendix I

The firefighting resources and capabilities information provided in this section is a summary of information provided by the fire chiefs or representatives of the wildland firefighting agencies listed. Each organization completed a survey with written responses. Their answers to a variety of questions are summarized here. These synopses indicate their perceptions and information summaries.

4.8.1 State Mobilization

State mobilization of additional fire suppression resources is available to areas in Asotin County currently protected by a fire department or district. The fire district chief or his designee is the only individual who can call for wildland fire mobilization. State mobilization of additional resources has been used at least twice in Asotin County; however, this type of mobilization is only available once the local fire service organizations have depleted all other resources.

4.8.2 Asotin County Fire District #1

Chief: Noel Hardin
Telephone: 509-758-5181

Address: 2314 Appleside Blvd.
Clarkston, WA 99403

District Summary: Asotin County Fire District # 1 is primarily a volunteer department that protects over 12,500 residents in the unincorporated area of Clarkston, Washington. The District covers just over 105 square miles outside of the 1-square mile city of Clarkston, Washington. This area includes the Highway 12 corridor and the Asotin Creek and George Creek areas. ACFD # 1 has 32 active volunteers, a full time chief and a full time assistant chief operating out of 1 station in the Clarkston Heights. ACFD # 1 works closely with the city of Asotin volunteer Fire Department as they help cover a portion of our district around their city. Through an auto-aid agreement ACFD# 1 responds to all fire emergencies within the City of Asotin. ACFD # 1 is an all risk fire Department, but the majority of our calls center around wildland fires and motor vehicle accidents. Because of the large wildland area that our district covers, we are very dependent on our mutual aid partners, which include:; City of Lewiston, Idaho, Potlatch Corporation, City of Clarkston Fire Department, Asotin City Fire Department, Garfield County Fire Dist. # 1, Whitman County Fire Dist. # 14, Pullman City Fire, and Moscow, Idaho City Fire.

Priority Areas:

Residential Growth: Most of the residential area is within a five mile radius of our station in the Clarkston Heights. Within the district we are seeing significant growth south and west of the current residential area. It appears the trend will continue those same directions. As the sub-divisions emerge in these areas, our main concern with the county is access and water supply. It continues to be a battle with Asotin County to push developers to meet at least minimal standards for access. There are some 5-acre subdivisions materializing just outside of the residential area. Water supply and access will too continue to be a challenge for those areas.

Communications: Improving emergency communication in the county has been one of the top priorities with funding. Though it has improved, there are still many areas that have little or no communication. The terrain we deal with continues to limit communication in some areas and research is being done for future hill-top repeaters or equipment to enhance radio signals. The other issue with communication is federally mandated changes in technology. If the federal government mandates digital radio frequencies for public safety most of our current equipment would be obsolete. Funding for upgrades will be an issue.

Burn Permit Regulations: Open burning continues to be a problem countywide. There are burning periods within the residential zones. Two months in the spring and two months fall/winter. Outside of the residential areas there are problems with people burning garbage and such. The county commissioners have implemented countywide burn bans during extreme conditions in the summer and have delayed open burning times depending on weather and fuel conditions and the recommendation of the Fire District. This year we have already experienced controlled burns that turned into wildland fires. The District would support some form of burn permits to help educate the public and help with enforcement of proper burning procedures. Asotin County should ultimately consider complete a burn ban within the residential areas.

Other: A major liability problem in the Fire District is the use of civilian volunteers and landowners fighting fires. This has caused some friction between landowners, volunteers and the Fire District. The priority issue is who is liable for these people when they get injured. If the Fire District does not direct them, the Fire District is not liable; however, there have been numerous cases where civilian volunteers or landowners have compromised personnel safety and caused more damage during a fire event. The

bottom line on any fire is: Who is ultimately responsible? The Fire District's stand is that they are not going to be responsible for untrained people jeopardizing life and property. Although many landowners have years of experience fighting wildland fires on their property and their neighbor's property, the lack of fire-ground communication has been a key factor in fire operations and close calls. There is also the fire experienced landowner who does not think that a government fire agency can or properly extinguish fires. The lack of understanding of mandated firefighting rules and regulations that fire agencies have to follow can also contribute to that attitude.

Effective Mitigation Strategies: Asotin County Fire District # 1 continues to try and educate the public in protecting their own homes. Though we are not a "Firewise" community, it is that type of message that we are sending to the residents.

We are seeing many high value homes being built in the urban interface areas. The Fire District continues to try and work with Asotin County on water and access issues. This has been a point of contention between the Fire District and the Asotin County. Many times the county has opted to not take the advice of the Fire District and limit fire department access into some sub-divisions. The Fire District bases requirements on local county codes and well as the Washington State adopted International Fire Code. The Fire District continues to ask for at least minimums requirements as stated in the fire code, but that is not what is always approved by the county commission. Strict building and fire codes need to be addressed and enforced county-wide.

Education and Training: Firefighter training is a high priority at ACFD#1. The firefighters train 100 hours per year in all risk categories. The priority in training centers on wildland fires, structure fires and motor vehicle accidents.

Public education is also key. The firefighters attend many public events throughout the year and the goal is to give a fire safe message with any public contact.

We also focus on safety education for local students kindergarten through 6th grade. During fire prevention week the Fire District holds an open house with the priority of helping educate the public on all safety issues within the District and life safety issues within their own homes.

Cooperative Agreements: Our local mutual aid partners include: City of Lewiston, Idaho, Potlatch Corporation, City of Clarkston Fire Department, Asotin City Fire Department, Garfield County Fire Dist. # 1, Whitman County Fire Dist. # 14, Pullman City Fire, and Moscow, Idaho City Fire. We also have cooperative agreements with Washington State DNR and Umatilla National Forest Service. We have great working relationships with all of the above agencies and depend upon them for the success of the district.

Current Resources:

Station #1:

Table 4.11. Current Equipment List for the Asotin County Fire District #1.

Year	Make	Model	Tank Capacity	Pump Capacity
2004	Pierce	CAFS Engine/ all wheel	750 Gallons	1250 GPM
1994	Pierce	Structure Engine	1000 Gallons	1250 GPM
1991	Pierce	Structure Engine	1000 Gallons	1250 GPM
2005	Pierce/Hawk	Wildland 6X6 CAFS Tender	2500 Gallons	500 GPM
1996	Central States	Tender	3000 Gallons	750 GPM
2000	Ford 550 4x4	Type 6	300 Gallons	150 GPM

Table 4.11. Current Equipment List for the Asotin County Fire District #1.

Year	Make	Model	Tank Capacity	Pump Capacity
1989	Ford 350 4x4	Type 6	300 Gallons	150 GPM
1986	Ford 350 4x4	Type 6	300 Gallons	150 GPM
1991	Ford 350	Type 6	200 Gallons	250 GPM
2003	Polaris	ATV 6x6	75 Gallons	
2003	Polaris	ATV 6X6	75 Gallons	
1991	Weldcraft	Fire Boat 21 ft	Unlimited	900 GPM
1962	Jeep 4X4		70 gallons	

The Fire District board is committed to providing up to date tools and apparatus for the fire district personnel. The fire district has been on the leading edge of technology available for many firefighting needs. The use of CAFS has proven effective in many applications from structure to wildland.

Future Considerations: The fire district will continue to look at the needs of the people within the district. The growth into the urban interface continues to concern the District and they will continue to encourage the Asotin County to provide for safety in the new neighborhoods.

Needs: More public education. There is an attitude that "Grass Fires" are not a real threat. Education around the urban interface in Clarkston and education of public officials will be key to the Fire District success in a proactive approach. Working cooperatively with the Asotin County Commissioners in future development of neighborhoods will be imperative to the Fire District success.

As the population within the district boundary grows, and especially if more land is annexed, a new and/or updated station will be needed to house equipment, personnel, and provide room for training.

4.8.3 City of Clarkston Fire Department

Chief: Steven M. Cooper
Telephone: 509-758-8681
Email: scooper@clarkston.com
Address: 820 5th Street
Clarkston, WA 99403

District Summary: Clarkston Fire Department (CFD) is a combination career/volunteer fire department with 10 full-time EMT/firefighters supporting 24 volunteer EMT/firefighters in the delivery of emergency and non-emergency services within our community/county. This organization provides fire suppression, fire code enforcement and public education for about 7,300 residents of the City of Clarkston and thousands of additional nonresident visitors who shop, work, receive medical care and strive to complete their education within the business districts, medical facilities and educational centers in our community. The same staff provides first response Emergency Medical Services (EMS) to about 20,000 residents and additional nonresident visitors to Asotin, Clarkston and the more heavily populated areas of the County.

The US Census Bureau reports there were 3,414 housing units available in Clarkston at the time the 2000 census was completed. Some of this housing stock is aged and in poorly maintained condition. Some would not satisfy current building code requirements. Appropriate egress windows are not present in all sleeping areas within these residential units.

CFD values the mutual aid agreements we maintain with Asotin Fire Department, Asotin County Fire District 1, Lewiston Fire Department, Moscow and Moscow Rural Fire Departments, Potlatch Corporation Fire Department, Pullman Fire Department and Whitman County Fire District 14. Cooperative efforts of this group make joint training opportunities available that individual departments might not be able to provide otherwise.

Priority Areas:

Residential Growth: Residential growth has been pretty slow within Clarkston. Multi-unit construction will probably constitute much of the residential growth in the near future. Without annexation there is not much open space for residential development within the City.

Communications: Radio communication within the City of Clarkston is very good. The primary dispatch channel and tactical channels satisfy today's needs.

Improving communication capabilities of emergency responders has been a priority in Asotin County over the past few years. Even though repeaters have been added above Asotin and on the Stout Ranch on the north side of the Snake River near Chief Timothy areas, poor or no radio communications continues to poise challenges for responders. Coordination of these ongoing efforts must include the Asotin County Emergency Manager. Additional effort (expenditures) is required to address these shortfalls.

Burn Permit Regulations: Open burning is banned within the City of Clarkston with exceptions for cooking and ceremonial fires. There is no permit process in place.

Other: Landscaping choices along open spaces, especially along the bluffs above the greenbelt along the Snake River includes highly flammable vegetation. Some of this growth is adjacent or under wood decks and eves.

Shake roofs are still present within our community, some along the area described in the preceding paragraph.

A program supporting a public education effort with these residents would be beneficial.

Education and Training: Clarkston Fire Department is heavily involved in fire safety education through public schools. Firefighter visits during fire prevention week assures elementary school students (K through 3) have access to focused training and receives material to take home to their parents. All second grade students in Clarkston and many preschool children and their parents receive public education training during visits to the fire station.

CFD suggests implementation of a coordinated countywide public education program which supports presentations to interested groups who recognize that their property management choices decide their fire safety. Distribution of material through print and electronic media can introduce the same safety concepts to a wider audience. A program should enable property owners to make good landscaping and construction material choices while encouraging creation of defensible spaces around their buildings.

Maintenance of working smoke detectors is important to surviving a fire – especially when residents are sleeping. Continuing to place an emphasis on smoke detectors in public education outreaches is very important.

Developing and maintaining firefighting skills is an ongoing process. Cooperative training efforts help address the introduction of new concepts and incident command skills, however, task level skills are best learned in a setting where reasonable student to instructor ratios are maintained for "hands on learning". Initial training must be followed with maintenance training. High risk, low frequency incidents require more focused training/preparation then low risk, high frequency

incidents because responding to similar incidents frequently allows for “on the job” skills review then correction after an incident.

Cooperative Agreements: Clarkston Fire Department maintains mutual aid agreements with Asotin Fire Department, Asotin County Fire Protection District #1, Lewiston Fire Department, Moscow Fire Department, Moscow Rural Fire District, Potlatch Corporation Fire Department, Pullman Fire Department and Whitman County Fire District #14.

Current Resources:

Station #1:

Table 4.12. Current Equipment List for the City of Clarkston Fire Department.

Year	Make	Model	Tank Capacity	Pump Capacity
2001	Pierce	Saber	750 gallons	1,500 gallons per minute
1992	Pierce	Lance	750 gallons	1,500 gallons per minute
1990	Ford	F350 Utility Truck	150 gallons	150 gallons per minute
2003	Ford	EMS Rescue Truck	No water tank	No pump capacity
2002	Ford	EMS Rescue Truck	No water tank	No pump capacity

Future Considerations: Maintaining a vital volunteer firefighter force is important to Clarkston Fire Department. NFPA standards identify tasks requiring 15 firefighters to be on scene at a working structure fire, without active and skilled volunteers we could not satisfy that NFPA standard. Retention of our current firefighters (both volunteer and career) and recruitment of qualified candidates will continue to be important efforts for us.

Planning and funding vehicle replacement is very important, especially so because we have such few fire engines. While new technology increases the cost of replacing fire engines the value of foam systems, hydraulic ladder lifts, backing alarms, opticom traffic signal controls and the like enhances the capabilities of fire suppression efforts and safety of responders.

During periods of high call volume, careful coordination of multi-agency resources must occur at the emergency incident level.

Needs: Clarkston Fire Department would benefit from relocation of our station to a more centralized location. An updated building should include better training spaces (for both didactic and hands-on training), improved equipment maintenance workbenches, dormitory space for career and volunteer staffing, better records storage area, ample parking for responding firefighters and added vehicle storage inside temperature controlled apparatus bays.

Grants that could assist in replacement of fire engines would be welcomed. The Utility Truck includes wildland firefighting equipment that will need replacement as time passes – our Department focus is not wildland because there is little open space within the City of Clarkston so help with this cost is important to maintaining this asset.

Staffing is always an important issue, probably not just for our Department but for those that we cooperate with as well. Retention of our current experienced personnel, and recruitment of new personnel when necessary, needs to remain an important focus of ours.

Continued cooperation among emergency response agencies strengthens our response capabilities within the areas we serve. Fire agencies need to maintain the mutual aid agreements and cooperative efforts because increasing numbers of calls and changes in the urban intermix will cause increased dependency upon these agreements unless departments add staffing in their organizations.

Development of reliable fire response capabilities in areas outside those areas already served by Asotin and Clarkston Fire Departments or Asotin County Fire District #1 would protect the buildings, cropland, rangeland and forested areas where no fire protection exists today.

4.8.4 City of Asotin Fire Department

Chief: Dave Weissenfels
Telephone: 509-243-4250 (home) or 509-243-2020 (work)
e-Mail: dweissenfels@co.asotin.wa.us
Address: PO Box 517 Asotin, Washington 99402

District Summary: The department covers approximately 1 square mile, which is roughly the city limits of Asotin.

Current Resources:

Table 4.13. Current Equipment List for the City of Asotin Fire Department.

Year	Make	Model	Tank Capacity (gal)	Pump Capacity (GMP)
1986	GMC	1 ton Crew Brush Truck	300	250
1972	Ford	1 ton Brush Truck	300	250
1991	GMC	Structural Pumper	750	1250
1972	Military	6x6 Water Tender	1200	250

Needs: The department needs a newer brush truck and a command vehicle. The department is also looking for funding to build a new 6 bay station to house equipment.

4.9 Wildland Fire Districts

4.9.1 Fields Spring State Park

Park Manager: Shaun Bristol
Telephone: 509-256-3332
e-Mail: Fields.Spring@parks.wa.gov
Address: PO Box 37 Anatone, Washington 99401

District Summary: State Park personnel are responsible for wildland fire suppression within park boundaries. They may assist with wildland fire suppression if requested by other agencies.

Priority Areas:

Residential Growth: There are 34 structures within the park.

Communication Sites: TDS Telecom, ACSO repeater, WSP repeater, DNR repeater, and Bennett Lumber Co. repeater.

Effective Mitigation Strategies: The Park has ongoing defensible space and shaded fuel break improvements.

Education and Training: Park staff is red carded ICS qualified

Cooperative Agreements: The Park has agreements with the US Forest Service and Washington DNR.

Current Resources:

Table 4.14. Current Equipment List for Fields Spring State Park.			
Type	**Model**	**Tank Capacity**	**Pump Capacity**
Trailer	Wildfire Pacific	300 gal	5hp
Slip On	Wildfire Pacific	200 gal	5 hp

Future Considerations: The Park has two Type 6 engines available within one day. The park also has access to two satellite phones and hand tools for 20 people.

4.9.2 Washington Department of Natural Resources

District Manger: Rex Reed, 509.925.0968, rex.reed@dnr.wa.gov
East Klickitat FMO: Wyatt Layton, 509.773.5588, wyatt.layton@dnr.wa.gov
East Klickitat AFMO: Dan Lennon, 509.773.5588, dan.lennon@dnr.wa.gov

Equipment: 2- type 6 engines with 3 fire fighters each

District Summary: The Blue Mountains are part of the Klickitat District Fire Management area. This ranges through out the counties of the southern tier in the State of Washington including Klickitat, Benton, Walla Walla, Columbia, Garfield, and Asotin counties. Fire resources are spread throughout this area due to normal workloads and traditional fire risk occurrence. In the case of additional needs, the DNR has the flexibility to move additional resources into the area. These can be regional resources as well as outside resources brought in for short periods of time.

DNR and USFS work jointly to supply adequate resources for prevention and suppression activities as budgetary limitations dictate.

Residential Growth: Residential growth affects the firefighting capabilities of the DNR from the standpoint of those who purchase properties outside of fire districts and then assume that we automatically protect them. This is not the case. Unless the DNR is receiving forest patrol assessments, the DNR does not assist or take on fire suppression activities. Over time this activity has become more and more scrutinized.

The DNR also has mutual aid agreements with the fire districts to assist them in areas where they have jurisdictional control.

Communications: Communications for the area are handled through the statewide radio system which does have weak areas in the Blue Mountains. Most of the administrative communications is handled through use of the Forest Service Dispatch center in Pendleton; however, the use of state channels communications can be done with CWICC in Wenatchee.

Firefighting Vehicles: Currently the DNR has two type 6 engines assigned to the three Blue Mountain Counties. The overhead assigned to the Blue Mountains come from the DNR's Klickitat Fire Management team, but most of the day to day administration is done via an agreement with the Pomeroy Ranger District.

When fire risks reach a certain level or risk due to weather appear increases, the DNR has the flexibility to move additional resources into the area.

Burn Permit Regulations: On private lands the Washington State Burning Rules are administered unless the counties override them.

Effective Mitigation Strategies: The CWPP process is one of the best forms of mitigation strategies used to educate the communities on risks and assist them in the formulation of goals

and objectives suited for their specific area. The DNR can then assist in finding funding sources for mitigation projects.

Education and Training: Education and training is an ongoing process. DNR supplies community support through use of education opportunities such as FIREWISE and also community level assistance as was demonstrated during the School and Columbia Complex incidents. We are also able to supply one-on-one landowner discussions through Stewardship planning as well as forest practices assistance. Cooperation with local agency offices provides for a boarder educational opportunity.

Current Resources: While the DNR maintains two type 6 engines from June 1 –October 1, the resources assigned to the area can change due to fire and weather conditions with additional resources being staged in the area to assist in the suppression needs. This can include additional department overhead personnel, crews, and engines as well as helicopters.

Future Considerations: Currently the regional staff is assessing the potential need of additional fire resources staffed in the area. This is an annual process that provides the region with the best distribution of resources based on the limitations of biannual legislative funding.

Needs: There are areas in Asotin as well as Garfield and Columbia Counties that are not under the protection of a fire district. Many of these areas do not have any form of formal protection through any fire suppression entity. As stated before, the Department's legislated responsibility lies with protection of unimproved forested lands as well as assisting other agencies and local fire districts.

The areas of the counties which are not protected are commonly known as "no-man's land". As with all other fire suppression entities DNR seems to be expected to respond to these fires. In most cases, the Department works cooperatively with other fire suppression agencies to keep all fires small, but there is no assurance that any entity will respond to those "no man's land" incidents if there are no threats to protected lands or if the Department is involved a multiple fire start situation.

The creates a situation where there is a need for the local residents to recognize that they do not have fire protection and that they need to look at their options as to what they can do to provide themselves with adequate protection.

4.9.3 USDA Forest Service

District Summary: The Pomeroy Ranger District and parts of the Walla Walla Ranger District of the Umatilla National Forest extend into portions of Asotin, Columbia, and Garfield Counties. Each district provides for and manages wildland firefighting resources that are available for not only fire on the local district, but anywhere within the broader interagency dispatching system. Each district fire organization is managed by a district Fire Management Officer and a staff of assistants and suppression leaders. The districts are each funded to provide suppression resources from June 1 through October 15.

The districts occupy the northern portion of the Blue Mountains. "The Blues" are popular recreation and hunting areas known for their plateau-like ridges and deep canyons. Surrounded by unforested farmlands, the forested elevations of the Blue Mountains exhibit vegetation patterns typical of fire regimes of forests east of the Cascade Range. Seasonal lightning and dry summer weather sets up conditions for wildland fires.

Residential Growth: Private properties in forested areas of the Blue Mountains are in high demand. What was once deemed a get-away spot for a little hunting cabin is now being developed for year-round residences. Residential and recreational improvements are growing

in numbers around the national forest boundary, particularly on the west side of the Blue Mountains in Columbia and Walla Walla Counties. Similar development is occurring in Garfield and Asotin Counties, but somewhat delayed since those areas are farther from population centers. Residential growth is a concern since wildland fuels are continuous with the national forest and provide a fire spread continuum across the landscape.

Communications: The Umatilla National Forest uses a network of FM radio repeaters for communications with field personnel. Each district office and the Pendleton Interagency Communications Center (PICC) have base station radios that can use the forest service repeaters as well as two DNR repeaters.

Overall, the radio communications system is weak. There are many dead spots in the deep canyons and the links between the repeaters, district offices, and PICC are subject to noise and interruptions. Poor radio communications with field personnel can pose a safety hazard for employees and the public when emergencies cannot be accommodated.

Burn Permit Regulations: The Umatilla National Forest does not issue burn permits. It has no jurisdiction over any other property than that under federal ownership within the Umatilla National Forest.

The Umatilla National Forest does permit recreational campfires during periods of the year when it is safe to do so. It also offers safe sites for campfires in developed campgrounds.

Effective Mitigation Strategies: Forest fuel types are typically overstocked and vulnerable to catastrophic fires. The districts each utilize combinations of prescribed fire, harvesting, and mechanical thinning to reduce forest fuel quantities back toward historic levels as funding permits. The backlog of hazard fuels is extensive and resource constraints inherent within a multiuse management mandate may not allow hazard fuel reduction in all areas.

Education and Training: The ranger districts each do some localized fire prevention efforts to remind citizens of fire danger and fire closures. Visitations to schools for fire ecology and fire safety messages have been done in the past. There is little to no funding for prevention education.

Cooperative Agreements: The Umatilla National Forest has a Cooperative Fire Suppression Agreement with the fire protection districts in Asotin, Columbia, and Garfield County. These agreements provide an outline of responsibilities of each agency in relation to the other, methods of assisting each other, and an administrative vehicle for payments and reimbursements to occur. These agreements were instituted in the summer of 2007 and are subject to periodic review and updates.

The DNR and the Pomeroy Ranger District of the Umatilla National Forest have an agreement whereby Pomeroy Ranger District Fire Management provides daily oversight of the two DNR engine crews that operate out of Dayton and Clarkston.

The DNR and the Forest Service operate under two broad agreements called the Master Cooperative Fire Protection Agreement and a Local Annual Operating Plan. Each of these agreements spell out a variety of details that guide how each agency works with each other.

Current Resources:

Numbers of Forest Service vehicles and personnel may vary according to variations in annual funding allocations.

Pomeroy Ranger District
71 West Main
Pomeroy, WA 99347

District Ranger: Monte Fujishin, 509-843-4620, mfujishin@fs.fed.us
FMO: Reed Heckly, 509-843-4630, rheckly@fs.fed.us
AFMO: Mike Frederick (Suppression), 509-843-4632, mfrederick01@fs.fed.us
AFMO: Steve Carlson (Fuels), 509-843-4633, sbcarlson@fs.fed.us

- 3 – type 6 engines with 3 firefighters each.
- 1 – type 7 engine with 2 firefighters.
- 2 – Initial attack handcrew module with 5 firefighters.

Walla Walla Ranger District
1415 W Rose
Walla Walla, WA 99362

District Ranger: Mike Rassbach, 509-522-6293, mrassbach@fs.fed.us
FMO: Brett Thomas, 509-522-6284, bthomas@fs.fed.us
AFMO: Dan Eddy (Suppression), 509-522-6281, dceddy@fs.fed.us
AFMO: Mark Johnson (Fuels), 509-522-6283, markjohnson@fs.fed.us

- 1 – type 4 engine with 3 firefighters
- 2 – type 6 engines with 3 firefighters
- 1 - type 7 engine with 2 firefighters
- 1 – Initial attack handcrew module with 5 firefighters.

Future Considerations: Growth in the numbers of rural developments in Asotin County will add to the fire suppression load. As urban dwellers extend their reach for county property, any subdivision of large properties quickly sells for development. The Asotin County areas of Cloverland and Anatone south to the Grand Rhonde seem likely to experience this kind of development pressure. These areas are in the rain shadow of the Blue Mountains and are very hot and dry during the summer having instances of extreme fire danger. The combination of extreme fire danger and additional rural development is a recipe for more fires with greater losses.

Needs:

No-Man's-Land Suppression Coverage

The Forest Service is frequently expected to respond to fires that are off of national forest. Some of these responses are to properties where uncontrolled fire can spread and threaten national forest, but are not covered by any wildland fire suppression jurisdiction. The costs of those kinds of suppression are absorbed by the Forest Service. However, during periods of multiple ignition events, such as during lightning storms, priority must be given to fires that occur on national forest as intended by the funding direction of Congress. The Forest Service cannot be relied upon to always have resources available to respond to fires in areas outside of national forest.

Also, the mandate of DNR fire protection is also restricted to unimproved forest land, or other state lands covered by agreement. The DNR also cannot be relied upon to always have resources available to respond to fires on private property outside of its jurisdiction.

It is incumbent upon landowners without fire protection services to choose other options of fire protection rather than the Forest Service or DNR, either through forming a Fire Protection District, or some other kind of fire organization.

Pond Development

Water for firefighting resources is a critical resource and water shortages are common. The upper elevations of the Pomeroy and Walla Walla Ranger Districts do not have many

opportunities from which to fill engines, tenders, or helicopter buckets. There are opportunities in several areas where topography would allow shallow excavations that would store snowmelt or drainage from springs. Excavation would involve dozer or excavator activity to hollow out a basin, lining it with clay soil or bentonite, making a vehicle ramp for access, and some revegetation around the margins.

Some strategic areas for pond developments are:

- Little Butte
- Hogback Ridge
- Park Ridge
- Pinkhorn Butte
- Mud Springs / Cape Horn
- Malony Mountain
- Eckler Mountain
- Turkey Tail
- Chase Mountain

Some sites to improve are:

- Kelly Camp
- Lewis Creek
- Hardy Ridge Pond
- Clearwater Pond

Small Diameter Timber Utilization

Much of the hazard fuels that need to be removed from the national forest to restore healthy stands are small diameter sizes that are underutilized and uneconomical at this time. Developing local markets for wood fiber and small diameter timber is a broader economic development issue that would enable the cost-effective removal of wood from the national forest that is now deemed unmerchantable.

4.10 Issues Facing Asotin County Fire Protection

4.10.1 Fuels Risk in Populated Areas

Fire departments and districts in Asotin County have expressed concerns that open or vacant lots and pasture ground within the city limits and other heavily populated areas in the unincorporated County have a high risk of ignition due to uncontrolled vegetation. These lots provide a continuous fuel bed, which supports the spread of fires from one structure to another. County and city policies requiring owners to manage the vegetation on these lots during the fire season would significantly reduce the fire risk to the neighborhood. Management programs could include periodic mowing, herbicide applications, or grazing or more permanent solutions such as spreading gravel or paving.

4.10.2 Accessibility

Fire chiefs throughout the County have identified home accessibility issues as a primary concern in some parts of Asotin County. Many homes and driveways have been constructed without regard to access requirements of large emergency vehicles. Lack of accessibility restricts engagement by fire suppression resources. Enforcement of the International Fire Code, regarding road and driveway construction standards for fire apparatus would prevent accessibility issues in new developments.

4.10.3 Fires in Conservation Reserve Program Fields

Since the introduction of the Conservation Reserve Program (CRP) by the federal government, many formerly crop producing fields have been allowed to return to native grasses. Conservation Reserve Program fields are creating a new fire concern all over the west. As thick grasses are allowed to grow naturally year after year, dense mats of dead plant material begin to buildup. Due to the availability of a continuous fuel bed, fires in CRP fields tend to burn very intensely with large flame lengths that often jump roads or other barriers, particularly under the influence of wind. Many landowners and fire personnel are researching allowable management techniques to deal with this increasing problem. Currently, according to the CRP Handbook, all management must be part of the landowner's Conservation Plan of Operations, which includes burning to reduce the fuel loading, and must be in the best interest of the CRP. Under certain circumstances, burning may be used as a process to enhance or renovate the existing vegetative cover for wildlife, especially if it is overgrown and stagnant. Currently, burning can only be conducted under an approved burn plan by qualified personnel. The Farm Services Agency must issue approval and the Department of Ecology must issue a burn permit for any controlled burning on CRP fields. A map of the Conservation Reserve Program acres in Asotin County is included in Appendix I.

4.10.4 Lack of Fire Protection in Rural Areas

Currently, the communities of Anatone, Cloverland, and Rogersburg and homes in the surrounding areas are unprotected by any formal structural or wildland fire protection district. Approximately 48% of the total land base in Asotin County does not protected by a structural or wildland fire suppression organization. The Washington Department of Natural Resources provides wildland fire protection to timbered land to the south and west and on Washington Department of Fish and Wildlife property (contract agreement). Due to the combination of timber and rangelands, a wildfire could potentially spread to residential areas before suppression resources arrived. A local effort to begin the process of researching potential options for gaining some kind of fire protection in this "no man's land" is being spurred on by recent wildfires in the area. These fires have residents and firefighters alike concerned that the lack of response could lead to even small fires growing into a large, destructive wildfire before any organized suppression effort arrives to help. Furthermore, there are safety, communication, and liability issues when residents are left to fend for themselves or when neighboring fire districts or agencies leave their own jurisdiction to aid the effort.

Although the need for an organized fire suppression tactic in currently unprotected areas is obvious, the solution is not easy. Forming a new district or annexing into the existing Asotin County District #1 will require support (both monetary and social) from citizens as well as additional stations, volunteers, training, equipment, etc. Other options may include contracting with an agency or private organization to provide some level of structural and/or wildland fire protection. Equally important will be the formation of mutual aid agreements with other fire departments and agencies.

At this point, it is the responsibility of the landowners in the unprotected region of Asotin County to lead the effort of researching potential options, garnering local support, and presenting the most desirable option to the County Commissioners.

Figure 4.11. Lewiston Tribune article published on June 21, 2007.

Snake River Road fire damage tops $10,000

By Kerri Sandaine

ASOTIN - Snake River Road residents were still putting out hot spots Wednesday after a grass fire burned hundreds of acres about 20 miles south of here.

The fire appears to have started from embers that escaped a burn pit ringed with concrete blocks, according to a report from the Asotin County Sheriff's Office. No charges are going to be filed against the woman who was burning cardboard boxes in the fire pit before the blaze spread.

Sheriff Ken Bancroft said no burn ban was in place and there was no violation of state law. "It's strictly a civil matter, and the insurance companies will have to deal with it," he said. "It's important to take precautions to keep your property as fire-safe as possible, especially when you live outside the fire district."

The blaze destroyed an old cabin, a flatbed trailer, an entire fence line and several large hay bales at Landrum's Snake River Rendevous, said Janet Hightower, manager of the rental cabins near Buffalo Eddy. Damage is estimated at more than $10,000.

Denny Gallagher, a Snake River road resident, said sprinklers were running Wednesday and neighbors have been watching for flare ups. "From what we can see, about 150 to 200 acres have burned," Gallagher said. "We've got some hot spots but nothing major. Hopefully, the wind won't change direction."

Hightower said the entire hillside behind the cabins is black. "We still have bales of hay burning out here. We've got water on it right now. The property next door has some logs burning. We can still see the smoke from where it's burning on the other side of the hill above us."

The fire was fought by people who live in the area and others who were headed to the beach. Asotin County and city of Asotin firefighters responded to the blaze for a life safety issue, but could not fight the fire because it is outside the district. A woman complained of smoke inhalation, but no one had to be transported by Lewiston and Clarkston medics who responded to the scene.

Asotin County Fire District No. 1 covers 105 square miles, which is roughly a sixth of the county. In the past, there hasn't been enough landowner support to create a fire district in the outlying areas.

"The need for some sort of fire protection is there," said Fire Chief Noel Hardin. "The population is growing up river and around Anatone. To do it right, they'd need equipment, volunteers and a building strategically located in Cloverland, Anatone and up river. The bottom line is it costs money, and people get a little skittish when you say the word tax."

Hardin said landowners in areas that don't have fire protection have some options. "They can look at contracting with an agency that would come out there. Long term, they would need to look at forming their own district or annexing into our fire district. Both of those options would take a lot of work, but they are feasible."

Residents would have to get together and the majority would have to be willing to pay for fire service, Hardin said. Someone would have to spearhead the effort to get the ball rolling.

"We feel sorry for the losses they had up there and wish we could have done more," Hardin said. "It's hard to walk away from a fire that's burning, but when we're that far out of our district, it's a liability issue. We are in a no-win situation when we can't provide the service we're trained to do. It makes everyone feel bad."

4.10.5 Firefighting Agency to Landowner Communications

Recent fires in Asotin as well as Garfield and Columbia Counties have repeatedly raised the issue of the lack of communication between wildland firefighting agencies and/or their incident command teams and local residents. Poor communication with residents has led to difficulty with evacuations, law enforcement issues, and a negative sentiment towards firefighter personnel from landowners and residents. Additionally, the inability to convey the suppression plan between firefighting agencies and landowner containment efforts has led to safety issues. For example, lives could be threatened if firefighters light a backburn without being aware of the

presence of a group of landowners in the targeted area. Working out a communication plan with local landowners could improve this situation. Designated meeting locations and landowner representatives to work with firefighters and relay information between groups may be two potential solutions. Furthermore, setting up a reverse 911 system where landowners are automatically notified of a wildfire near their home, would not only allow for a safer, more organized evacuation if necessary, but would also give landowners and organized firefighting agencies more time to develop an action plan involving all parties.

4.10.6 Landowner Equipment Contracting

Many landowners feel that their farming and ranching equipment as well as knowledge of the region should be better capitalized on by the fire management teams. However, fire management teams believe having untrained persons on a fire, particularly without communication equipment, can lead to safety and liability issues. A cohesive initial attack using both landowner and fire service resources could be more smoothly implemented if landowners went through the proper procedures and minimum training courses to contract their services with the federal or state agencies. This would alleviate much of the communication problem and liability issues as well as improve fire agency's ability to make use of local resources.

4.10.7 Access to Private Property During Wildfires

Access to private property during a wildland fire has become a significant issue for both landowners and firefighters as demonstrated during recent fire events in Asotin County as well as other counties throughout the northwest. While many landowners feel they should have unobstructed access to their property during fires to help with the suppression effort as well as extract any belongings, equipment, etc., many firefighting agencies and organizations feel that not restricting access to unsafe areas based on their professional experience would put people in danger and could even be viewed as negligent.

Substitute Senate Bill 5315, which is intended to begin dealing with this issue, has recently (May 2007) been signed by the Governor of Washington. The Bill says that the Washington Association of Sheriffs and Police Chiefs will convene a work group to develop a model policy for sheriffs regarding residents, landowners, and others in lawful possession and control of land during a wildfire. The policy will include guidance on allowing access, *when safe and appropriate*, to residents, landowners, and others during a wildfire to conduct fire prevention or suppression activities and protect or retrieve any property located in their residences. Until the policy is completed, county sheriffs may establish and maintain a registry of persons authorized to access their land during a wildfire. The sheriff may include in the registry persons who demonstrate ownership of agricultural land or forest land and who possess equipment that may be used for fire prevention or suppression activities. Person included in the registry must be allowed access to their property to conduct fire prevention or suppression activities despite the closure of any state highway, county road, or city street. Residents, landowners, and others in lawful possession and control of land are not liable for unintentional injuries or loss suffered by persons entering upon, or passing through, their land. Additionally, federal, state, and local agencies, and their employees are not liable for any action, or failure to act, when facilitating the access described.

4.10.8 Road Signage and Rural Addressing

The ability to quickly locate a physical address is critical in providing services in any type of emergency response. Accurate road signage and rural addressing is fundamental to assure the safety and security of Asotin County residents. Currently, there are numerous areas throughout

the County lacking road signs, rural addresses, or both due to slow replacement, vandalism, or normal wear and tear. Signing and addressing throughout the County needs to be brought up to NFPA code in order to assure visibility and quick location.

4.11 Current Wildfire Mitigation Activities in Asotin County.

4.11.1 Multi-Jurisdictional Mutual Aid Agreements

Currently the cities, towns, fire protection districts, and wildland fire agencies within Asotin County have extensive mutual aid agreements that serve to increase the protection and effectiveness of all Asotin County fire response jurisdictions. Municipal and county fire departments provide mutual aid for each other to the fullest extent possible. The Asotin County Fire District has the opportunity for a suppression agreement with the Washington State Department of Natural Resources. The agreement with the DNR allows for an Asotin County fire district to provide fire protection services to an area within the jurisdiction of the DNR located within the district and for the district to contract with the DNR to assist in fire protection services (on a limited basis) on forest land within the district's jurisdiction. These agreements significantly improve the capabilities and effectiveness of any and all individual fire departments as well as provide assistance to the DNR, F&WS, and USFS wildland fire departments. Not only does this improve the safety of Asotin County residents, structures, infrastructure, and lands, but it also facilitates good interdepartmental working relationships.

Chapter 5

5 Administration & Action Items

Critical to the implementation of this Community Wildfire Protection Plan will be the identification of, and implementation of, an integrated schedule of treatments targeted at achieving a reduction in the number of human caused fires and overall impact of wildland fires on Asotin County. As there are many land management agencies and thousands of private landowners in Asotin County, it is reasonable to expect that differing schedules of adoption will be made and varying degrees of compliance will be observed across all ownerships.

Asotin County encourages the philosophy of instilling disaster resistance in normal day-to-day operations. By implementing plan activities through existing programs and resources, the cost of mitigation is often a small portion of the overall cost of a project's design or program.

The land management agencies in Asotin County, specifically the USDA Forest Service, the State, and the Fish and Wildlife Service, are participants in this planning process and have contributed to its development. Where available, their schedule of land treatments have been considered in this planning process to better facilitate a correlation between their identified planning efforts and the efforts of Asotin County.

All risk assessments were made based on the conditions existing during 2007, thus, the recommendations in this section have been made in light of those conditions. However, the components of risk and the preparedness of the County's resources are not static. It will be necessary to fine-tune this plan's recommendations annually to adjust for changes in the components of risk, population density changes, infrastructure modifications, and other factors.

As part of the policy of Asotin County in relation to this planning document, this entire Community Wildfire Protection Plan should be reviewed annually (from date of adoption) at a special meeting of the planning committee, open to the public and involving all municipalities/jurisdictions, where action items, priorities, budgets, and modifications can be made or confirmed. The Asotin County Emergency Manager (or an official designee of the Asotin County Commissioners) is responsible for the scheduling, publicizing, and leadership of the annual review meeting. During this meeting, participating jurisdictions will report on their respective projects and identify needed changes and updates to the existing plan. Maintenance to the plan should be detailed at this meeting, documented, and attached to the formal plan as an amendment. Re-evaluation of this plan should be made on the 5th anniversary of its acceptance, and every 5-year period following.

5.1 Prioritization of Mitigation Activities

The prioritization process will include a special emphasis on benefit-cost analysis review. The process will reflect that a key component in any funding decision is a determination that the project will provide an equivalent or more in benefits over the life of the project when compared with the costs. Projects will be administered by county and local jurisdictions with overall coordination provided by the County Commissioners and the CWPP planning committee involved in the development of this Plan.

County Commissioners and the elected officials of all jurisdictions will evaluate opportunities and establish their own unique priorities to accomplish mitigation activities where existing funds, staffing, and resources are available and there is community interest in implementing mitigation

measures. If no federal funding is used in these situations, the prioritization process may be less formal. Often the types of projects that the County can afford to do on their own are in relation to improved codes and standards, department planning and preparedness, and education. These types of projects may not meet the traditional project model, selection criteria, and benefit-cost model. The County will consider all pre-disaster mitigation proposals brought before the County Commissioners by department heads, city officials, fire districts and local civic groups.

When federal or state funding is available for hazard mitigation, there are usually requirements that establish a rigorous benefit-cost analysis as a guiding criterion in establishing project priorities. The County will understand the basic federal grant program criteria which will drive the identification, selection, and funding of the most competitive and worthy mitigation projects. FEMA's two grant programs (the Post-Disaster Hazard Mitigation Grant Program and Pre-Disaster Mitigation grant programs) that offer federal mitigation funding to state and local governments all include the benefit-cost and repetitive loss selection criteria.

The prioritization of new projects and deletion of completed projects will occur annually and be facilitated by the County Emergency Manager and the existing planning committee to include the County Commissioner's Office, city mayors and councils, fire district chiefs and commissioners, agency representatives (USFS, WA DNR, NACD, etc.), landowners, and other community organizations. All mitigation activities, recommendations, and action items mentioned in this document are dependent on available funding and staffing. The prioritization of projects will be based on the selection of projects which create a balanced approach to mitigation which recognizes the hierarchy of treating in order (highest first):

- People
- Infrastructure
- Local and Regional Economy
- Traditional Way of Life
- Ecosystems

5.1.1 Prioritization Scheme

A numerical scoring system is used to prioritize projects. This prioritization serves as a guide for the County when developing mitigation activities. This project prioritization scheme has been designed to rank projects on a case by case basis. In many cases, a very good project in a lower priority category could outrank a mediocre project in a higher priority. The County mitigation program does not want to restrict funding to only those projects that meet the high priorities because what may be a high priority for a specific community may not be a high priority at the county level. Regardless, the project may be just what the community needs to mitigate disaster. The flexibility to fund a variety of diverse projects based on varying reasons and criteria is a necessity for a functional mitigation program at the County and community level.

To implement this case by case concept, a more detailed process for evaluating and prioritizing projects has been developed. Any type of project, whether county or site specific, will be prioritized in this more formal manner.

Since planning projects are somewhat different than non-planning projects when it comes to reviewing them, different criteria will be considered, depending on the type of project.

The factors for the non-planning projects include:

- Benefit / Cost
- Population Benefit
- Property Benefit

- Economic Benefit
- Project Feasibility (environmentally, politically, socially)
- Hazard Magnitude/Frequency
- Potential for repetitive loss reduction
- Potential to mitigate hazards to future development
- Potential project effectiveness and sustainability

The factors for the planning projects include:

- Benefit / Cost
- Vulnerability of the community or communities
- Potential for repetitive loss reduction
- Potential to mitigate hazards to future development

Since some factors are considered more critical than others, two ranking scales have been developed. A scale of 1-10, 10 being the best, has been used for cost, population benefit, property benefit, economic benefit, and vulnerability of the community. Project feasibility, hazard magnitude/frequency, potential for repetitive loss reduction, potential to mitigate hazards to future development, and potential project effectiveness and sustainability are all rated on a 1-5 scale, with 5 being the best. The highest possible score for a non-planning project is 65 and for a planning project is 30.

The guidelines for each category are as follows:

5.1.1.1 Benefit / Cost (BC)

The analysis process will include summaries as appropriate for each project as well as benefit / cost analysis results. Projects with a negative BC analysis result will be ranked as a 0. Projects with a positive BC analysis will receive a score equal to the projects BC analysis results divided by 25. Therefore a project with a BC ratio of 125:1 would receive 5 points, a project with a BC ratio of 250:1 (or higher) would receive the maximum points of 10.

FEMA Requirement §201.4(c)(4)(iii) details criteria for prioritizing communities and local jurisdictions that would receive planning and project grants under available funding programs, which should include consideration for communities with the highest risks, repetitive loss properties, and most intense development pressures. Further, the requirement states that for non-planning grants, a principal criterion for prioritizing grants shall be the extent to which benefits are maximized according to a BC review of proposed projects and their associated costs. For many of the initiatives identified in this plan, the County may seek financial assistance under FEMA's HMGP or PDM programs. Both of these programs require detailed BC analysis as part of the FEMA award process. Asotin County is committed to implementing mitigation strategies with benefits which exceed costs. For projects which do not require financial assistance from grant programs that require this type of analysis, the County reserves the right to define "benefits" according to parameters that would otherwise be considered subjective, while still meeting the needs and goals of the plan.

5.1.1.2 Population Benefit

Population benefit relates to the ability of the project to prevent the loss of life or injuries. A ranking of 10 has the potential to impact 90% or more of the people in the municipality (County, city, or district). A ranking of 5 has the potential to impact 50% of the people, and a ranking of 1 will not impact the population. The calculated score will be the percent of the population impacted positively multiplied by 10. In some cases, a project may not directly provide

population benefits, but may lead to actions that do, such as in the case of a study. Those projects will not receive as high of a rating as one that directly effects the population, but should not be considered to have no population benefit.

5.1.1.3 Property Benefit

Property benefit relates to the prevention of physical losses to structures, infrastructure, and personal property. These losses can be attributed to potential dollar losses. Similar to cost, a ranking of 10 has the potential to save $100,000,000 or more in losses. Property benefit of less than $100,000,000 will receive a score of the benefit divided by $100,000,000, times 10 (for property benefits below $100 million). Therefore, a property benefit of $20,000,000 would receive a score of 2 ([20,000,000÷100,000,000] x 10 = 2). In some cases, a project may not directly provide property benefits, but may lead to actions that do, such as in the case of a study. Those projects will not receive as high of a rating as one that directly effects property, but should not be considered to have no property benefit.

5.1.1.4 Economic Benefit

Economic benefit is related to the savings from mitigation to the economy. This benefit includes reduction of losses in revenues, jobs, and facility shut downs. Since this benefit can be difficult to evaluate, a ranking of 10 would prevent a total economic collapse, a ranking of 5 could prevent losses to about half the economy, and a ranking of 1 would not prevent any economic losses. In some cases, a project may not directly provide economic benefits, but may lead to actions that do, such as in the case of a study. Those projects will not receive as high of a rating as one that directly affects the economy, but should not be considered to have no economic benefit.

5.1.1.5 Vulnerability of the Community

For planning projects, the vulnerability of the community is considered. A community that has a high vulnerability with respect to other jurisdictions to the hazard or hazards being studied or planned for will receive a higher score. To promote planning participation by the smaller or less vulnerable communities in the state, the score will be based on the other communities being considered for planning grants. A community that is the most vulnerable will receive a score of 10, and one that is the least, a score of 1.

5.1.1.6 Project Feasibility (Environmentally, Politically & Socially)

Project feasibility relates to the likelihood that such a project could be completed. Projects with low feasibility would include projects with significant environmental concerns or public opposition. A project with high feasibility has public and political support without environmental concerns. Those projects with very high feasibility would receive a ranking of 5 and those with very low would receive a ranking of 1.

5.1.1.7 Hazard Magnitude/Frequency

The hazard magnitude/frequency rating is a combination of the recurrence period and magnitude of a hazard. The severity of the hazard being mitigated and the frequency of that event must both be considered. For example, a project mitigating a 10-year event that causes significant damage would receive a higher rating than one that mitigates a 500-year event that causes minimal damage. For a ranking of 5, the project mitigates a high frequency, high

magnitude event. A 1 ranking is for a low frequency, low magnitude event. Note that only the damages being mitigated should be considered here, not the entire losses from that event.

5.1.1.8 Potential for repetitive loss reduction

Those projects that mitigate repetitive losses receive priority consideration here. Common sense dictates that losses that occur frequently will continue to do so until the hazard is mitigated. Projects that will reduce losses that have occurred more than three times receive a rating of 5. Those that do not address repetitive losses receive a rating of 1.

5.1.1.9 Potential to mitigate hazards to future development

Proposed actions that can have a direct impact on the vulnerability of future development are given additional consideration. If hazards can be mitigated on the onset of the development, the County will be less vulnerable in the future. Projects that will have a significant effect on all future development receive a rating of 5. Those that do not affect development should receive a rating of 1.

5.1.1.10 Potential project effectiveness and sustainability

Two important aspects of all projects are effectiveness and sustainability. For a project to be worthwhile, it needs to be effective and actually mitigate the hazard. A project that is questionable in its effectiveness will score lower in this category. Sustainability is the ability for the project to be maintained. Can the project sustain itself after grant funding is spent? Is maintenance required? If so, are or will the resources be in place to maintain the project. An action that is highly effective and sustainable will receive a ranking of 5. A project with effectiveness that is highly questionable and not easily sustained should receive a ranking of 1.

5.1.1.11 Final ranking

Upon ranking a project in each of these categories, a total score can be derived by adding together each of the scores. The project can then be ranked high, medium, or low based on the thresholds of:

Project Ranking Priority Score Non-Planning Projects

- High 40-65
- Medium 25-39
- Low 1-24

Project Ranking Priority Score Planning Projects

- High 18-30
- Medium 12-17
- Low 1-11

5.2 Possible Wildfire Mitigation Activities

As part of the implementation of wildfire mitigation activities in Asotin County, a variety of management tools may be used. Management tools include but are not limited to the following:

- Homeowner and landowner education
- Policy changes for structures and infrastructure in the Wildland Urban Interface

- Home site defensible zone through fuels modification
- Community defensible zone through fuels alteration
- Access improvements
- Emergency response enhancements (training, equipment, locating new fire stations, new fire districts)
- Regional land management recommendations for private, state, and federal landowners

Maintaining private property rights will continue to be one of the guiding principles of this plan's implementation. Sound risk management is a foundation for all fire management activities. Risks and uncertainties relating to fire management activities must be understood, analyzed, communicated, and managed as they relate to the cost of either doing or not doing an activity. Net gains to the public benefit will be an important component of decisions.

5.3 Safety & Policy

Wildfire mitigation efforts must be supported by a set of policies and regulations at the County level that maintain a solid foundation for safety and consistency. The recommendations enumerated here serve that purpose. Because these items are regulatory in nature, they will not necessarily be accompanied by cost estimates. These recommendations are policy related in nature and therefore are recommendations to the appropriate elected officials; debate and formulation of alternatives will serve to make these recommendations suitable and appropriate.

Table 5.1. Action Items in Safety and Policy.

Action Item	Goals and Objectives	Responsible Organization	Timeline and Implementation Plan
5.1.a: Develop County policy concerning building materials used in high-risk WUI areas on existing structures and new construction.	**Protection of people and structures** by improving the ability of emergency response personnel to respond to threatened homes in high-risk areas. Priority: High	**Lead:** County Commissioner's Office **Support:** Asotin County Fire District #1, City of Clarkston Fire Department, and City of Asotin Fire Department.	Year 1-2 (2008-09): Consider and develop policy to address construction materials for homes and businesses located in high wildfire risk areas. Specifically, a County policy concerning wooden roofing materials and flammable siding, especially where juxtaposed near heavy wildland fuels.
5.1.b: Begin distributing "Code of the New West"-type pamphlets with building permit requests.	**Protection of people and structures** by improving the ability of emergency response personnel to respond to threatened homes in high-risk areas. Priority: Medium	**Lead:** County Building Department **Support:** County Commissioners and incorporated cities of Clarkston and Asotin	Year 1 (2008): Obtain copyrights to "New Code of the West" pamphlet. Year 2 (2009): Distribute pamphlets.

Table 5.1. Action Items in Safety and Policy.

Action Item	Goals and Objectives	Responsible Organization	Timeline and Implementation Plan
5.1.c: Rural signage (road signs & house numbers) improvements across the County.	**Protection of people, structures, and infrastructure** by improving the ability of emergency services personnel, residents, and visitors to navigate roads. Priority: High	**Lead:** County Building Department **Support:** County Planning Department and County Commissioners	Can be completed during year 1 (2008) pending funding to implement the project. Estimate $20,000 for signs and posting.
5.1.d: Develop county policy to encourage new home and business construction to install underground power lines.	**Protection of people and structures by** reducing the risk of wildfire ignitions. Priority: High	**Lead:** County Planning Department **Support:** County Commissioner's Office, Asotin County Public Utilities District, BPA, and Clearwater Power.	Year 1-2(2008-09): Implement a policy to require new utility lines to be buried underground. Year 3 (2010): Collaborate with Asotin County Public Utilities District and local utility companies to implement this policy.
5.1.e: Develop a policy to enforce burning permits and fire restrictions throughout the County.	**Protection of people and structures** by reducing the fire ignitions in high-risk areas. Priority: High	**Lead:** County Commissioners **Support:** City and County Planning Departments, Asotin County Sheriff's Office, DNR, incorporated cities of Clarkston and Asotin, and local communities.	Year 1-2 (2008-09): Consider and develop policy to address burn permit system and enforcement to help reduce the number of accidental wildfire ignitions.
5.1.f: Incorporate the Asotin County Community Wildfire Protection Plan into the Asotin County Comprehensive Plan, where applicable.	**Protection of people and structures** by dovetailing this planning process with other County planning documents. Priority: High	**Lead:** Asotin County Commissioners **Support:** Asotin County Planning Department.	Ongoing: Incorporate the goals and projects outlined in this plan into the updated Comprehensive Plan.
5.1.g: Adopt stringent regulations to insure fire-safe development of rural subdivisions (see FIREWISE or similar programs for specific recommendations).	**Protection of people and structures** by improving the ability of emergency services personnel to safely and effectively respond to home fires and decrease the overall fire risk in wildland urban interface areas. Priority: High	**Lead:** County Planning Department **Support:** County Commissioner's Office, County Building Department, Asotin County Fire District #1, City of Clarkston Fire Department, and City of Asotin Fire Department, developers, BPA, Clearwater, and interested residents.	Year 1-2 (2008-09): Research fire-safety related programs such as FIREWISE to determine specific recommendations for policy changes regarding development of rural subdivisions. Year 2 – 3 (2009 – 2010): Begin gathering public support of new regulations. Produce and submit necessary documentation to facilitate County adoption of recommended regulations.
5.1.h: Adopt and enforce a fireworks ban in areas unprotected by a firefighting organization during the fire season. Designate safe "firework areas" within protected communities.	**Protection of people and structures** by reducing fire ignitions in high-risk, unprotected areas. Priority: High	**Lead:** County Commissioners **Support:** Asotin County Sheriff's Office, Asotin County Fire District #1, City of Clarkston Fire Department, City of Asotin Fire Department, and incorporated cities of Clarkston and Asotin.	Year 1-2 (2008-09): Consider and develop fireworks ban in areas unprotected by a firefighting organization and designate areas within protected communities where people can safely light fireworks. Develop an effective method of enforcement and penalty for violation of proposed ban.

Table 5.1. Action Items in Safety and Policy.

Action Item	Goals and Objectives	Responsible Organization	Timeline and Implementation Plan
5.1.i: Enforcement of International Building Codes and International Fire Codes countywide to address substandard construction practices and access issues outside the incorporated city limits.	**Protection of people and structures** by improving access for emergency responders and reducing potential ignition risks due to substandard construction. Priority: High	**Lead:** County Commissioners **Support:** Asotin County Planning and Zoning, Public Works, and Asotin County Fire District #1.	Year 1-2 (2008-09): Develop a strategic plan for insuring that all International Building and Fire Code regulations are enforced countywide.
5.1.j: Develop county policy requiring management of vegetation on empty or open lots and pastures within the city limits and heavily populated areas in the unincorporated Asotin County to reduce the fire risk.	**Protection of people and structures by** reducing the risk of wildfire ignitions as well as uncontrolled fire spread. Priority: High	**Lead:** County Planning Department **Support:** County Commissioner's Office, City of Asotin, City of Clarkston, City of Asotin Fire Department, City of Clarkston Fire Department, and Asotin County Fire District #1.	Year 1-2 (2008-09): Develop a policy to require owners of empty or open lots and pasture in populated areas to implement a vegetation/fuels management program (mowing, herbicide, etc.) to lessen the risk of accidental ignition and fire spread in these high risk fuels. Year 3 (2010): Collaborate with Asotin County Fire District #1 and city fire departments to develop adequate policy.
5.1.k: Develop a county policy to encourage land management agencies to implement a fuels reduction program at recreational or high use areas and trailheads.	**Protection of people and structures by** reducing the risk of wildfire ignitions. Priority: High	**Lead:** County Commissioners **Support:** County Planning, City of Asotin, City of Clarkston, USFS, DNR, BLM, Department of Fish and Wildlife, City of Asotin Fire Department, City of Clarkston Fire Department, and Asotin County Fire District #1.	Year 1-2 (2008-09): Develop a policy to encourage land management agencies to actively manage fuels in high use areas to reduce the risk of accidental ignitions. Year 1 (2010): Collaborate with local fire departments and various land management agencies to develop a mutually agreed upon policy.
5.1.l: Develop a communication interoperability plan between firefighting agencies/organizations and landowners.	**Protection of people and structures by** improving communication between residents and firefighters. Priority: High	**Lead:** County Emergency Manager **Support:** County Sheriff's Office, USFS, DNR, BLM, Department of Fish and Wildlife, City of Asotin Fire Department, City of Clarkston Fire Department, and Asotin County Fire District #1.	Year 1 (2008): Convene a multi-jurisdictional committee to work on the development of a communications interoperability plan. Year 1 – 2 (2008 - 09): Develop and publish a practical and feasible plan and implement objectives.
5.1.m: Install fire danger notification/awareness signs along travel corridors in Anatone, Cloverland, along Snake River, and at the entrance/exit of Asotin.	**Protection of people and structures by** improving local awareness of wildfire danger. Priority: High	**Lead:** County Emergency Manager **Support:** County Commissioners, Asotin County Conservation District, USFS, DNR, City of Asotin Fire Department, City of Clarkston Fire Department, and Asotin County Fire District #1.	Year 1 (2008): Research potential options for budget and maintenance and develop a project implementation plan. Year 1 or 2 (2008-09): Acquire and deliver needed materials and equipment. Set up a schedule for maintenance of accurate information at each site.

Table 5.1. Action Items in Safety and Policy.

Action Item	Goals and Objectives	Responsible Organization	Timeline and Implementation Plan
5.1.n: Coordinate and help fund a "fire marshal" type position to assist the County in enforcing existing fire codes and lead development of projects resulting from the CWPP process.	**Protection of people and structures by** improving the County's ability to reduce wildfire risk and implement projects. Priority: High	**Lead:** County Commissioners **Support:** Local residents, Conservation District, City of Asotin Fire Department, City of Clarkston Fire Department, and Asotin County Fire District #1.	Year 1-2 (2008-09): Develop specific job description and begin gathering local and governmental support. Year 3 (2010): Create position and begin hiring process.

5.4 People and Structures

The protection of people and structures will be tied together closely as the loss of life in the event of a wildland fire is generally linked to a person who could not, or did not, flee a structure threatened by a wildfire. The other incident is a firefighter who suffers the loss of life during the combating of a fire. Many of the recommendations in this section will define a set of criteria for implementation while others will be rather specific in extent and application.

Many of the recommendations in this section involve education and increasing awareness of the residents of Asotin County. These recommendations stem from a variety of factors including items that became obvious during the analysis of the public surveys, discussions during public meetings, and observations about choices made by residents living in the wildland-urban interface. Over and over, the common theme was present that pointed to a situation of landowners not recognizing risk factors:

- Fire district personnel pointed to numerous examples of inadequate access to homes of people who believe they have adequate ingress.
- Discussions with the general public indicated an awareness of wildland fire risk, but they could not generally identify risk factors.
- A large number of the respondents to the public mail survey (55%) indicated that they want to participate in educational opportunities focused on the WUI and what they can do to increase their home's chances of surviving a wildfire.

Residents and policy makers of Asotin County should recognize certain factors that exist today, that in their absence would lead to an increase in the risk factors associated with wildland fires in the WUI of Asotin County. The items listed below should be encouraged, acknowledged, and recognized for their contributions to the reduction of wildland fire risks:

Livestock grazing in and around the communities of Asotin County has led to a reduction of many of the fine fuels that would have been found in and around the communities and in the wildlands of Asotin County. Domestic livestock not only eat these grasses, forbs, and shrubs, but they also trample certain fuels to the ground where decomposition rates may increase. Livestock ranchers tend their stock, placing additional sets of eyes into the forests and rangelands of the County where they may observe ignitions or potentially risky activities. Livestock grazing in this region should be encouraged in the future as a low cost, positive tool of wildfire mitigation in the wildland-urban interface and beyond.

Forest management in Asotin County has not been greatly affected by the reduction of operating sawmills in the region. The forest management programs of the U.S. Forest Service and the Washington Department of Natural Resources in the region has led to some reduction of wildland fuels where they are closest to homes and infrastructure; however, there is significant room for growth in these agencies' fuels reduction programs. In addition, many

private and industrial forest landowners have implemented very active forest management programs that are leading to a significant decrease in high risk fuels. Furthermore, forests are dynamic systems that will never be completely free from risk. Treated stands will need repeated treatments to reduce the risk to acceptable levels in the long term. Asotin County, as well as several other organizations and agencies, is currently considering using prescribed fire as a management tool to reduce hazardous fuels on their lands.

Agriculture is a significant component of Asotin County's economy. Much of the rangeland interface is made up of a mosaic of agricultural crops. The original conversion of these lands to agriculture from rangeland and forestland, was targeted at the most productive soils and juxtaposition to water. Many of these productive rangeland ecosystems were consequently also at some of the highest risk to wildland fires because biomass accumulations increased in these productive landscapes. The result today, is much of the landscape historically prone to frequent fires, has been converted to agriculture, which is at a much lower risk than prior to its conversion. The preservation of a viable agricultural economy in Asotin County is integral to the continued management of wildfire risk in this region.

Salvage logging after a wildfire event can help capture some of the burned over timber's economic value if implemented immediately after the wildfire event. Additionally, the removal of dead or dying trees can help lessen the forest's subsequent attack by insects. Salvage logging, if done responsibly, can be effective in accomplishing both the economic goals of the administrating party as well as help reduce fuel loads in high risk areas.

Prescribed fire can be used as a tool in forest and rangeland management programs to accomplish several goals. Prescribed fire, when done correctly and in appropriate areas, can help reduce hazardous fuel loads. Prescribed fire has also been used to prepare sites for seeding or planting, improve wildlife habitat, manage competing vegetation, control insects and disease, improve forage for grazing, enhance appearance, and improve access.

Table 5.2. Action Items for People and Structures.

Action Item	Goals and Objectives	Responsible Organization	Timeline and Implementation Plan
5.2.a: Implementation of youth and adult wildfire educational programs.	**Protect people and structures** by increasing awareness of WUI risks, how to recognize risk factors, and how to modify those factors to reduce risk. Priority: High	Cooperative effort including: • Washington Department of Natural Resources • State and Private Forestry Offices • Bureau of Land Management • USDA Forest Service • Local School Districts • Asotin County Conservation District • Local utility companies • Local Non-governmental Community Organizations • Local Fire District and Departments in Asotin County • Incorporated cities Clarkston and Asotin and communities of Asotin County	To start immediately using existing educational program materials and staffing (e.g. Forest Stewardship class offered by Washington State University). Formal needs assessment should be the responsibility of WSU Extension and include the development of an integrated WUI educational series by year 2 (2009). Costs initially to be funded through existing budgets for these activities to be followed with grant monies to continue the programs as identified in the formal needs assessment.
5.2.b: Wildfire risk assessments of homes.	**Protect people and structures** by increasing awareness of specific risk factors of individual home sites in the at-risk landscapes. Only after these are completed can home site treatments follow. Priority: Medium	**Lead:** County Emergency Manager and Washington DNR **Support:** County Commissioner's, Asotin Conservation District, USFS, local community organizations, Asotin County Fire District #1, City of Clarkston Fire Department, and City of Asotin Fire Department. Actual work may be completed by Wildfire Mitigation Consultants.	Cost: Approximately $100 per home site for inspection, written report, and discussions with the homeowners. There are approximately 9,543 parcels (with improvements) in Asotin County, roughly 954 (10%) of these structures would benefit from a home site inspection and budget determination for a total estimate of $95,400. Action Item: Secure funding and contract to complete the inspections during years 1 & 2 (2008-09) Home site inspection reports and estimated budget for each home site's treatments will be a requirement to receive funding for treatments through grants.
5.2.c: Home site defensible space treatments.	**Protect people, structures, and increase firefighter safety** by reducing the risk factors surrounding homes in the WUI of Asotin County. Priority: Medium	**Lead:** County Emergency Manager and Washington DNR **Support:** County Commissioner's, Conservation District, USFS, local community organizations, Asotin County Fire District #1, City of Clarkston Fire Department, and City of Asotin Fire Department.	Actual cost level will be based on the outcomes of the home site assessments. Estimate that treatments in rangelands will cost approximately $400 per home site for a defensible space of roughly 150'. Approximately 668 home site treatments (70% of those assessed) throughout the County would add up to an estimated cost of $267,200. Home site defensible space treatments in forested areas typically cost approximately $1,000 for a defensible space of roughly 200'. Home site treatments can begin with the securing of funding for the treatments and immediate implementation in 2008 and will continue from year 1 through 5 (2011).

Table 5.2. Action Items for People and Structures.

Action Item	Goals and Objectives	Responsible Organization	Timeline and Implementation Plan
5.2.d: Community defensible zone treatments in rural subdivisions or housing clusters.	**Protect people, structures, and increase firefighter safety** by reducing the risk factors surrounding high risk communities in the WUI of Asotin County. Priority: Medium	**Lead:** County Emergency Manager and Washington DNR **Support:** County Commissioner's, Conservation District, BPA, Clearwater Power, USFS, local community organizations, Asotin County Fire District #1, City of Clarkston Fire Department, and City of Asotin Fire Department.	Actual funding level will be based on the outcomes of the home site assessments and cost estimates. Years 2-5 (2009-11): Treat high risk wildland fuels from home site defensible space treatments to an area extending 400 feet to 750 feet beyond home defensible spaces, where steep slopes and high accumulations of risky fuels exist near homes and infrastructure. Should link together home treatment areas. Treatments target high risk concentrations of fuels and not 100% of the area identified. To be completed only after or during the creation of home defensible spaces have been implemented. Approximate average cost on a per parcel basis is $2,800 (average 4 acres per home) depending on extent of home defensibility site treatments, estimate 334 homes (50% of treated homes) in need of this type of treatment for a cost estimate of $935,200.
5.2.e: Maintenance of home site defensible space treatments.	**Protect people, structures, and increase firefighter safety** by reducing the risk factors surrounding homes in the WUI of Asotin County. Priority: Medium	**Lead:** County Emergency Manager and Washington DNR **Support:** County Commissioner's, Conservation District, USFS, local community organizations, Asotin County Fire District #1, City of Clarkston Fire Department, and City of Asotin Fire Department.	Home site defensibility treatments must be maintained periodically to sustain benefits of the initial treatments. Each site should be assessed every 5 years following initial treatment Estimated re-inspection cost will be $300 per home site on all sites initially treated or recommended for future inspections ($200,400). Follow-up inspection reports with treatments as recommended every 5 years following initial treatment.

5.5 Infrastructure

Significant infrastructure refers to the communications, transportation (road and rail networks), energy transport supply systems (gas and power lines), and water supply that service a region or a surrounding area. All of these components are important to southeastern Washington, and to Asotin County specifically. These networks are by definition a part of the wildland-urban interface in the protection of people, structures, **infrastructure**, and unique ecosystems. Without supporting infrastructure a community's structures may be protected, but the economy and way of life lost. As such, a variety of components will be considered here in terms of management philosophy, potential policy recommendations, and mitigation recommendations.

Communication Infrastructure: This component of the WUI seems to be diversified across the county with multiple source and destination points and a spread-out support network.

Transportation Infrastructure (road and rail networks): This component of the WUI has some significant potential limitations in Asotin County. U.S. Highway 12 is the primary maintained routes linking Asotin County to other major population centers including Lewiston and Walla Walla. Thus, a significant amount of interstate and international traffic travels through the County. Also, State Highway 129, Asotin Creek Road, and the Snake River Road connect the more remote communities of Rogersburg, Cloverland, and Anatone. In the event any of these roadways are disabled, access or evacuation to some areas may become limited to seasonally maintained secondary roads or forest routes.

Other roads in the County have limiting characteristics, such as narrow travel surfaces, sharp turning radii, low load limit bridges and cattle guards, and heavy accumulations of fuels adjacent to and overtopping the corridor. Some of these roads access remote forestland and rangeland areas. While their improvements will facilitate access in the case of a wildfire, they are not the priority for treatments in the county. Roads that have these inferior characteristics and access homes and businesses are the priority for improvements in the county.

Energy Transport Supply Systems (gas and power lines): A number of power lines crisscross Asotin County. Unfortunately, many of these power lines cross over rangeland ecosystems. When fires ignite in these vegetation types, the fires tend to be rapidly spreading and burn at variable intensities depending on the weather conditions. There is a potential for high temperatures and low humidity with high winds to produce enough heat and smoke to threaten power line stability. Most power line corridors have been cleared of vegetation both near the wires and from the ground below. Observations across the County of the primary transmission lines lead to the conclusion that many of the lines should be evaluated for potential widening of the corridor and further removal of brush and other vegetation from the ground below the wires.

The Bonneville Power Administration (BPA) and Clearwater Power maintain several power lines in the county; however, these lines cross only rangeland, agricultural, or otherwise developed areas. Nearly all Asotin County residents are dependent on this power grid for electricity. The use of these areas as "fuel breaks" should be evaluated further, especially in light of the treatments enumerated in this plan (e.g., intensive livestock grazing, mechanical treatments, and herbicide treatments).

Water Supply: In many of Washington's communities, water is derived from surface flow that is treated and piped to homes and businesses. When wildfires burn a region, they threaten these watersheds by the removal of vegetation and creation of ash and sediment. As such, watersheds should be afforded the highest level of protection from catastrophic wildfire impacts. In Asotin County, water is supplied to many homes by single home or multiple home wells or pumped from the Snake River.

Table 5.3. Action Items for Infrastructure Enhancements.

Action Item	Goals and Objectives	Responsible Organization	Timeline and Implementation Plan
5.3.a: Post "Emergency Evacuation Route" signs along the identified primary and secondary access routes.	**Protection of people and structures by** informing residents and visitors of significant infrastructure in the County that will be maintained in the case of an emergency. Priority: High	**Lead:** County Emergency Manager **Support:** County Public Works, County Commissioner's, Asotin County Fire District #1, City of Clarkston Fire Department, and City of Asotin Fire Department..	Year 1 (2008): Purchase of signs. Post roads and make information available to residents of the importance of Emergency Routes.
5.3.b: Create and maintain defensible space around critical infrastructure including, but not limited to power line corridors, communication sites, community shelters, government buildings (city, County, State, and federal), petroleum storage sites, hospitals, water storage sites, and PUD Service Stations.	**Protect people, structures, and increase firefighter safety** by decreasing the risk of loss of critical communications infrastructure to wildland fire. Priority: High	**Lead:** County Emergency Manager **Support:** County Commissioners, Conservation District, BPA, Clearwater Power, and incorporated cities of Clarkston and Asotin, Asotin County Public Utilities District, and various facility/utility owners.	Year 1 (2008): Meet with facility and utility owners operating communications infrastructure in Asotin County and set up a criteria for maintaining a defensible space in these areas. Year 2 (2009): Develop defensible space plans and begin implementing hazardous fuel reduction projects.
5.3.c: Access improvements of bridges, cattle guards, culverts, and limiting road surfaces.	**Protection of people, structures, infrastructure, and economy** by improving access for residents and firefighting personnel in the event of a wildfire. Reduce the risk of a road failure that leads to the isolation of people or the limitation of emergency vehicle and personnel access during an emergency. Priority: Medium	**Lead:** County Public Works **Support:** County Commissioners, Conservation District, State of Washington (Lands and Transportation), USFS, DNR, and private landowners.	Year 1 (2008): Update existing assessment of travel surfaces, bridges, and cattle guards in Asotin County as to location. Secure funding for implementation of this project (grants). Year 2 (2009): Conduct engineering assessment of limiting weight restrictions for all surfaces (e.g., bridge weight load maximums). Estimate cost of $XXX which might be shared between County, BLM, USFS, State, and private based on landownership associated with road locations. Year 2 (2009): Post weight restriction signs on all limiting crossings, copy information to rural fire districts and wildland fire protection agencies in affected areas. Estimate cost at roughly $10-$15,000 for signs and posting. Year 3 (2010): Identify limiting road surfaces in need of improvements to support wildland firefighting vehicles and other emergency equipment. Develop plan for improving limiting surfaces including budgets, timing, and resources to be protected for prioritization of projects (benefit/cost ratio analysis). Create budget based on full assessment.

Table 5.3. Action Items for Infrastructure Enhancements.

Action Item	Goals and Objectives	Responsible Organization	Timeline and Implementation Plan
5.3.d: Fuels mitigation of the primary access routes in the County to insure these routes can be maintained in the case of an emergency.	**Protection of people and structures by** providing residents and visitors with ingress and egress that can be maintained during an emergency. Priority: High	**Lead:** County Public Works and Washington Department of Transportation **Support:** County Commissioner's Office, USFS, DNR, Conservation District, and private landowners.	Year 1 (2008): Full assessment of road defensibility and ownership participation. Year 2 (2009): Implement projects.
5.3.e: Access improvements through roadside fuels management.	**Protection of people, structures, infrastructure, and economy** by improving access for residents and firefighting personnel in the event of a wildfire. Allows for a road based defensible area that can be linked to a terrain based defensible areas. Priority: High	**Lead:** County Emergency Manager **Support:** County Public Works, State of Washington (Lands and Transportation), USFS, DNR, Conservation District, and private landowners.	Year 1 (2008): Update existing assessment of roads in Asotin County as to location. Secure funding for implementation of this project (grants). Year 2 (2009): Specifically address access issues to roads identified in assessment. Identify forestland and rangeland fuels difficult to control during wildfire that would also respond well to thinning, pruning, and brush cutting (hand pile and burn or chip), while increasing ingress and egress use in wildfire emergencies. Target 200' from each side of the road for estimated cost of $15-$23,000 per mile of road treated. Year 3 (2010): Secure funding and implement projects to treat roadside fuels.

5.6 Resource and Capability Enhancements

There are a number of resource and capability enhancements identified by the rural and wildland firefighting districts in Asotin County. All of the needs identified by the districts are in line with increasing the ability to respond to emergencies and are fully supported by the Community Wildfire Protection Plan committee.

Specific repeated themes of needed resources and capabilities include:

- Retention and recruitment of volunteers
- Update firefighting equipment countywide
- Improved road and house number signage
- Training and development of rural firefighters in structure and wildland fire

Although additional, and specific, needs were enumerated by the districts in Asotin County, these items were identified by multiple districts and in the public meetings. The implementation of each issue will rely on either the isolated efforts of the fire districts or a concerted effort by the County to achieve equitable enhancements across all of the districts. Given historic trends, individual departments competing against neighboring departments for grant monies and equipment will not necessarily achieve countywide equity. However, the Blue Mountain RC&D may be an organization uniquely suited to work with all of the districts in Asotin County and adjacent counties to assist in the prioritization of needs across district and even county lines. Once prioritized, the Blue Mountain RC&D is in a position to assist these districts with identifying, competing for, and obtaining grants and equipment to meet these needs.

Table 5.4. Action Items for Firefighting Resource and Capability Enhancements.

Action Item	Goals and Objectives	Responsible Organization	Timeline and Implementation Plan
5.4.a: Enhance radio availability in each district, link in to existing dispatch, improve range within the region, and conversion to consistent standard of radio types.	**Protection of people and structures** by direct firefighting capability enhancements. Priority: High	**Lead:** County Emergency Manager **Support:** County Commissioner's, Sheriff's Office, USFS, DNR, local community organizations, Asotin County Fire District #1, City of Clarkston Fire Department, and City of Asotin Fire Department.	Year 1 (2008): Summarize existing two-way radio capabilities and limitations. Identify costs to upgrade existing equipment and locate funding opportunities. Year 2 (2009): Acquire and install upgrades as needed.
5.4.b: Retention of volunteer firefighters.	**Protection of people and structures** by direct firefighting capability enhancements. Priority: High	**Lead:** County Commissioner's, Asotin County Fire District #1, City of Clarkston Fire Department, and City of Asotin Fire Department. **Support:** Wildland fire agencies working with a broad base of County citizenry.	Target an increased recruitment (+10%) and retention (+20% longevity) of volunteers. Year 1 (2008): Develop incentives program and implement it.

Table 5.4. Action Items for Firefighting Resource and Capability Enhancements.

Action Item	Goals and Objectives	Responsible Organization	Timeline and Implementation Plan
5.4.c: Establish and map onsite water sources such as hydrants or underground storage tanks and drafting or dipping sites (e.g. Bennett Ridge, mouth of McGuire Canyon, along the Snake River, and Huber Gulch – see map in Appendix I).	**Protection of people and structures** by direct firefighting capability enhancements. Priority: High	**Lead:** County Emergency Manager **Support:** County Commissioner's Office, County GIS Department, USFS, DNR, Asotin County Fire District #1, City of Clarkston Fire Department, and City of Asotin Fire Department.	Year 1 (2008): Identify populated areas lacking sufficient water supplies and prepare project plans to develop a permanent water source or drafting/dipping sites. Implement project plans and begin mapping (GPS) known water sources and drafting/dipping sites to be provided to fire response agencies and County offices.
5.4.d: Increase training and capabilities of firefighters.	**Protection of people and structures** by direct fire fighting capability enhancements. Priority: High	**Lead:** County Commissioner's, USFS, local community organizations, Asotin County Fire District #1, City of Clarkston Fire Department, and City of Asotin Fire Department. **Support:** County Emergency Manager, DNR, BLM, and USFS for wildland training opportunities and with the State Fire Marshall's Office for structural firefighting training.	Year 1 (2008): Develop a multi-County training schedule that extends 2 or 3 years in advance (continuously). Identify funding and resources needed to carry out training opportunities and sources of each to acquire. Year 1 (2008): Begin implementing training opportunities for volunteers.
5.4.e: Facility, land, and basic equipment for an additional station for the City of Asotin Fire Department.	**Protection of people and structures** by direct firefighting capability enhancements. Priority: Medium	**Lead:** City of Asotin Fire Department	Year 1 (2008): Verify stated need still exists, develop budget, and locate funding and equipment (surplus) sources. Year 1 or 2 (2008-09): Acquire and deliver needed materials and equipment.
5.4.f: Support local efforts to gain fire protection services in currently unprotected areas.	**Protection of people and structures** by direct firefighting capability enhancements. Priority: High	**Lead:** County Commissioners **Support:** Local residents, Asotin County Fire District #1, Washington DNR, USFS, and Washington Fish and Wildlife Service.	Year 1 (2008): Begin researching options and funding sources. Begin campaign to gain local support for the project. Year 1 or 3 (2008-09): Pick the best option based on availability and community support and begin implementing project plan.
5.4.g: Obtain a newer brush truck and a command vehicle for the City of Asotin Fire Department.	**Protection of people and structures** by direct firefighting capability enhancements. Priority: Medium	**Lead:** City of Asotin Fire Department	Year 1 (2008): Verify stated need still exists, develop budget, and locate funding and equipment (surplus) sources. Year 1 or 2 (2008-09): Acquire and deliver needed materials and equipment.

Table 5.4. Action Items for Firefighting Resource and Capability Enhancements.

Action Item	Goals and Objectives	Responsible Organization	Timeline and Implementation Plan
5.4.h: Improve safety equipment and personal protective equipment for all fire districts in Asotin County.	**Protection of people and structures** by direct firefighting capability enhancements. Priority: High	**Lead:** County Emergency Manager **Support:** County Commissioner's, USFS, local community organizations, Asotin County Fire District #1, City of Clarkston Fire Department, and City of Asotin Fire Department.	Year 1 (2008): Complete an inventory of all supplies held by the Fire Districts (boots, turnouts, Nomex, gloves, modern lighting, straps, and hardware), and complete a needs assessment matching expected replacement schedule. Develop Countywide re-supply process for needed equipment.
5.4.i: Support the maintenance and/or enhancement of state and federal firefighting programs and resources in Asotin County.	**Protection of people and structures** by direct wildland firefighting capability enhancements. Priority: High	**Lead:** County Emergency Manager **Support:** County Commissioners and Blue Mountain RC&D.	Ongoing: Provide community and County support for the State and Federal fire and firefighting programs within the County. Assist State and Federal fire programs raise awareness of wildland fire issues in local communities.
5.4.j: Facility, land, and basic equipment for an additional station for the Asotin County Fire District #1.	**Protection of people and structures** by direct firefighting capability enhancements. Priority: High	**Lead:** Asotin County Fire District #1	Year 1 (2008): Verify stated need still exists, develop budget, and locate funding and equipment (surplus) sources. Year 1 or 2 (2008-09): Acquire and deliver needed materials and equipment.
5.4.k: Facility, land, and basic equipment for an additional station for the City of Clarkston Fire Department.	**Protection of people and structures** by direct firefighting capability enhancements. Priority: High	**Lead:** City of Clarkston Fire Department	Year 1 (2008): Verify stated need still exists, develop budget, and locate funding and equipment (surplus) sources. Year 1 or 2 (2008-09): Acquire and deliver needed materials and equipment.
5.4.l: Purchase and set up a Reverse 911 system.	**Protection of people and structures** by improving notification time and improving landowner and firefighting agency communication. Priority: High	**Lead:** County Emergency Manager **Support:** County Commissioner's, Asotin County Fire District #1, City of Clarkston Fire Department, and City of Asotin Fire Department.	Year 1 (2008): Research potential options, develop budget, and locate funding, equipment, and software sources. Year 1 or 2 (2008-09): Acquire and deliver needed materials and equipment.
5.4.m: Obtain additional funding for the maintenance of the City of Clarkston Fire Department's utility truck, the department's sole wildland firefighting vehicle.	**Protection of people and structures** by direct firefighting capability enhancements. Priority: Medium	**Lead:** City of Clarkston Fire Department	Year 1 (2008): Verify stated need still exists, develop budget, and locate funding and equipment (surplus) sources. Year 1 or 2 (2008-09): Acquire and deliver needed materials and equipment.

5.7 Proposed Project Areas

5.7.1 Proposed Home Defensible Space Projects

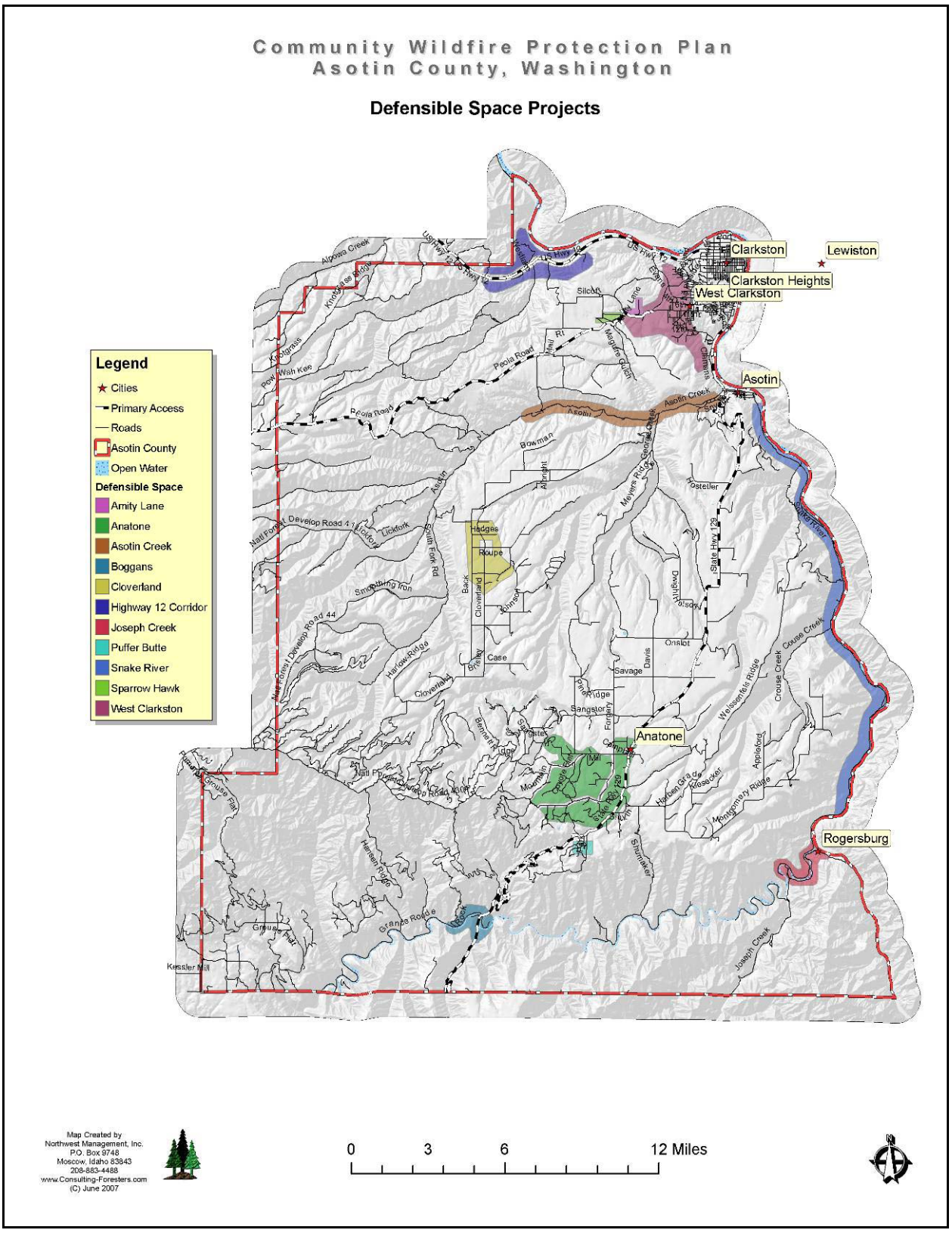
The following home defensible space project areas were identified by the CWPP planning committee as having multiple factors contributing to the potential wildfire risk to residents, homes, infrastructure, and the ecosystem. Treatments within the project areas will be site specific, but will likely include homeowner education, creation of a wildfire defensible space around structures, and access corridor improvements. Specific site conditions may call for other types of fuels reduction and fire mitigation techniques as well. The estimated project cost was calculated by assuming an average treatment cost of $400 per structure for non-forested areas and $1000 per structure in forested areas. It is also assumed that approximately 80% of the structures in the project area will be treated.

The Washington Department of Natural Resources, U.S. Forest Service, Bureau of Land Management, Asotin County Conservation District, and/or the Blue Mountain RC&D may take the lead on implementation of many of these projects; however, project boundaries were purposely drawn without regard to land ownership in order to capture the full breadth of the potential wildland fire risk. Coordination and participation by numerous landowners will be required for the successful implementation of the identified projects. Additional planning information on these projects is included in the Appendices.

Table 5.5. Proposed Home Defensible Space Project Areas.

Project Areas	Number of Structures	Estimated Project Cost	Priority Ranking
Amity Lane Defensible Space	12	$3,840	Medium
Anatone Defensible Space	251	$136,480	High
Asotin Creek Defensible Space	117	$68,800	High
Boggans Defensible Space	28	$8,960	Medium
Cloverland Defensible Space	52	$16,640	Medium
Highway 12 Corridor Defensible Space	88	$28,160	High
Joseph Creek Defensible Space	49	$15,680	Medium
Puffer Butte Defensible Space	29	$23,200	Medium
Snake River Defensible Space	140	$44,800	High
Sparrow Hawk Defensible Space	15	$4,800	Medium
West Clarkston Defensible Space	1,370	$438,400	High

Figure 5.1. Map of Proposed Home Defensible Space Projects



5.7.2 Proposed Community Defensible Zone Projects

The following community defensible zone projects were identified by the planning committee as high wildfire risk areas beyond the immediate vicinity of the home defensible space projects. The community defensible zone projects include common spaces or additional public or private property surrounding more densely populated areas.

The proposed community defensible zone projects are intended to treat high risk wildland fuels to an area extending beyond home defensible spaces, where steep slopes and high accumulations of risky fuels exist near homes and infrastructure. These projects should link home site treatments areas together. Community defensible zone treatments should target high risk concentrations of fuels and not necessarily 100% of the area identified. These projects should be completed only after or during home defensible space project implementation.

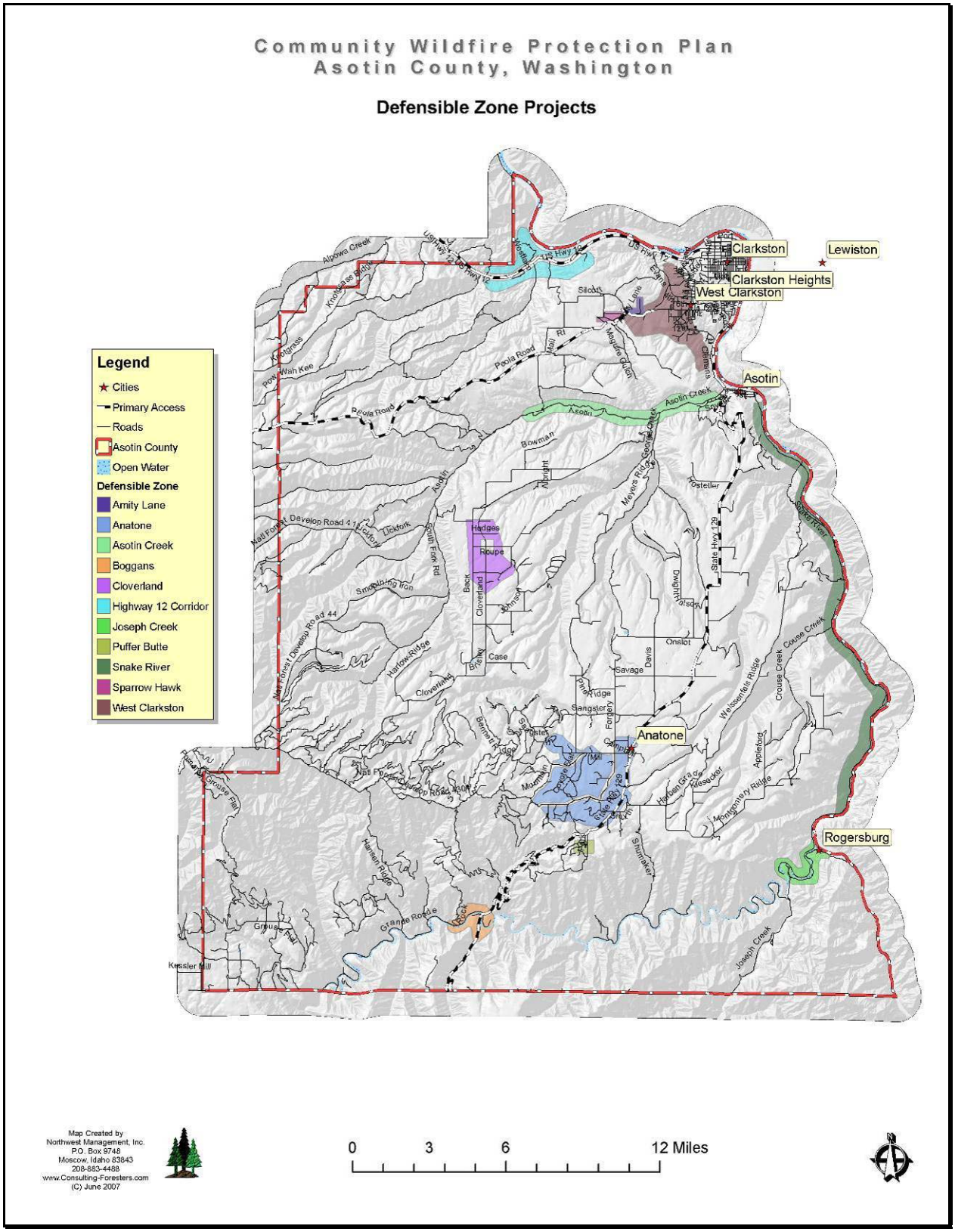
The estimated project costs were calculated based on treating an additional four acres per structure at approximately $200 per acre for non-forested areas and $700 per acre for forestlands. Cost estimates assume that no revenue was generated by the removal of timber or other product. It is also assumed that 80% of the structures in the project area will receive treatment. Community defensible zone projects may include, but are not limited to commercial or precommercial thinning, prescribed burning, installation of greenbelts or fuel breaks, and general forest health improvements.

The Washington Department of Natural Resources, U.S. Forest Service, Bureau of Land Management, Asotin County Conservation District, and/or the Blue Mountain RC&D may take the lead on implementation of many of these projects; however, project boundaries were purposely drawn without regard to land ownership in order to capture the full breadth of the potential wildland fire risk. Coordination and participation by numerous landowners will be required for the successful implementation of the identified projects. Additional planning information on these projects is included in the Appendices.

Table 5.6. Proposed Community Defensible Zone Project Areas.

Project Areas	Total Treated Acres	Estimated Project Cost	Priority Ranking
Amity Lane Defensible Zone	38	$	High
Anatone Defensible Zone	803	$	Medium
Asotin Creek Defensible Zone	688	$	Medium
Boggans Defensible Zone	90	$	Medium
Cloverland Defensible Zone	166	$	Medium
Hwy 12 Corridor Defensible Zone	282	$	Medium
Joseph Creek Defensible Zone	157	$	Medium
Puffer Butte Defensible Zone	93	$	Medium
Snake River Defensible Zone	448	$	Medium
Sparrow Hawk Defensible Zone	48	$	Medium
West Clarkston Defensible Zone	4,384	$	High

Figure 5.2. Map of Proposed Community Defensible Zone Projects



5.7.3 Proposed Fuels Reduction Projects

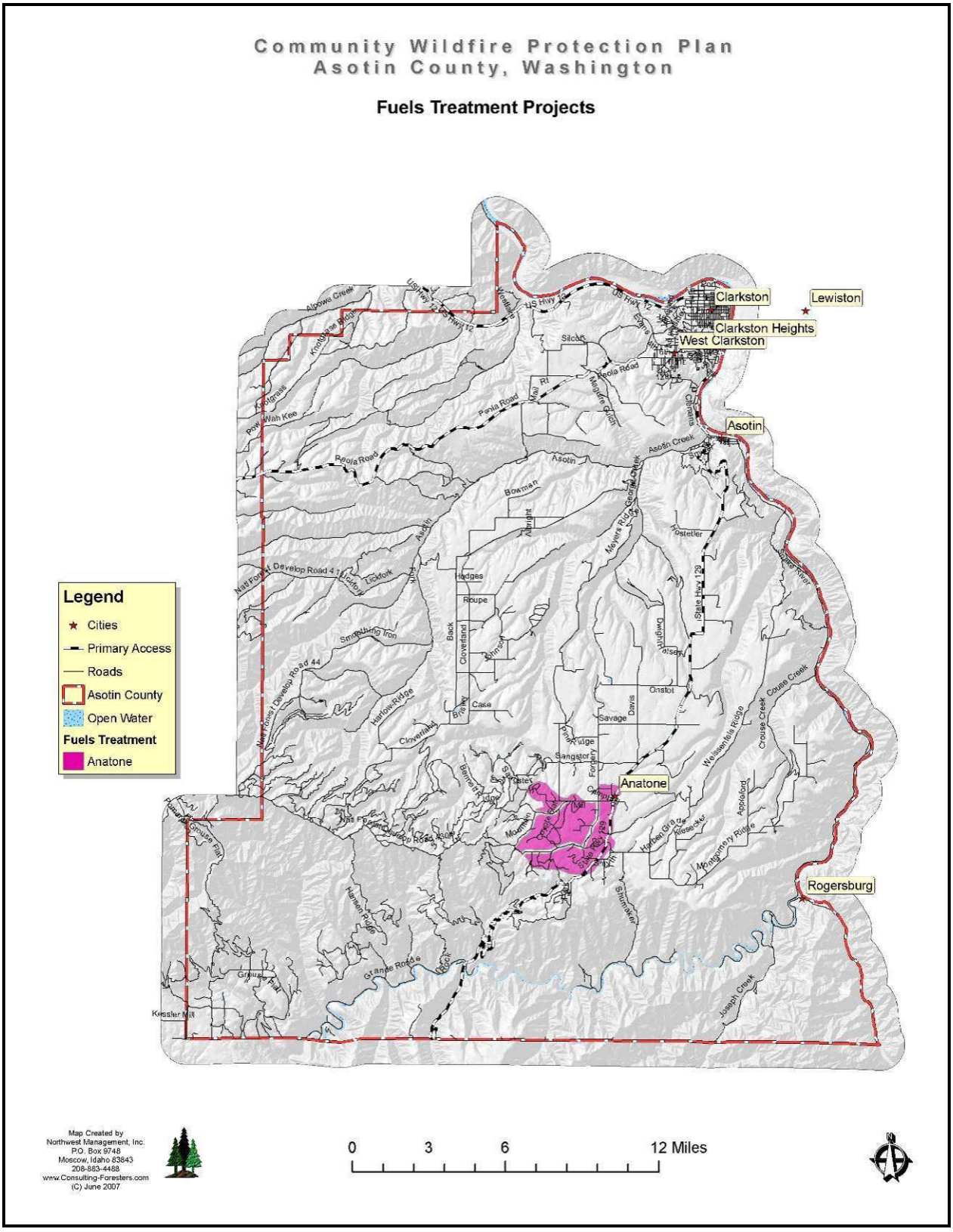
The following proposed fuels reduction projects were identified by the planning committee to be specific areas at high risk to wildfire due not only to the forest fuels, but also due to increased likelihood of an ignition. High use recreational areas or industrial operations in or near forestland fuels have an increased likelihood of an ignition from human or mechanical sources. The proposed fuel reduction projects will likely include more general fuels treatments such as forest health improvements in the surrounding area in conjunction with enhanced fire safety precautions. Installation of escape proof fire pits, barbeque stands, designated trails, and restricted use of fireworks can help reduce the ignition risk in recreational areas, while having numerous fire extinguishers on site and creating a maintained fuel break between mechanical operations and forestlands can decrease the ignition risk in industrialized areas.

The estimated project cost was based on $200 per acre of treatment. Cost estimates assume that no revenue was generated by the removal of timber or other product. The Washington Department of Natural Resources, U.S. Forest Service, Bureau of Land Management, Asotin County Conservation District, and/or the Blue Mountain RC&D may take the lead on implementation of many of these projects; however, project boundaries were purposely drawn without regard to land ownership in order to capture the full breadth of the potential wildland fire risk. Coordination and participation by numerous landowners may be required for the successful implementation of the identified projects.

Table 5.7. Proposed Fuels Reduction Project Areas.

Projects Areas	Total Acres	Estimated Project Cost	Priority Ranking
Anatone Fuels Reduction	5,704	$1,140,800	Medium

Figure 5.3. Map of Proposed Fuels Reduction Projects



5.7.4 Proposed Roadside Fuels Treatment Projects

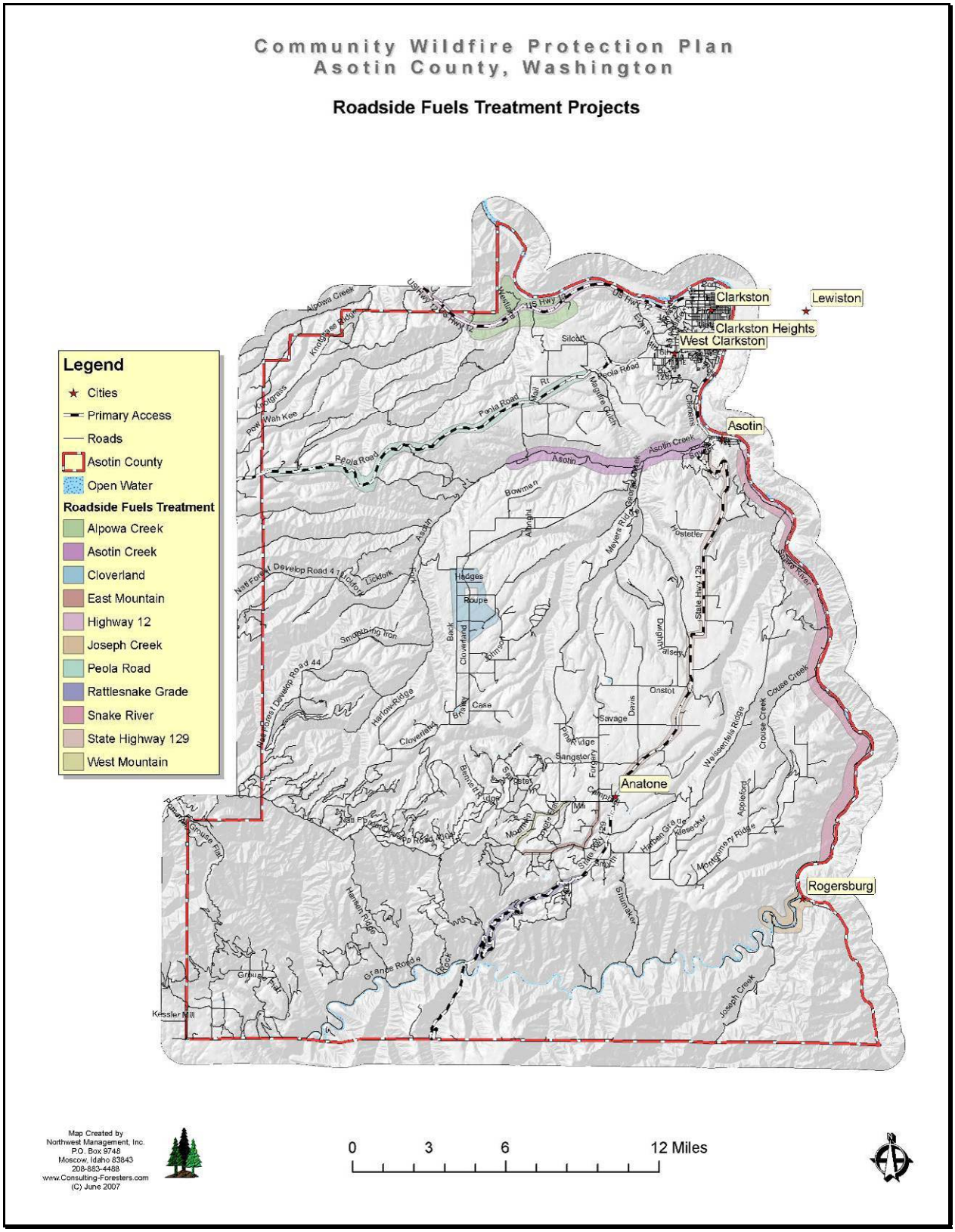
The proposed roadside fuels treatment projects are access corridors identified by the planning committee as being potentially unsafe for both ingress by emergency responders and egress in the event of an emergency evacuation due to wildfire. Treatments within the project areas will be site specific, but will likely include precommercial or commercial thinning within 200 feet from each side of the road, herbicide applications, and brush removal with the intent to create a fuel break along the road corridor. Prescriptions may include more intense removal of trees and other vegetation within 5 to 100 feet of the road and reduced intensity removal farther out. This technique will help lessen the intensity of a wildfire and may bring a crown fire to the ground before it reaches the road. Specific site conditions may call for other types of fuels reduction and fire mitigation techniques as well. Furthermore, in many areas, it may also be necessary to conduct additional environmental analyses before project implementation. The estimated project cost was calculated by assuming an average treatment cost of $700 per acre of treatment.

The Washington Department of Natural Resources, U.S. Forest Service, Bureau of Land Management, Asotin County Conservation District, and/or the Blue Mountain RC&D may take the lead on implementation of many of these projects; however, project boundaries were purposely drawn without regard to land ownership in order to capture the full breadth of the potential wildland fire risk. Coordination and participation by numerous landowners will be required for the successful implementation of the identified projects. Additional planning information on these projects is included in the Appendices.

Table 5.8. Proposed Roadside Fuels Treatment Projects.

Roadside Fuels Treatments	Approximate Acres	Estimated Project Cost	Priority Ranking
Alpowa Creek Roadside Fuels (excluding Highway 12)	207	$144,847	High
Asotin Creek Roadside Fuels	582	$407,318	High
Cloverland Roadside Fuels	451	$315,579	Medium
East Mountain Roadside Fuels	253	$177,211	Medium
Highway 12 Roadside Fuels	622	$435,125	High
Joseph Creek Roadside Fuels	414	$290,002	Medium
Peola Roadside Fuels	832	$582,633	Medium
Rattlesnake Grade Roadside Fuels	558	$390,702	Medium
Snake River Roadside Fuels	1,006	$703,998	High
State Highway 129 Roadside Fuels	924	$646,610	Medium
West Mountain Roadside Fuels	168	$117,316	Medium

Figure 5.4. Map of Proposed Roadside Fuels Treatment Projects



5.8 Regional Land Management Recommendations

Reference has been given to the role that forestry, grazing and agriculture have in promoting wildfire mitigation services through active management. Asotin County is a rural county by any measure. It is dominated by wide expanses of forest and rangelands intermixed with communities and rural houses.

Wildfires will continue to ignite and burn depending on the weather conditions and other factors enumerated earlier. However, active land management that modifies fuels, promotes healthy range and forestland conditions, and promotes the use of these natural resources (consumptive and non-consumptive) will insure that these lands have value to society and the local region. We encourage the US Forest Service, the Bureau of Land Management, State Parks, the Washington Department of Natural Resources, the Fish and Wildlife Service, industrial forestland owners, private forestland owners, and all agricultural landowners in the region to actively manage their wildland-urban interface lands in a manner consistent with reducing fuels and risks.

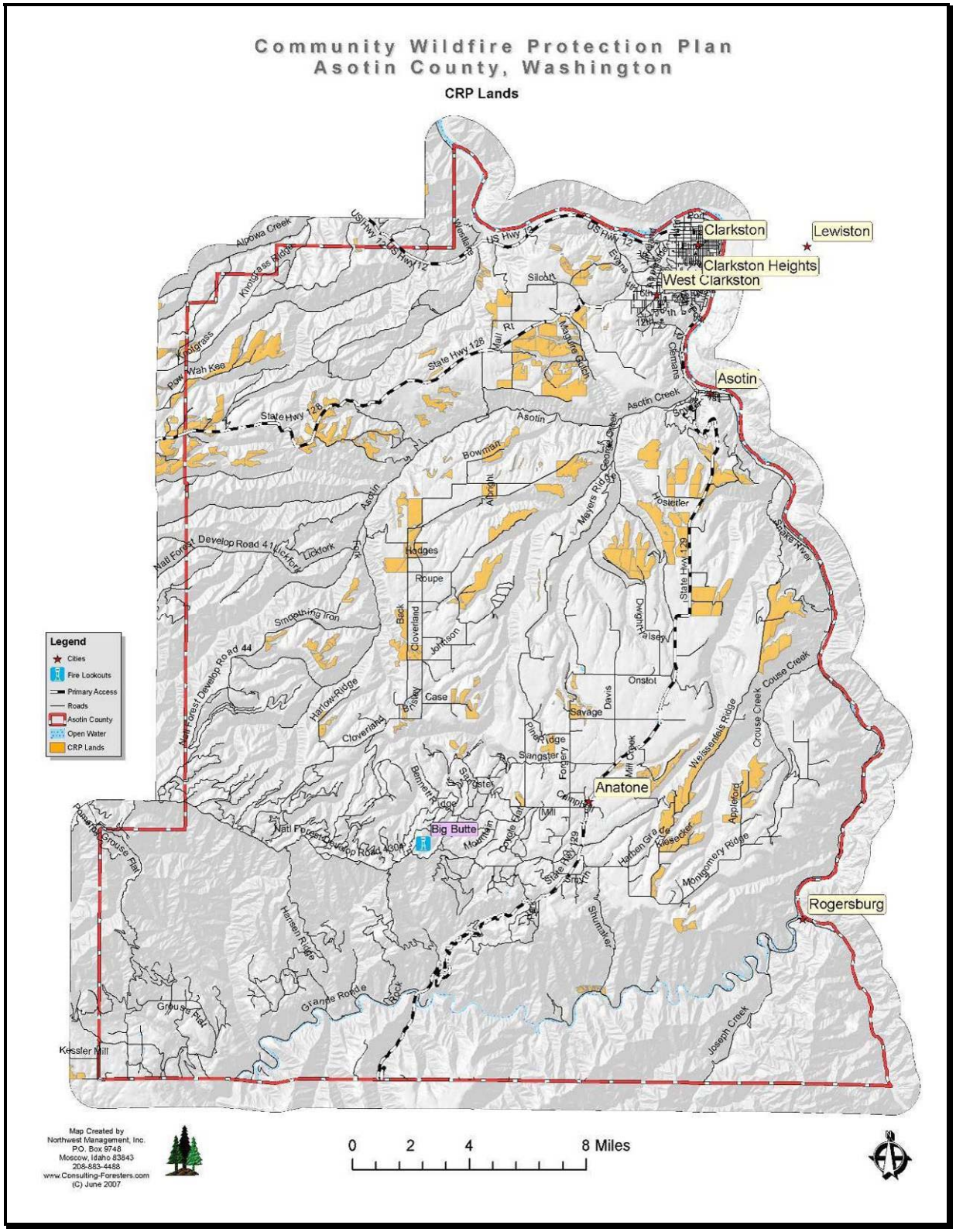
The following sections help identify were some of the land management agencies in Asotin County have planned, current, or proposed fuel reduction projects. Where possible, these projects have also been mapped and are presented in Appendix I. Knowing where agency projects are located can help this committee as well as other agencies prioritize their own fuels reduction projects. Simultaneous fuels reduction projects occurring on adjacent properties is not only encouraged, but this can also help cut down on costs.

5.8.1 Conservation Reserve Program

The fire hazard associated with the abundant Conservation Reserve Program (CRP) lands has become a prominent issue for all fire departments and emergency personnel in Asotin County. Wildlife habitat tends to influence the priorities for management on CRP more than wildland fire due to the need for abundant plant biomass for upland game bird populations and other wildlife. The lack of specific fuels management activities has resulted in the build up of a dense mat of highly flammable fuels as fields sit in fallow. Fires in this fuel type burns at very high intensities with large flame lengths, particularly under the influence of the strong winds common in Asotin County. Once ignited, CRP fires can burn very rapidly, jumping roads and other barriers that would normally inhibit a natural range or grass fire. Recently, uncontrolled CRP fires have burned hundreds of acres and threatened countless homes and critical infrastructure such as main highways and power poles in Washington.

It is the recommendation of this plan that Asotin County work with the Farm Services Agency to improve landowner's ability to manage fuels on CRP land, particularly around homes, roadways, and to create fuel breaks in large, contiguous tracts. Potential treatment options may include, but are not limited to, rotational grazing, haying, prescribed fire, and/or tilling. Asotin County believes active management will reduce the fire risk associated with these fuels and cut down on the number of CRP fires responded to each year. This is especially critical on those acres adjacent to homes, businesses, and critical infrastructure.

Figure 5.5. Map of Conservation Reserve Program Acres in Asotin County.



**Representation of CRP acres was supplied by the Farm Services Agency, but is dated as well as constantly changing. This map will be updated as is necessary during subsequent annual reviews of the Community Wildfire Protection Plan.

5.8.2 USDA Forest Service Projects

The following scheduled Pomeroy Ranger District projects are in various stages of planning. All of the listed projects must still be developed using the appropriate environmental documentation and public participation processes.

Charley Creek Winter Range Prescribed Fire Project

The intent of this burn entry is to reduce decadent grass and shrub in critical elk winter range, and increase quantity and quality of elk forage. This prescribed fire project was also designed to reduce natural fuel loadings.

Charley 5 Prescribed Fire, Charley 3 Prescribed Fire, Charley 4 Prescribed Fire

This project was designed to reduce activity slash created from the Charley Timber Sale, and reduce natural fuel loadings adjacent to Charley Timber Sale Units.

Hairpin Prescribed Fire

The intent of this project is to underburn remaining harvest slash and surrounding natural fuels within the Lick Timber Sale Area. Objectives are to reduce post-harvest activity fuels, and improve wildlife forage.

Dryfork Prescribed Fire

This project is combination of Forest Service and DNR land. The project was designed to underburn remaining harvest slash in the Lick Timber Sale Area on Forest Service land. Adjacent Forest Service natural fuels areas and DNR land was included to reduce build-up of natural hazardous fuels, and to secure holding lines. Other resource objectives for this are to remove descendant grass and shrubs, to increase growth and palatability of elk forage.

Great Ridge Prescribed Fire

This project designed to reduce ground and ladder fuels, reduce timber stand densities, improve wildlife forage and reduce noxious weeds. The intent of this prescribed fire entry is to 1) burn decadent grass and shrubs to encourage new growth and reproduction of palatable forage for wildlife, and decrease noxious weed populations and seed dispersal; 2) reduce accumulations of down woody fuels and ladder fuels to reduce potential for large scale wildfire and probability of active crown fire; and 3) reduce tree stand densities to improve stand health and susceptibility to disease and wildfire.

Red Hill Prescribed Fire Project

The objective of this project is to reduce activity harvest slash from Red Hill Timber Sale units and in surrounding natural fuels areas reduces ground fuel accumulations, reduce decadent grass and shrubs, decrease tree stand densities and reducing ladder fuels.

South/George Vegetation Management Project

No details on this project yet. It is the very early stages of planning. It will include timber harvest and fuels reduction projects, such as thinning from below, hand and mechanical, and prescribed fire.

Sweeney Timber Sale and Big Fire Timber Sale

These timber sales are part of the Upper Charley Subwatershed Ecosystem Restoration Project. They are currently being harvested. After harvest is complete, and units are released we will begin planning prescribed fire projects to reduce the activity slash created from the timber sale.

Skyline Danger Tree Removal Project

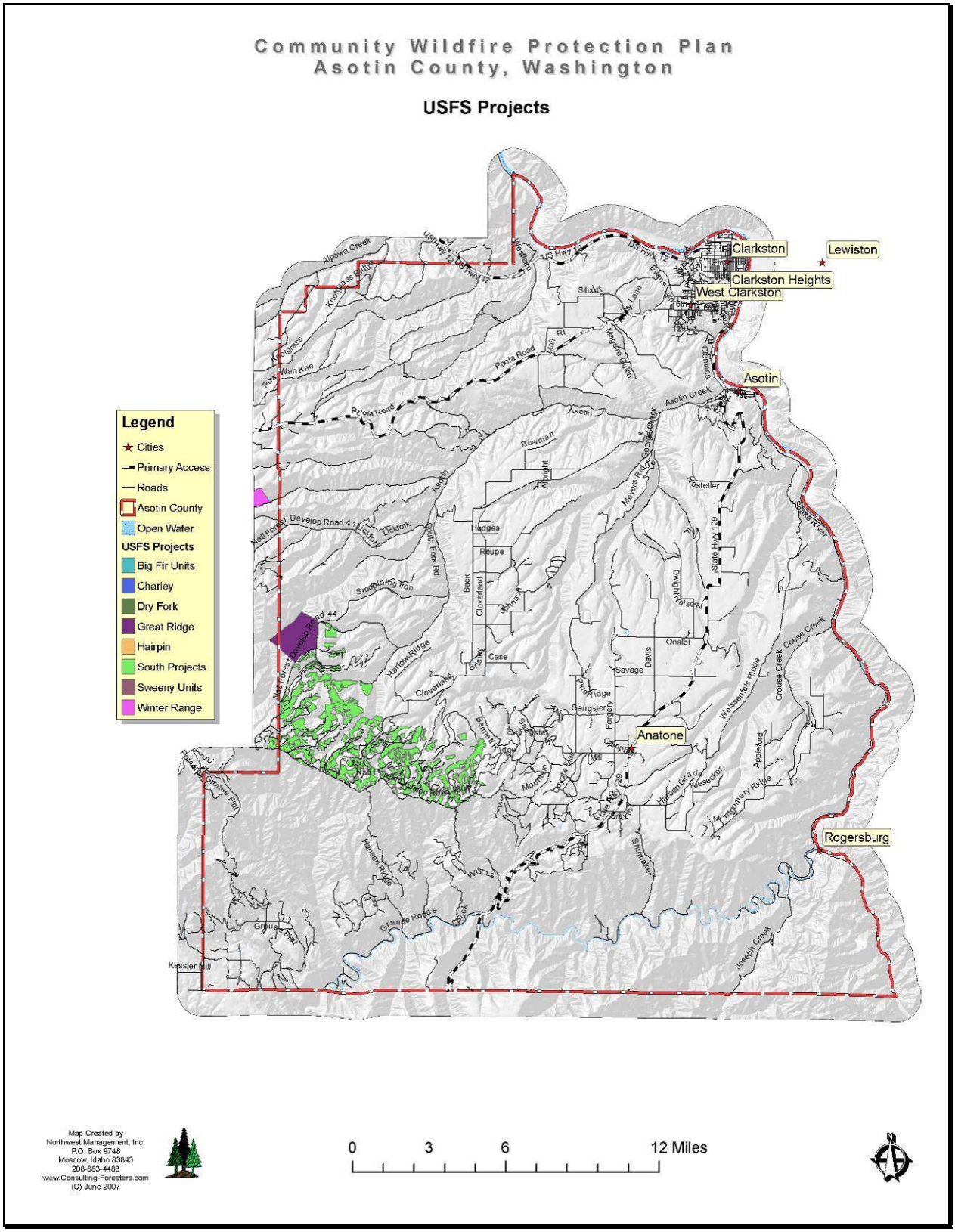
Columbia Complex fires spread across approximately 39,000 acres of the Pomeroy Ranger District. Effects from the fires varied widely from light underburn in some areas to areas of intense fire activity where almost all trees were killed. During fire suppression efforts, trees that posed an imminent danger were removed, however, additional standing dead, dying, and unsound green trees that represent a safety threat to the public and Forest Service personnel (both in and outside the burn footprint) are evident. In addition to areas affected by the fire, there are additional areas of danger trees outside the footprint of the fire.

Road Name	Road Number	Miles
Kendall Skyline Road	4600000	15.9
Twin Buttes Road	4600300	5.4
Slickear Recreation Residences	4600301	1.6
Godman-Teepee	4608000	6.4
	Total Miles	**29.3**

The following list of roads are schedule to receive operational maintenance. These are Level 2 roads designed for high clearance vehicles.

Road Number	Miles	Road Number	Miles
4600030	1.4	4600175	0.2
4600035	0.2	4608073	0.3
4600036	0.2	4608080	0.5
4600050	0.4	4608085	0.2
4600052	0.8	4608090	0.8
4600065	0.4	4608100	0.1
4600100	0.1	4608130	0.7
4600120	0.3	4608140	0.6
4600152	0.3	4610000	2.6
4600157	0.6	4610010	0.1
4600160	2.1	4610025	0.2
4600170	0.1	4610030	0.2
Total Miles	**6.9**	**Total Miles**	**6.5**

Figure 5.6. Planned Pomeroy Ranger District Projects in Asotin County.



Chapter 6

6 Supporting Information

6.1 List of Tables

6.2 List of Figures

6.3 Signature Pages

This Asotin County Community Wildfire Protection Plan has been developed in cooperation and collaboration with the representatives of the following organizations, agencies, and individuals.

6.3.1 Local Government

6.3.1.1 Resolution of Adoption by the Board of County Commissioners

RESOLUTION NO. 07-41

A Resolution Declaring County Support and Adoption of the Asotin County Community Wildfire Protection Plan

WHEREAS, the Asotin County Board of Commissioners supports the Asotin County Community Wildfire Protection Plan; and

WHEREAS, the Asotin County Community Wildfire Protection Plan will be utilized as a guide for planning as related to the National Fire Plan, the Healthy Forest Restoration Act, and other purposes as deemed appropriate.

NOW, THEREFORE, BE IT RESOLVED, the Asotin County Board of Commissioners do hereby adopt, support, and will facilitate the Asotin County Community Wildfire Protection Plan's implementation as deemed appropriate.

Adopted this 19 day of November 2007

ATTEST:

Vivian Bly
Clerk of the Board

ASOTIN COUNTY BOARD OF COMMISSIONERS

Doug Mattoon, Chairman

R.E. (Buck) Lane, Vice-Chairman

Don Brown, Member

APPROVED AS TO FORM:

Benjamin Nichols
Prosecuting Attorney #23006

or

Jane Bremner Risley
Chief Deputy Prosecuting Attorney #20791

6.3.1.2 Resolution of Adoption by the City of Clarkston

Resolution No. 2007-12

A Resolution of the City of Clarkston, Washington Declaring Support and Adoption of the Asotin County Community Wildfire Protection Plan

Whereas, the Clarkston City Council supports the Asotin County Community Wildfire Protection Plan, and

Whereas, the Clarkston City Council has participated in the development of the Asotin County Community Wildfire Protection Plan; and

Whereas, The Asotin County Community Wildfire Protection Plan will be utilized as a guide for planning as related to the National Fire Plan, the Healthy Forest Restoration Act and other purposes as deemed appropriate by the Clarkston City Council.

Now, therefore, be it resolved that the City Council of the City of Clarkston does hereby adopt, support, and will facilitate the Asotin County Community Wildfire Protection Plan's implementation as deemed appropriate.

This resolution is hereby adopted this 26th day of December, 2007.

Donna M. Engle

Donna M. Engle, Mayor

Authenticated:

Vickie Storey

Vickie Storey, City Clerk

6.3.1.3 Resolution of Adoption by the City of Asotin

RESOLUTION NO. 2008-404

A RESOLUTION DECLARING CITY SUPPORT AND ADOPTION OF THE ASOTIN COUNTY COMMUNITY WILDFIRE PROTECTION PLAN

WHEREAS, the City of Asotin supports the Asotin County Community Wildfire Protection Plan; and

WHEREAS, the Asotin County Community Wildfire Protection Plan will be utilized as a guide for planning as related to the National Fire Plan, the Healthy Forest Restoration Act, and other purposes as deemed appropriate.

NOW, THEREFORE, BE IT RESOLVED, the City of Asotin does hereby adopt, support, and will facilitate the Asotin County Community Wildfire Protection Plan's implementation as deemed appropriate.

Adopted this 14 day of January, 2008.

City of Asotin

By: Jim Miller, Mayor

Attest:

Patti Hanson, City Clerk

Approved as to form:

Scott C. Broyles, City Attorney

6.3.2 Signatures of Participation

This Community Wildfire Protection Plan and all of its components identified herein were developed in close cooperation with the entities listed.

Vicki Christiansen — 6/16/2008

By: Vicki Christiansen, State Forester — Date
Washington Department of Natural Resources

By: Steven M. Cooper, Chief — Date
Clarkston Fire Department

By: — Date
Clearwater Power

Megan Stewart — 11/19/07

By: — Date
Asotin Conservation District

Dave Fritts — 11-19-07

By: — Date
Guy Bennett Lumber Company

19 NOV 2007

By: — Date
U.S. Army Corp of Engineers

11/19/07

By: Monte Fujishin, District Ranger — Date
USDA Forest Service, Pomeroy Ranger Station

11-19-07

By: Noel Hardin, Chief — Date
Asotin County Fire District #1

11/19/07

By: Dave Weissenfels, Chief — Date
Asotin Fire Department

Signatures of Participation Continued . . .

By: Date
Washington State Parks and Recreation Commission

12-17-07

By: Dave Woodall Date
Washington Department of Fish and Wildlife

11/19/07

By: Jerry Hendrickson, President Date
Blue Mountain Resource Conservation and Development Council

11/19/07

By: Tera R. King, Project Manager Date
Northwest Management, Inc.

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King, Tera R. and V. Bloch. *Lead Authors.* 2008. Asotin County, Washington, Community Wildfire Protection Plan Appendices. Northwest Management, Inc., Moscow, Idaho. July 9, 2008. Pp. 43.

Last Page of Document

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