**VIII Mitigation Action Items and Opportunities**

**Introduction**

Union County is positioned in an area of Oregon that is considered a high wildfire prone location based on historic and current data. Until recent decades, issues of wildfire threat, effects, and risk were often treated more as a side conversation than a real possibility. The fire season of 2015 brought wildfire to the forefront of many local residents’ conversations. By this time, the CWPP committee was well underway in the development of this document.

This chapter is designed to disclose risk assessment issues identified within Union County that were brought forward during collaborative meetings of the CWPP committee with local fire protection agencies, cooperators, and members of the public. These issues guided the development of the mitigation and action items designed to improve conditions and reduce wildfire risk.

The overall process is tiered to policies and guidelines that provide directions at the national, state, and local levels in an effort to reach actions that can be used to meet wildfire risk mitigation strategies in order to protect life, property, and ecosystems.

**Policies**

* National, state, and local policies and guidelines that describe overall goals and objectives regarding wildfires in the wildland urban interface and communities at risk. Addresses the direction and need for wildfire risk assessments and wildfire mitigation through avenues such as a Community Wildfire Protection Plan or Geographic wildfire risk assessment.

**Community Wildfire Protection Plan**

* Area community collaborative risk assessment identifying goals, objectives, conditions and recommendations for wildfire mitigation. Identifies “issues” facing the assessment area that contribute to the inability to meet those goals and objectives.

**Wildfire Risk Mitigation**

* A process of reducing or alleviating loss of life, property, ecological function, and potential injury resulting from wildland fire, through overall risk assessment, providing strategies addressing temporal and/or spatial efforts, and improving planning and implementation processes in order to meet goals and objectives.

**Action Items**

* A specific recommendation, project or act/task utilized to achieve an outcome or desired result. These take into account the method by which mitigation strategies are carried out.

**Mitigation Measures Guidance**

The CWS has identified at a national level five basic factors that determine when, where, and how intensely wildfires burn: climate, topography, vegetation, ignitions, and suppression. Of these, three can be directly influenced by fire management – vegetation, ignitions, and suppression. Two, climate and topography, are realistically beyond the influence of wildland fire managers, but they cannot be ignored (CWS 2014).

Nationally there are four challenges that are considered high-priority barriers and critical success factors: managing vegetation and fuels; protecting homes, communities and values; managing human-caused ignitions; and effectively and efficiently responding to wildfire (CWS 2014). These are also applicable at a local level.

Mitigation and action items are supported by both local and national plans outlining recommendation and expectations needed to meet the policies and guidelines. These referencing documents are identified below with a description of how each supports the mitigation concepts within the CWPP. Many of the policies and guidelines also support one or more goals of this plan, which include: 1. Wildfire Response, 2. Fire-Adapted Communities, 3. Resilient Landscapes.

 **A corresponding number was assigned after each bullet to show which of the three goal(s) is being supported in reference to mitigation efforts.**

The National Cohesive Wildfire Strategy

1. Addresses the importance of promoting community and homeowner involvement in planning and implementing actions to mitigate the risk posed by wildfires. (1) (2)
2. Recommends pursuing municipal, county, and state building and zoning codes/ordinances that mitigate fire risk to protect life and property. (1)(2)
3. Uses mitigation strategies that ensure protection of infrastructure and values such as: watersheds, cultural, recreational sites, transportation, utilities, communities, etc. (1) (2)
4. Connects with local experts to *sustain* mitigation efforts. (2)(3)

The Regional Natural Hazards Mitigation Plan for Northeast Oregon has a mission of: “*Create a disaster-resilient Northeast Oregon”.* It supports mitigation efforts by:

1. Maintaining that mitigation is the responsibility of the “Whole Community” – individuals, businesses/industries, state/local government, federal government. (2)
2. Recognizing the need for pre- and post-disaster mitigation project grants. (1),(2)
3. Reduces the risk from natural hazards by identifying resources, information, and strategies for risk reduction. (1)
4. Union county wildfire probability and vulnerability are both ranked at the highest level in the Hazard Mitigation Plan.

The National Wildfire Coordinating Group through *Wildland Urban Interface Wildfire Mitigation Desk Reference Guide* 2014

1. Provides a reference to assist with integrating wildland urban interface mitigation principles into national wildland fire training. (1)
2. Promotes common wildfire mitigation language and culture. (1)
3. Recognizes Fire adapted communities, Firewise, Ready Set Go, Living with Fire. (2)
4. Recognizes the national CWS.
5. Promotes the concept of “Whole community approach”. (2)
6. To become a fire adapted community is a continuous process that requires maintenance and adaptation to ensure actions are effective. (2)

Presidential Policy Directive/PPD-8, 2011. Directive PPD-8 recognizes wildfire threat as one of priorities of natural disasters and threats to the nation.

1. National Preparedness in terms of threats, including natural disasters encompassing actions taken to plan, organize, equip, train, and exercise to build and sustain the capabilities necessary to prevent, protect against, mitigate the effects of, respond to, and recover from those threats. (1),(2), (3)
2. Identify risk of specific threats and vulnerabilities including objectives to mitigate that risk.
3. Includes integrated planning that covers: prevention, protection, mitigation, response, and recovery. (1), (2), (3)

CRF-2011-title44-vol1-part 206 Federal Disaster Assistance including Subpart N – Hazard Mitigation Grant Program, section 206.431, 206.434, 206.435

1. 206.431 defines *Activity* to mean any mitigation measure, project, or action proposed to reduce risk of future damage, hardship, loss or suffering from disasters. (1),(2),(3)
2. Eligibility includes; 206.434 (c) (5), be cost effective and substantially reduce the risk of future damage, hardship, loss, or suffering resulting from a major disaster. (1),(2),(3)
3. 206.434 (c) (5) (i) addresses a problem that has been repetitive, or a problem that poses a significant risk to public health and safety if left unsolved. (1), (2)
4. 206.434 (d) (2) Eligible activities include projects of any nature that will result in protection to public or private property. (1), (2)
5. 206.435 Project identification and selection criteria. (a) Identification. It is the State’s responsibility to identify and select eligible hazard mitigation projects. (b) Selection. (1) Measures that best fit within an overall plan for development and/or hazard mitigation in the community, disaster area, or State: (1), (2)
6. 206.435 (c) Other considerations. Consideration should be given to measures that are designed to accomplish multiple objectives including damage reduction, environmental enhancement, and economic recovery, when appropriate. (1),(2),(3)

The NE Oregon Regional Natural Hazard Mitigation Plan and FEMA define mitigation as:

 *“….the effort to reduce loss of life and property by lessening the impact of disasters…. through risk analysis, which results in information that provides a foundation for mitigation activities that reduce risk.”*

For the purpose of this document mitigation is:

 *“A process of reducing or alleviating loss of life, property, ecological function, and potential injury resulting from wildland fire, through overall risk assessment, providing strategies addressing temporal and/or spatial efforts, and improving planning and implementation processes in order to meet goals and objectives.”*

Mitigation strategies include policy changes, projects, modifications of current protocols, education and outreach, long- and short-term approaches, big picture designs, multi-jurisdictional activities, fuel breaks, and vegetation modification.

Mitigation measures for the WUIZ were designed with the three goals of the Cohesive Wildfire Strategy in mind.

* Restore and maintain landscapes
* Create fire-adapted communities
* Improve wildfire response (CWS 2014)

**Progress Monitoring**

There are multiple forms available in Appendix L that can be used to identify progress, obstacles, lessons learned during the implementation of the mitigation measures and action items.

Mitigation Progress Report

The Progress Report form is separated to address the three goals of the CWS. It allows for a detailed assessment of the individual mitigation measures, it’s desired outcome, and what steps were taken to reach the desired outcome.

Project Achievement Form

The Project Achievement form focuses on a specific project designed to meet one of the three goals and corresponding mitigation measures. It allows for documenting a project’s intent, actions taken, expected verse observed results, funding mechanisms, partnerships, challenges and other pertinent information that may improve future efforts.

Annual CWPP Evaluation Form

This form assesses the individual goals and objectives identified by the committee in Chapter II. This form provides a broad CWPP committee group approach to scoring achievements within the county in relation to the plan document and its intent. It looks at three primary areas of concern for each of the objectives: DEADLINES: expected deadlines of completion, COST: costs (below cost, at cost, above cost). DESIRED OUTCOME: results were below, met, or exceeded expectations. It records the overall group assessment of the year through a numerical rating**.**

**Action Items**

Action items are a broad approach to accomplishing the recommended mitigation. Action items are a recommendation, project, act, or task to achieve a desired result. These are suggested methods by which the mitigation strategies may be implemented. One mitigation measure could potentially have several recommended action items that strive to achieve the desired outcome. Action items are not necessarily time-sensitive, spatially restrictive, or automatically consistent with current approaches. It was important to include new, innovative ideas in an attempt to improve efficiency and effectiveness of meeting desired results. Application of action items is achieved through applying more specific *concepts* toward implementation activities. The mitigation measure, action items, and applied concepts all build toward achieving the desired condition and meeting the guiding principles, core values, and the three goals outlined within the National CWS.

The Cohesive Wildfire Strategy outlined 11 guiding principles and core values that support the three primary goals. Four of these clearly support all the CWS goals, with the remaining seven more closely fitting one particular goal:

1. *Reducing risk to firefighters and the public is the first priority in every fire management activity.* Mitigation actions are designed for improving programs and management activities in an effort to create a safe working and living environment in terms of wildfire, shared knowledge and understanding of living in fire prone environments, and emphasis on protection of life first and foremost.
2. *Sound risk management is the foundation for all management activities.* Regardless of the mitigation or action item identified, the outcome for all activities is mitigation/reduction of wildfire risk. Education programs, fire agency improvements, and landscape treatments all have one overarching objective in mind: managing inherent risks and risks identified during this CWPP process.
3. *Fire management decisions are based on the best available science, knowledge, and experience, and used to evaluate risk versus gain.* The CWPP has taken the lead on this, using the most current data for the risk assessment. Information was obtained from multiple agencies, the 2014 West Wide Risk Assessment, recent research and a collective interagency, cooperator, and public knowledge base of county information.
4. *Fire management programs and activities are economically viable and commensurate with values to be protected, land and resource management objectives, and social and environmental quality considerations.* Budget shortfalls have resulted in developing collaborative, economical ways to meet the three goals and establish the mitigation action items outlined in this CWPP. Programs and projects should be designed that take a big picture approach where multiple objectives can be achieved. Often, large scale multi resource management considerations can be economically viable while protecting both ecological and social interests.

Through a collaborative effort, the CWPP Steering Committee identified county wildfire issues. Once the county issues and mitigations were acknowledged, they were then tiered to one of the three CWS goals, with some showing slight overlaps into more than one overarching goal. **These lists are not final, but are fluid in nature where amendments can be added if a new situation or strategy arises that needs to be addressed.**

**Rationale**

Relates the need for mitigation and action items back to the County and local communities.

**Desired Condition**

This is the preferred outcome once the mitigation action items have been implemented.

**How to implement and apply concepts**

A variety of options, not exclusive to those listed, that provide a means implementing the desired actions and meeting the desired outcome. There are multiple ways to reach desired outcomes; the CWPP acknowledges that new avenues and tools will arise during the process.

**CAR or area directly in need**

Locations may change as projects are developed and work is accomplished. Locations listed were brought out during the CWPP process but does not limit the addition of new areas. This block is also a good location to add any additional information toward monitoring, such as new locations or areas accomplished.

**Timeline**

Insert a desired time frame for accomplishment. Funding sources are often time-sensitive and can be reflected here, as well as an actual accomplishment date.

**Funding Source**

Sources recommended for use and funding sources that have been used for this mitigation. This provides tracking of funding that is helpful for annual renewal and requests. **Additional grant and application web sites for funding can be found in Appendix – I Funding Mechanisms.**

**Wildfire Response**

**Goal: *All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildfire management decisions.***

Core values and guiding principles of the wildfire response goal provide a path to developing mitigation action items. Activities that support interagency management decisions and are designed to achieve safe and effective fire management programs within Union County cannot be overemphasized. Fires that start on public lands and move onto private land, threatening communities, particularly in the west, are a major problem. The vast expanses of area and finite amount of fire protection resources, often less than one fire station per 100 square miles, contributes to the problem (CWS 2014). Core values and guiding principles identified in the CWS that emphasize management decisions of wildfire response include:

1. *Local, state, tribal, and Federal agencies support one another with wildfire response, including engagement in collaborative planning and the decision-making processes that take into account all lands and recognize the interdependence and statutory responsibilities among jurisdictions.* The CWPP was built on a collaborative effort forum between fire response agencies, cooperators, and members of the public. Identifying program impediments toward interagency fire support and jurisdiction will create a more effective Union County fire coalition. Developing opportunities such as training to meet standardized qualifications, common radio frequencies, and department upgrades establishes knowledge in capability awareness.
2. *Where land and resource management objectives differ, prudent and safe actions must be taken through collaborative fire planning and suppression response to keep unwanted wildfires from spreading to adjacent jurisdictions.* Shared knowledge of agency fire suppression missions and objectives can minimize confusion for both fire response personnel and agency managers when multi-jurisdictions are involved during wildfires. Preseason exercises and planning provide opportunities to work together, eliminating potential issues during an actual fire incident.
3. *Safe, aggressive initial attack is often the best suppression strategy to keep unwanted wildfires small and costs down.* Coordination of multi-agency resources is vital to aggressive initial attack on wildfires. Thunderstorms rarely deliver a single fire start. Multi-fire start situations can be aggressively suppressed if resource draw down is recognized in advance and reserve personnel and equipment are identified through interagency coordination efforts. Interagency coordination must include a strategic view of all available qualified resources including federal, state and local resources.

Wildfire response in Union County is comprised of multiple agencies, which include federal, state, county, rural, and city. The public and private land coverage are proportionately even in area covered, incorporating a mix of protection from rural, city and county fire agencies.

The La Grande Airport hosts a federal air base comprised of an air-tanker base, seasonally contracted helicopters with buckets, two national repel helicopters with crews, and two national Interagency Type I Hotshot crews. Depending on fire situations within the country, these resources could be committed elsewhere at times of local fires.

The county also has two designated dispatch centers that serve as contacts for both the public and agency employees. The Blue Mountain Interagency Dispatch Center (BMIDC) provides dispatch services to both federal and state wildland fire agencies. The primary mission of the dispatch center is supporting all wildland fire incidents within the BMIDC footprint. This includes initiating initial attack fire response through interagency-designed protocols and providing support to incidents with personnel, aircraft and equipment at a local, state, and national level. BMIDC also provides large fire support and resource tracking for field-going personnel.

The local 911 dispatch center primarily pages local fire resources and secondarily tracks and supports incidents within the county to include fire (structure, wildland, vehicle, etc.) in addition to addressing local police and EMS needs. To coordinate response between wildland fire agencies and rural and city fire districts, BMIDC will track all resources responding to wildland fire incidents within the BMIDC footprint, while the 911 center will continue to provide initial paging and additional support as requested by local responding units.

Efforts since the 2005 CWPP have been to initiate action to address several ongoing wildfire response issues. First, there has been work started toward increasing Union County’s wildfire response capacity through meeting and updating local department needs. Through an MOU with the Forest Service on surplus equipment, the county rural fire departments have obtained numerous pieces of equipment they may otherwise have not acquired. Secondly, the county’s co-op prevention program has higher multi-protection agencies participating in the school and community programs. However, the prevention program lead has recently retired which has caused the formation of the Grande Ronde Fire Prevention Association and created a funding need to maintain the county-wide prevention program. Third, efforts are being made to increase rural fire department training in wildland fire qualifications to increase county-wide capacity for utilizing local resources when state and federal resources are stretched.

Fire organizations continued to build partnerships in an effort to effectively work together with emphasis on safety, life, and property. Meetings with rural fire departments, cooperators, and members of the public have identified a comprehensive list of issues facing the county in terms of wildland fire. Using the list of issues developed, the CWPP committee identified mitigation measures and action items that support agency guidance and expand to new innovative ways to achieve the goals.

The following tables address issues identified in Union County through the collaborative process. The issues mitigation action items were divided out based on the three key goals of the CWPP - Fire Response, Fire-Adapted Communities, and Restore and Maintain Landscapes. Some of the issues and mitigations could potentially address more than one of the goals, in which case the mitigation number will be referenced under the additional goal.

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| Issue | There is no thorough assessment of all county structures and residences. Current data is not up to date.  |
| **Mitigation # 1** | **Develop a complete assessment of all structures within Union County.**  |
| ACTION ITEM(s) | 1. Systematically visit all known residences in the county through an integrated agency assessment.
2. Dovetail onto INTERRA
3. Design system to input data accumulated for easy GIS access.
4. Establish reporting system of new residences within the county through tax lot information.
5. Collaboratively develop critical information needs of residents to aid in fire response and protection.
6. Link structure information to the NE Oregon Natural Hazard Mitigation Plan 2014.
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| Rationale | Union County has a high number of dwellings in wildland urban interface that are identified by address only. These addresses reflect homes with long driveways and are not indicative of actual home location. There is need for a comprehensive structure map and a plan to provide fire managers and homeowners key focus points for fire mitigation and provide fire response agencies with specific locations of actual structures versus street address. CWS stresses the importance of pursuant of building and zoning codes/ordinances that mitigate fire risk to protect life and property.  |
| Desired Condition  | A database and mapping system that can be periodically updated through the county tax assessor’s information. Updated current home locations and conditions that provide accurate information to assist resources during wildfire response.  |
| How to implement and apply concepts | 1. Develop conduit to pass information off to non-local protection resources and management teams.
2. Develop funding for a position that can input and maintain data.
3. Design distribution channels for fire response personnel with current information regarding structures in the area.
4. Can be linked to evacuation plans for sheriff’s departments for easy home access.
5. Design in new construction ordinances and statutes that pertain to new construction and upload of information to database.
6. Work collaboratively with University students for opportunities to meet needs of education and county.
7. Create a county wide “coordinator” position to facilitate data base management and uploading of intel as it is acquired.
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| CAR or areas directly in need | All CAR and WUIZEntire County |
| Timeline |   |
| Funding Sources |  |

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| Issue | No known decision protocol for identifying when to evacuate residents and activate conflagration act.  |
| **Mitigation # 2** | **Design a county wide pre-fire suppression plan that includes an evacuation plan, trigger points/management decision points for evacuation orders, and conflagration activation.** |
| ACTION ITEM(s) | 1. Organize a mapping exercise for defining and identifying trigger points.
2. Develop a plan with consistent protocols for interagency use.
3. Written plan with maps for interagency and public distribution.
4. Utilize and modify any existing evacuation plans and processes that are designed for multi-agency assistance.
5. Create structure/land information such as INTERRA utilizing tax lot information local knowledge.
 |
| Rationale  | 1. All agencies provide structure protection in some fashion and share the same road access as the public.
2. A pre-designed and shared interagency evacuation plan can minimize confusion during critical incidents for both the public and firefighters thereby improving safety while reducing risk and exposure.
3. Sharing the Plan with the Blue Mountain Interagency Dispatch Center (BMIDC) will provide global communications of the same information in the event of wildfire evacuation.
4. Provide plan knowledge to local cooperators that are likely to participate in an evacuation such as law enforcement agencies, American Red Cross, etc.
5. Presidential Policy Directive/PDD-8, 2011. Recognizes the need to integrate planning that covers prevention.
 |
| Desired Condition  | An Organized, timely evacuation of residents.  |
| How to implement and apply concepts | 1. Increase local support for timeframes of evacuation through open communications well in advance.
2. Involve emergency organizations outside of fire: Red Cross, Sheriff Dept., Public Works Department.
3. Provides opportunities to link to conflagration act.
4. Review protocols and decision points annually through coordinated meetings with homeowners and interagency simulations with the county fire response agencies and involved cooperators.
5. Assure logistical procedures are known and in place for people needing assistance, livestock and pets.
6. Review lessons learned and/or experiences of others.
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| CAR or areas directly in need | This is applicable to all Communities at Risk and areas within the WUIZ where residents may be found.  |
| Coordinating Organization | Lead: Union County City and Rural Fire DepartmentsParticipants: State and Federal fire management and other agencies |
| Timeline | Develop at a minimum management decision criteria for areas of CAR within the first year of CWPP completion. Develop evacuation decision criteria for high forest use areas within the first two years of CWPP completion. Ongoing Efforts |
| Funding Sources |  |

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| Issue | Rural departments are functioning with minimum required Personal Protective Equipment (PPE) and no surplus materials.  |
| **Mitigation #3** |  **Improve type and amount of available equipment to meet all agencies’ requirements, allowing for immediate availability of replacement supplies.** |
| ACTION ITEM(s) | 1. Update and maintain Rural and City departments’ wildland PPE/Equipment
2. Improve surplus equipment programs that allow for easy transfer of supplies from one agency to another.
3. Increase available funding and grant options for equipment acquisition.
4. Create a needs list and fill any gaps with updated equipment.
5. Identify shortages of Interface fire apparatuses.
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| Rationale | Past federal surplus fire equipment programs have been of tremendous benefit for local rural fire departments. Maintaining and improving upon these types of programs is a win/win for improving and maintaining the collaborative efforts, consistency of equipment, and safety of fire personnel. Equipment is essential for firefighter safety. Presidential Policy Directive/PDD-8, 2011 emphasizes preparedness in terms of natural disasters, including actions for equipment and sustained capabilities for protection.   |
| Desired Condition  | Rural Fire Departments are well furnished with up-to-date tools and equipment to safely do the job.  |
| How to implement and apply concepts | 1. Use available grant programs geared toward fire response for Rural Fire Departments.
2. Develop collaborative agreements that provide easy transfer of equipment.
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| CAR or areas directly in need | Entire County |
| Timeline |   |
| Funding Sources | Expand use of FEPP and FFP – Utilize Grant Program to acquire funds. **FEMA – Opportunity Title 9: Firehouse Subs Equipment Grant** – dedicated to improving life safety capabilities of emergency-service entities in communities served by Firehouse Subs. **FEMA – Opportunity Title 10**: **Firefighters Charitable Foundations** **Grant** – provide assistance to local fire/disaster victims, fire prevention education, volunteer fire department equipment purchase, community safety programs.FEMA - **Opportunity Title 14: Georgia-Pacific Bucket Brigade Grant** – supports volunteer and small town fire departments for equipment (water pumps/hoses/nozzles), resources, programming, and safety education materials. **FEMA – Opportunity Title 18: Lacy and Connor Search and Rescue** **Fund** - The purpose of the fund is to provide financial assistance to law enforcement agencies and nonprofit organizations involved in search-and-rescue operations. Equipment, training, PPE, medical-care equipment.  |

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| Issue | Expand local roles and experiences with wildland firefighting in order to create additional state and federal capacity.  |
| **Mitigation #4** |  **Identify opportunities to integrate local resources with existing Type 3 IMTs and/or develop a local incident management team.**  |
| ACTION ITEM(s) | 1. Provide course training opportunities to meet Federal Standards for wildland firefighting through uniform and cross-agency training.
2. Increase roles and experience by designing training opportunities for local fire resources.
3. Identify individuals currently with both wildland and structure qualifications to mentor others.
4. Develop incentive programs to encourage cross training.
5. Provide crosswalk opportunities where applicable and appropriate.
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| Rationale | Potential for reduced safety issues with cross training of structure and wildland fire fighting. Increases understanding of firefighting terminology and allows for common language between fire protection resources. Increases resource options during times of high draw down of personnel. Creates an Interagency fire response that is likely to increase opportunities for successful fire suppression and demonstrates multi-agency cooperation to the public sector. Wildland Urban Interface Wildfire Mitigation Guide 2014 promotes common wildfire language and culture.  |
| Desired Condition  | Local Fire Organizations have an increased role in wildland firefighting and can increase local capacity for State and Federal partners.  |
| How to implement and apply concepts | 1. Design a list of personnel interested or in need of training and use a rotation of personnel if needed.
2. Develop liaison roles to help draw interest and slowly incorporate individuals into the IMT team structure.
3. Integrate non-traditional partners into the Type III teams

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| CAR or areas directly in need | City and Rural fire departments.  |
| Timeline |   |
| Funding Sources |  |

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| Issue | Blocks of land within the county are under a variety of protection statuses. There are lands with no structure or wildland protection, lands with only wildland protection, and areas with only structure protection. (See Chapter XI for details) |
| **Mitigation #5** |  **Fire agencies should collaboratively chart, with affected landowners, a path to incorporate these into protection areas.**  |
|  ACTION ITEM(s) | 1. Identify response agency with fire authority, staffing needs, equipment.
2. Meet with homeowners within the unprotected areas, reach agreement on incorporating properties into protection jurisdiction
3. Opportunities to expand existing protection districts or establish new ones.
4. Educate homeowners on protection boundaries, opportunities, and consequences.
 |
| Rationale | Oregon Administrative Rules (OAR) support addressing unprotected lands: These rules allow for assessment of lands to determine zone type with the State of Oregon, depending on the zone 1 - costs, zone 2 - tax levy (allowing for establishing a rural fire protections district). These blocks of land support residential structures with no current fire protection jurisdiction, yet still receive protection through OAR Chapter 476 with post fire billing of property owner. Establishing a known fire jurisdiction will quicken fire response, resolve cost issues, and establish protection jurisdiction, which could otherwise result in the potential for increased fire size and property loss. CFR-2011-title44 section 206.434 (d) (2) Eligible activities includes projects of any nature that will result in protection to public or private propertyPresidential Policy Directive/PDD-8, 2011. Includes integrated planning that covers protection and response.  |
| Desired Condition  |  All lands in Union County are under fire protection jurisdiction.  |
| How to implement and apply concepts | 1. Set lands with dwellings as a priority for protection and eventually incorporating all unprotected lands into a fire agencies jurisdiction.
2. Determine land zone according to OAR 476.310 through 476.340 and work with landowners to incorporate properties for protection.
3. Utilize statutes that incorporate new construction into a protection district.
4. Renew and develop Memorandum of Understanding among agencies to increase protection areas.
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| CAR or areas directly in need |  Within the entire county there is approximately 45,611 acres of unprotected lands, including Valley lands west of Cove, Lower Cove Area, and a thin strip of land adjacent to Mt. Glenn road, HWY 203 along foothills to Hot Lakes, SE of Union and west of Hwy 203.  |
| Timeline |  |
| Funding Sources |   |

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| Issue | Protection areas and satellite stations should complement one another.  |
| **Mitigation #6** | **Identify locations that would benefit from new satellite stations and begin filling in any identified gaps where stations are needed.**  |
| ACTION ITEM(s) | 1. Fire agencies need to design a plan with maps identifying areas that would provide the highest coverage based on geographic placement.
2. Apply for funding to initiate a needs-based assessment of protection resources that includes: personnel, equipment, facilities, funding, and other key information.
3. Establish protocol for staffing at substations and retaining staffing levels at primary stations to support response to substations / remote areas.
4. Increase fire apparatuses and strategically locate them at an existing site or a new site.
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| Rationale | Union County has a wide scattering of small communities. There is a need to create opportunities to reduce the response time spent by suppression resources in reaching an incident. Improves area coverage within the county and reduces overextending current resources, particularly in times of high fire occurrence. Opportunities to provide a presence and further improve public relations in remote areas. CFR-2011-title44 section 206.434 (d) (2) Eligible activities include projects of any nature that will result in protection to public or private property.Presidential Policy Directive/PDD-8, 2011. Includes integrated planning that covers protection and response. OAR 478.260, 478.300,  |
| Desired Condition  | Provide protection capabilities to all remote communities through satellite stations.  |
| How to implement and apply concepts | 1. Utilize outputs from Fire Protection and Fire Structure Vulnerability assessment in Chapter XI and Chapter VII respectively, to aid in determining areas of high and extreme ratings and causal factors.
2. Reach out to affected communities to educate them on current protection status and concerns under existing status.
3. Assess level of community interest for facility and personnel staffing.
4. Search out surplus material/equipment
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| CAR or areas directly in need | Starkey, Kamela, Spout Springs, Palmer Junction, Perry-Hilgard, Non-protected locations. Carry over from 2005 CWPP – explore adding a substation for Imbler Rural Fire Department. Develop Lower Cove substation for Cove Rural Fire Dept.  |
| Timeline |  |
| Funding Sources | National Fire Plan [Assistance to Firefighters Station Construction Grants (SCG)](https://www.fema.gov/rules-tools/assistance-firefighters-station-construction-grants)FEMA –Opportunity Title 8: E-One Tell Your Story Fire Truck Grant – a competition that gives fire departments the opportunity to win a new commercial pumper by demonstrating a need. FEMA – Opportunity Title 9: Firehouse Subs Equipment Grant |

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| Issue |  Several water sites have limited access for large apparatuses, and finding alternative sites reduces resources firefighting time.   |
| **Mitigation #7** |  **Reduce drafting time and increase site options that will accommodate large engines and tenders.**  |
| ACTION ITEM(s) | 1. Extend boat ramps for summer water access.
2. Develop a pressurized system with locations to eliminate long drafting times.
3. Develop sites in the areas identified with limited or no access to accommodate large equipment.
4. Work with landowners to develop sites in strategic areas.
5. Improve large equipment road access and turn arounds to existing water sites.
6. Explore opportunities to create dry standpipes with improved access.
 |
| Rationale | Application of water to suppress wildfires and support fire resources can be a deciding factor on fire size. Increased options of fill sites can improve overall firefighting resources efficiency and effectiveness.Increases response capabilities by lowering turnaround time when needing to refill engines. Meets Presidential Policy Directive/PDD-8, 2011. Identify specific vulnerabilities, including objectives to mitigate that risk.  |
| Desired Condition  | A sufficient number of strategically located water fill sites that provide access and drafting capabilities for large engine/tenders.  |
| How to implement and apply concepts | Work with landowners to create water fill sites in strategic locations. Increase/add large enough turn around spots for large equipment access at existing sites.Installation of Fire Hydrants where feasible.Ensure agency water source use agreements are in place well in advance.Work with agencies for extensions of boat ramps during low water levels.  |
| CAR or areas directly in need |  Anthony Lakes, Wolf Creek, Pilcher ReservoirOther identified sites  |
| Timeline |  |
| Funding Sources |  |

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| Issue |  Some fire agencies (Rural) have little to no technological equipment for more effective geo-referencing that is consistent with other agencies and lack skills to use technology.  |
| **Mitigation #8** | **Provide technology that is compatible/consistent with other cooperating agencies.**  |
| ACTION ITEM(s) | 1. Acquire any surplus up-to-date equipment.
2. Determine the current most commonly used equipment and begin process of acquiring additional equipment.
3. Bulk order at lower costs
 |
| Rationale |  Provides fire resources the capabilities to access local terrain maps, up-to-date fire perimeter maps, road access points. Increases effectiveness of fire resources in both fire team support and fire line environments. Provides the ability to pre-load critical information in advance, such as structures, infrastructure, trigger points, escape routes and safety zones. Federal Assistance for Wildlfire Response and Recovery provide avenues for funding through partnerships with state forestry agencies; these programs provide funds for pre-fire community wildfire protection planning and preparation, hazard mitigation, equipment, and personnel training. |
| Desired Condition  | Inter-agency ability to share essential information to improve fire response capabilities and safety using up-to-date technology.  |
| How to implement and apply concepts | 1. Provide training for fire departments for mapping and geo-reference on site.
2. Obtain grant monies for acquiring equipment.
3. Collaboratively work among agencies to acquire equipment.
 |
| CAR or areas directly in need |  All affected fire resource agencies.  |
| Timeline |  |
| Funding Sources |  [Assistance to Firefighters Grants](https://www.fema.gov/assistance-firefighters-grant) through FEMA |

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| Issue |  Limited training opportunities and qualifications skills for rural and structural personnel to fight wildland fires.  |
| **Mitigation # 9** | **Uniform training and across agency development training for ALL agencies.**  |
| ACTION ITEM(s) | 1. Provide opportunities for training/experience with FS and ODF agency personnel.
2. Provide qualified instructors to provide training needs where scheduling accommodates volunteers with full time jobs – weekend, evening sessions.
3. Coordinate with local community colleges that conduct weekend training. – TVCC
4. Interagency cross training using simulations.
 |
| Rationale |  Deficient fire qualifications and skill levels increase safety concerns in situations that are already inherently risky. A common training platform ensures that all fire resources have a consistent knowledge base. Developing training schedules to meet those with steady jobs increases the likelihood of gaining and maintaining fire qualifications. The National Wildfire Coordinating Group through *Wildland Urban Interface Wildfire Mitigation Desk Reference Guide 2014* promotes the concept of “whole community approach”.Presidential Policy Directive/PPD-8, 2011. Directive PPD-8 recognizes wildfire threat as a priority and promotes preparedness including training and sustained capabilities.  |
| Desired Condition  |  Training instructional program that is approved by all agencies in meeting wildland firefighting qualifications.  |
| How to implement and apply concepts | 1. Determine a need-based training of individuals and courses and then identify local instructors qualified to teach classes – FS, ODF, retired, contractor. Establish course dates at least six months in advance of training opportunities for highest attendance.
2. Identify the qualification needs for Federal Agencies.
3. Identify internship opportunities
4. Create a county-wide “coordinator” position to facilitate off hour wildland fire training and coordinate federal and state agency training.
 |
| CAR or areas directly in need |  Rural and Structure fire resources that participate in wildland firefighting incidents.  |
| Timeline |  |
| Funding Sources | [Assistance to Firefighters Grants](https://www.fema.gov/assistance-firefighters-grant) through FEMAOpportunity Title 11: Fireman’s Fund Heritage Program – national community based providing funds for equipment, fire prevention tools, firefighter training, fire safety education and community emergency-response programs.  |

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| Issue | Separate information storage and dispatch centers can create confusion for resource check-in and information sharing.  |
| **Mitigation # 10** |  **Develop common storage and information sharing between dispatch centers.**  |
| ACTION ITEM(s) | 1. Connect BMIDC with Union County 911 to create backup reporting system and reduce confusion of resources onsite.
2. Co-locate access and sharing of information in common locality.
3. Update dispatch software.
4. Develop reporting protocol where rural and city fire status is shared.
 |
| Rationale | Resource reporting is sometimes doubled with the two dispatch offices when fire resources are on scene of an incident. Resource safety is priority and dispatch is required to track down the resource after hours or when a check-in status in not received, although one dispatch center has been in communication. The Oregon State Fire Marshall Strategic Plan 2015 – 2019. Goal 2 – Expand the OSFM’s use of technology resources for internal and external customers. 2.1 Boost and maintain data storage and management. 2.2 Provide user-friendly technology, supporting systems, and documents. (OSFM 2015) |
| Desired Condition  | Clear and concise one-step resource reporting with common links of communication between dispatch centers.  |
| How to implement and apply concepts | 1. Bring two dispatch offices together to jointly seek solutions.
2. Develop compatible software between dispatch centers.

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| CAR or areas directly in need | Blue Mountain Interagency Dispatch Center and 911 dispatch |
| Timeline |  |
| Funding Sources |   |

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| Issue | It is difficult for rural and city fire departments to recruit and retain quality volunteers from local communities.  |
| **Mitigation # 11** |  **Develop a firefighting recruitment program to increase the level of interest.**  |
| ACTION ITEM(s) | 1. Advertise training opportunities available for community members.
2. Firefighting presence at local gatherings (booth) with displays and simple physical challenges to draw interest.
3. Develop fun competitions between local fire agencies open to the public, demonstrating cohesiveness within the county.
4. Develop recruitment program designed for various groups including: high school, college, and other community members.
 |
| Rationale  | Increasing the numbers of community members as part of fire organizations increases the available personnel to pull from, particularly during times of high draw down level, provides increased connection to local residents, and potential for new information sharing opportunities. Inability to properly staff rural and city fire departments is a high safety matter with potential high cost losses of both life and property. CRF-2011-title44-vol1-part 206 Federal Disaster Assistance including Subpart N – Hazard Mitigation Grant Program 206.434 (d) (2) Eligible activities includes projects of any nature that will result in protection to public or private propertyPresidential Policy Directive/PPD-8, 2011 build and sustain the capabilities necessary to prevent, protect against, mitigate the effects of, respond to, and recover from those threats that pose the greatest risk to the security of Nation. Oregon State Fire Marshal Strategic Plan 2015 – 2019. Goal 4 – Recruit, develop, and sustain a professional and diverse workforce |
| Desired Condition  | To eventually have an adequate pool of individuals to select for positions. One large enough that provides a surplus of personnel that can be used as backup during critical times.  |
| How to implement and apply concepts | 1. Establish a position or shared job duties to focus on initiating recruitment ideas and outreach. There is also potential for a small interagency recruitment team to work together throughout the year with bi-annual showings of the local fire agencies.
2. Create internship programs that increase interest and opportunities
3. Conduct education forums on the importance, benefits, and rewards of being a volunteer.
4. Benefits for District Volunteers. OAR 478.390 Investments authorized to fund length of service awards for volunteer firefighters.
 |
| CAR or areas directly in need | Rural and Structural Fire Agencies |
| Timeline |  |
| Funding Sources |  [Staffing for Adequate Fire & Emergency Response Grants (SAFER)](https://www.fema.gov/staffing-adequate-fire-emergency-response-grants) |

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| Issue |  Some rural local roads are not maintained, with an increasing amount of vegetation encroachment making entry with fire apparatuses difficult or impossible.  |
| **Mitigation # 12** | **Develop an implementation plan to *maintain* public road right-of-ways to minimize fire risk including state highways.** |
| ACTION ITEM(s) | 1. Develop an implementation plan to maintain key public road right-of-ways to minimize fire risk.
2. Utilize roads to create fuel breaks for defensible location.
3. Prioritize roads, including state highways, based on strategic fuel breaks.
4. Map all areas with egress issues that would pose safety issues for both firefighter and public.
 |
| Rationale |  Firefighting personnel utilize roads for several reasons, including fire and community access, defensible space, and evacuation routes, all of which involve firefighter and public safety. These roads are also often directly situated for infrastructure access during emergencies. High levels of vegetation are counterproductive toward firefighter strategies and tactics. National Cohesive Wildfire Strategy supports mitigation strategies that ensure protection of infrastructure and values including transportation routes. CRF-2011-title44-vol1-part 206 Federal Disaster Assistance 206.434 (c) (5) (i) promotes addressing problems that are repetitive, or a problem that poses a significant risk to public health and safety if left unsolved. |
| Desired Condition  |  Build a plan to track access road treatments and asset up a rotating periodic maintenance schedule to ensure initial work and follow through maintenance are completed. Data base to track work accomplishments.  |
| How to implement and apply concepts | 1. Reference any existing evacuation plans and property assessments that may provide current road knowledge.
2. Utilize any assessment being completed concurrently with road information, county/state road data.
3. Use West Wide Risk assessment mapping identifying high fire threat and areas that exhibit as priority locations.
4. As projects materialize, address specific road issues within the project to protect lives.
5. Address issue during new construction as statutes for maintaining access.
 |
| CAR or areas directly in need | Initial focus on all areas currently exhibiting fire behavior characteristics of high spread rates, flame lengths that limit impede resource use, potential for crown fire.  |
| Timeline |  |
| Funding Sources |   |

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| Issue |  Lack of information regarding critical access roads to structures. Information such as roadside vegetation, ingress/egress, turnarounds (large engines), road composition/surface, width, barriers, and bridge allowance.  |
| **Mitigation # 13** |  **Complete assessment of roads and driveways where data is missing. Connect assessment with INTERRA project currently underway.**  |
| ACTION ITEM(s) | 1. Design protocol/data base for collecting and storing information for easy access during fire incidents.
2. Conduct questionnaire surveys during public forums such as Wild Hog Days, County Fair, etc.
3. Consolidate any known assessment(s) already completed through the county, during wildfires, by local fire protection agencies.
4. Work with local INTERRA contacts to develop complete database.
 |
| Rationale | Road access issues often lead to extended response times in rural areas (CWS 2014). The federal register describes preliminary criteria for evaluating risk to communities Volume 66, no. 3 page 753 shows Risk Factor 3 Infrastructure, situation #2 for communities is cited as limited access routes and situation # 3 multiple entrances and exits well equipped for fire trucks, and wide loop roads.  |
| Desired Condition  | Emergency fire responders have data uploading access for local road conditions. Improve upon decision capabilities by having the most current situational awareness where road conditions are concerned.  |
| How to implement and apply concepts | 1. Hire personnel to accomplish countywide roads assessment.
2. Assign individuals from local fire protection units to accomplish assessment within their specific protection areas.
3. Dovetail onto structure assessments where applicable. (INTERRA example)
4. Educate landowners on proper access needs for large apparatuses.
5. Provide self-assessment techniques to landowners to expedite information gathering.
 |
| CAR or areas directly in need |  Thief Valley Area – river creates a barrier for access to other side. Road connection to other side below dam would help. Current situation has long, extended response times.  |
| Timeline |  |
| Funding Sources |   |

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| Issue |  Develop an all-hands-all - lands approach to wildfire response, including closest forces response and draw down move up across agency boundaries.  |
| **Mitigation #14** | **Develop a county wide mutual aid agreement that allows for interagency utilization of local resources across the board.**  |
|  ACTION ITEM(s) | 1. Create a common operating protection plan with all agencies.
2. Identify strength and weaknesses of current collaborative agreements.
3. Develop mutual aid or MOUs.
 |
| Rationale | Rural Fire Departments are currently picked up under ODF on a work agreement in order to be involved with a wildfire under federal agency jurisdiction. Policy Direction supports this action. Taken from the Guidance for Implementation of Federal Wildland Fire Management Policy 2009, Management Intent and Implementation Actions were the following recommendations: 1. Recognize that particular budget processes and external influences will affect capability and capacity. Realize efficiencies by incorporating other federal, tribal, state, and local agencies and nongovernmental organizations to meet peak demands for resources. Preseason agreements are an integral part of preparedness (Management Intent #10 Preparedness).
2. Agencies will develop agreements to efficiently utilize other federal, state, local, and non-governmental resources (Management Intent #10 Preparedness).
3. Agencies will streamline interagency transfer of funds to reduce fiscal inconsistencies. (Management Intent #13 Standardization).

OAR 477.406 (1) The forester and a forest protective association may enter into a contract or agreement with each other, or jointly, …… for the prevention and suppression of fire on forestland or on land other than forestlands or both, to prevent and suppress fires.  |
| Desired Condition |  To have a streamlined interagency transfer of funds between all fire protection agencies in Union County.  |
| How to implement and apply concepts | 1. Develop agreements to clarify jurisdictional inter-relationships and define roles and responsibilities among local, state, tribal, and federal fire protection entities, based on each organization’s enabling protection authorities and assistance/mutual aid responsibilities including streamlined fund transfers.
2. Review current agreements and make needed modifications.
3. Search out already-existing agreements in other geographic areas that meet this need.
 |
| CAR or areas directly in need |  All fire protection agencies.  |
| Timeline |  |
| Funding Sources |   |

**Fire Adapted Communities**

**Goal: *Human populations and infrastructure can withstand a wildfire without loss of life and property.***

The Cohesive Wildfire Strategy (CWS) through the this goals has identified some guiding principles and core values to direct fire and land management activities in terms of fire adapted communities. Included in these are:

1. *Reducing risk to firefighters and the public as a first priority.* Working with members of the public sharing information will provide across the board knowledge prior to a wildfire incident that could potentially save lives. Through pre-fire actions such as the reduction of structure flammability and property fuels-vegetation treatment measures, an environment is created for safer suppression actions, ingress and egress of both the public and firefighters.
2. *Improve and sustain both community and individual responsibilities to prepare for, respond to, and recover from wildfire through capacity-building activities.* Collaboratively working with communities in understanding how land and structure preparation ahead of time can provide them with a degree of comfort, knowing steps were made to improve the likelihood of structure survivability. Wildfire impacts can have a tremendous emotional impact if unprepared to respond during a potential wildfire threat.
3. *Rigorous wildfire prevention programs that are supported across all jurisdictions.* Developing a cooperative, multi-agency prevention program that works with members of the public to reduce the number of just human caused fires will significantly lower the number of fire starts that in turn will reduce the fire response calls particularly at the height of fire season.

During a wildland-urban fire a home ignites from two possible sources: directly from flames (radiant and convective heat) and/or from firebrands accumulating directly on the home (Cohen 1991). Structure survival involves several factors that influence fire ignition; and if an ignition occurs, the survival of a structure involves factors that influence fire suppression (Cohen and Saveland 1997). Structure survivability is impacted by pre-wildfire preparation in and around the properties to reduce structure ignitability, and the effectiveness of suppression resources that influence by their availability, firefighting capabilities, and accessibility options to the properties.

Homes in and near forested lands in the west are increasing at rapid rate. Over the past 50 years there have been 220 million acres identified as WUI in the United States, with populations exceeding 120 million people residing in 50 million housing units. This has created a growth rate of 300 percent in the WUI, more than the general population growth rate for the same time period (IAWF 2013).

Wildfires in the west are increasingly costly in many aspects from suppression efforts to stop the fire, to the loss of life and property that is occurring annually. Suppression costs alone have increased over the last 30 years from $240 million to $2.1 billion in 2015 (NIFC 2015). This does not take into account the loss of life, homes, resource values, and infrastructure. In 2015, California lost 475 homes in the Butte Fire of 70,868 acres. The Valley Fire burned 76,067 acres destroying 1,280 single-family homes and 27 multi-family residences (FEMA 2015). The California Department of Insurance released an article indicating that these two fires alone totaled $1 billion in insured losses as of January 2016. The $1 billion dollars does not include all surplus insurance fire claims or damages to public infrastructure such as roads and utilities. Oregon, Washington, and Idaho also experienced a number of wildfires involving structures, such as the Lawyer Complex in Idaho that lost 50 homes and 75 outbuildings while the Okanogan Complex in Washington destroyed 154 structures and cost three firefighters their lives. Oregon’s Canyon Creek Complex near the town of John Day also lost over 89 structures while over 900 residences were threatened.

Union County was no exception in 2015. Several wildfires plagued northeast Oregon including the Phillips Fire, which started on August 1. At approximately 2,600 acres, the fire threatened approximately 200 structures, the town of Elgin, and miscellaneous structures dispersed in the Sanderson Road area north of the town of Summerville and west of Elgin. Evacuation levels were put at “ready” with an estimated fire cost of $7.5 million dollars.

Increasing losses and suppression costs have shifted emphasis for both structural and wildland fire managers to expand work in an effort to speed up establishing fire adapted communities throughout the west. A concerted effort involving fire agencies, cooperators, and members of the public is needed. It is the desire of this CWPP to provide collaboration-based efforts that build toward living in fire prone environments and strive for adapting processes that create and maintain properties that can withstand a passing wildfire and allow for safe, defensible options for fire suppression resources to provide protection.

Although public input was limited at meetings, input was acknowledged through the mitigations provided by those in attendance. It was found that since the first 2005 CWPP local community protection projects in and near landowners homes have drawn a higher degree of interest and participation. Project proximity of the proposed treatment areas to homeowners property appears to play a key role in generating public interest.

Several members of the CWPP committee were also involved in a fire simulation in the spring of 2015, with various members of the local cooperators where needs were recognized. Additionally, survey forms were taken into account on concerns of those who participated. The CWPP committee incorporated several meeting results where emphasis was put on creating fire adapted communities within the county. The following issues, mitigations, and action items are a cumulative list developed from those meetings, designed for addressing communities living in fire prone environments.

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| Issue |  Several responsibilities have been identified with no known capacity or individual assuming the duties to ensure follow through with community and fire agencies.  |
| **Mitigation #1**  |  **Develop a position of County Fire Coordinator that can accomplish multiple missions.**  |
|  ACTION ITEM(s) | 1. Identify specific roles and responsibilities such as database upkeeps.
2. Single contact for public and fire agencies in all hands all lands implementation
3. Coordinate with adjacent counties on cross boundary information sharing.
4. Update CWPP on new information and completed actions.
5. Coordinate training to increase rural certifications increasing overall wildfire response capacity.
6. Coordinate prevention efforts to include federal, state and local efforts
 |
| Rationale | There are several programs that are currently being administered by multiple individuals and agencies. By having a coordinator, consistency can be accomplished in training fire qualifications, training programs, up to date resource inventories and databases, and plan developments. This position can take an active role in planning and meeting the needs of the county in emergency response through coordinated efforts with fire agencies and members of the public.  |
| Desired Condition  |  Integrates federal, state and local wildfire training, prevention and response. |
| How to implement and apply concepts | 1. The position can be hosted by a local fire management organizations or consider a multi-county position to improve funding opportunities.
2. Apply for two-year funding for a pilot first.
3. Reach out to geographic areas that currently support a similar position.
4. Modify a current position description to meet the needs of Union County.
 |
| CAR or areas directly in need |  Countywide or multi-county wide with all agencies and community members |
| Timeline |  |
| Funding Sources |   |

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| Issue | Public Information/Fire Prevention Officer retired and funding may not be available for replacement. |
| **Mitigation #2** | **Create a countywide multi-agency position to continue the work and build on the existing program.**  |
|  ACTION ITEM(s) | 1. Develop a multi-agency funding mechanism to continue the position.
2. Develop a multi-level organizational structure for positions so community programs can continue to move forward with fire education.
3. Establish a Joint Information Center for all agencies.
 |
| Rationale |  Having a multi-agency position allows for a common terminology and message for delivery to the public. In Union County, human-caused fires made up 38 percent of all fires from 1999 to 2008 and 47 percent of all fires within the WUI Zone area that is closer to communities. Potential benefits of this position would be to increase community connections; reduce the number of human caused fires through education and prevention programs; design a joint information center; involvement in the local Type III Incident Team Organization; prioritize and maintain an interagency blog.  Presidential Policy Directive/PPD-8, 2011 recognizes actions taken to prevent natural disasters through integrated planning.  |
| Desired Condition  | Reduce the number of human-caused fires within the county, increase the wildfire education, and provide fire adapted community solutions to the public through a multi-agency forum. |
| How to implement and apply concepts | 1. Involve all agencies in developing an agreement to fund and manage this position.
2. Seek out other positions of this type that can be tiered to meet Union County needs.
3. Possibly look at adjoining counties in developing a sub-regional/multi-county position to increase likelihood of a position and evaluate the needs of splitting it in the future.
4. Roll responsibilities into County Fire Coordinator position should one be approved.
 |
| CAR or areas directly in need |  The WUI Zone is a high priority for reducing human caused fires.  |
| Timeline |  |
| Funding Sources |  **Fire Prevention & Safety Grants through FEMA** -The Fire Prevention & Safety (FP&S) Grants are part of the Assistance to Firefighters Grants (AFG) and support projects that enhance the safety of the public and firefighters from fire and related hazards.Volunteer Fire Assistance (VFA Grants) Oregon.govWildland-Urban Interface (WUI) Grants |

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| Issue |  Lack of interest and the public is unaware of home vicinity conditions and fire risks.  |
| **Mitigation #3** | **Develop public education programs on infrastructure and homeowner risks, options, and funding opportunities.**  |
|  ACTION ITEM(s) | 1. Set up a group that includes fire agencies and local residents to reach out to public.
2. Identify successful case studies both in and outside the county and identify guest speakers who have experienced wildfire.
3. Create educational programs that tier toward fire risk mitigation in the community.
4. Conduct field trips to areas within the county that have already taken initiative.
5. Support homeowners with “boots on the ground” concepts to provide onsite assistance.
6. Utilize recent wildfire issues that played a key role in protecting life and property. i.e.: road access, structure composition, property treatments.
 |
| Rationale | Collaboration of fire management agencies, cooperators, and residents within the county is vital to creating a true fire adapted community. Understanding existing conditions that lead to fire risk is essential in creating defensible space, home survivability, and safe deployment of fire-fighting personnel.  Oregon State Fire Marshal Strategic Plan 2015 – 2019, Goal 1 – Engage communities and stakeholders in Office of State Fire Marshal programs and services. OAR 477.406 (1) The forester and a forest protective association may enter into a contract or agreement with each other, or jointly, …… for the prevention and suppression of fire on forestland or on land other than forestlands or both, to prevent and suppress fires.  |
| Desired Condition  | An all-inclusive community understanding and involvement in fire risk reduction and fire education.  |
| How to implement and apply concepts | 1. Work with local fire science programs at high school and college level to design an accredited course (even one hour credit) to draw interest.
2. Utilize a Public Information/Fire Prevention position to take lead and work with fire agencies in getting the message out to communities.
3. Use Mailer messages as a venue to get the work out.
4. Provide opportunity for members of the public to observe wildfire simulation exercises.
 |
| CAR or areas directly in need |  Union County Landowners |
| Timeline |  |
| Funding Sources |   |

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| Issue |  Multiple locations throughout the county within the WUI where large groups gather on an annual basis.  |
| **Mitigation #4** | **Develop individual fire plans, evacuation plans, and defensible space plans for these locations.**  |
|  ACTION ITEM(s) | 1. Work with activity organizers on annual dates and extent of geographic areas used.
2. Educate landowners/organizers on fire risk mitigation and evacuation protocols.
3. Focus should be for protection of life and property first.
4. Overlap location of events with protection status to determine a lead agency.
 |
| Rationale |  Several large gatherings occur throughout the county during the height of fire season. Many of these areas support week-long summer camp style settings for children and young adults. Some of these sites are located a distance from protection resources, resulting in long fire response times. With limited fire resources, these plans can provide preparedness opportunities. A fire plan will provide for some common protocols outlining protection of life as the number one concern. Most areas where events occur are under land protection only and often do not have structure protection. CWS stresses the importance to promote community and homeowner involvement when planning and implementing actions to mitigate the risk posed by wildfires. Presidential Policy Directive/PPD-8, 2011 recognizes wildfire preparedness in terms of actions taken to plan, respond to and recover from wildfire threat.  |
| Desired Condition  |  Each gathering site will have an individual plan designed to reduce fire risk and protect life and property.  |
| How to implement and apply concepts | 1. The agency with protection authority for the area should take the lead on the coordination and plan development.
2. If the area is not under protection authority, determine a lead in cooperation with local fire agencies. (Prevention personnel, County Coordinator)
3. Onsite visits and opportunities for education could be incorporated with fire risk reduction efforts.
4. Completed fire plan should be developed and shared with gathering groups, protection agencies, and local dispatch units.
 |
| CAR or areas directly in need |  Camp Elkanah, Cove Christian camp, River Bend – Hilgard, 4-H camp Summerville, Other?? |
| Timeline |  |
| Funding Sources |   |

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| Issue |  There is limited coordination for fire risk and fire emergency with local cooperators. i.e.: utility companies.  |
| **Mitigation #5** |  **Develop relationships with companies/cooperators that are likely to pose a fire risk or be involved in fire suppression situations.**  |
|  ACTION ITEM(s) | 1. Utilize cooperators list developed during CWPP process.
2. Conduct several additional meetings revolving around cooperators’ potential impacts to fire suppression efforts.
3. Identify fire suppression role cooperator may be involved with at time of a fire.
4. Continue to incorporate cooperators into the fire simulations in advance of fire season to educate all involved on potential interactions.
 |
| Rationale | During May 2015, some cooperators participated in the fire simulation conducted by Union County fire management agencies. This resulted in education of all parties on both the extensiveness of fire suppression and the overall likely involvement by cooperators. Some cooperators were involved only initially while others were involved for the entire fire duration. Current unforeseen risks can be communicated by working with cooperators ahead of time, providing opportunity for corrective actions prior to a fire incident. CWS supports mitigation strategies that ensure protection of infrastructure and values such as transportation, utilities, etc.  |
| Desired Condition  |  Cooperators are involved in both fire prevention efforts and supporting suppression efforts.  |
| How to implement and apply concepts | 1. Send out letters to local cooperators identified in CWPP process.
2. Increase cooperator types and numbers in the Fire Simulations.
3. Conducted annual meetings with cooperators to share information on changes to cooperator coverage areas, fire protection coverage, and/or lessons learned from past fire experiences.
4. Update agreements, plans, and CWPP to address new information.
5. Develop opportunities for fire prevention; examples include railroad fires, powerline fires
 |
| CAR or areas directly in need | Power companies, Gas companies, American Red Cross, Local and State Law Enforcement, Railroad. Rinehart Hill and McCallister are hard pulls for trains and high fire start areas.Face of Mount Emily – sections of power lines are prone to coming down.  |
| Timeline |  |
| Funding Sources |   |

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| Issue |  Existing homes continue to be at risk in many areas and new home construction considerations should include wildfire risk considerations.  |
| **Mitigation #6** | **Use home improvement checklists that exist, develop new protocol for addressing home conditions to improve wildfire survivability.**  |
|  ACTION ITEM(s) | 1. Educate the public in structure vulnerability and simple modifications that improve chance of positive outcome during wildfires.
2. Review/develop codes for Fire Siting Standards
3. Include landscape and ingress/egress issues that improve defensibility.
4. Work with interested landowners to be an advocate.
 |
| Rationale | The number of structures located in forested/grassland areas is continually increasing in comparison to the stagnant level of protection resources. In an effort to increase home protection and structure survivability fire siting standards should be applied to new construction. . Union County Zoning Partition and Subdivision Ordinance (UCZPSO) Fire siting standards. Specific section would depend on zone e.g. A-4 zone would be section 5.08. Senate Bill 360 for Oregon provides steps to create a more effective Interface protection system including education, prevention, and establishing standards for Interface property owners in managing or minimizing fire hazards and risk. The Oregon Forestland-Urban Interface Fire Protection Act supports enlisting the aid of property owners to turn fire-vulnerable urban and suburban properties into less-volatile zones where firefighters may more safely and effectively defend homes from wildfires. OAR 477.059 Obligation of landowner to comply with standards….(A) Fire hazards or risks on land within a forestland-urban interface due to the presence of structures or the arrangement or accumulation of vegetative fuels (B) Other fire hazards or risk or combination. CWS - The management option of developing building codes where ordinances will have a positive effect on reducing home loss was likewise considered. |
| Desired Condition  |  Decrease potential for structure loss and improve defensibility of structures throughout the county that provides a safer defensive zone for firefighters.  |
| How to implement and apply concepts | 1. Boots on the ground working with landowners.
2. Continue efforts in public meetings.
3. Establish future home construction building specifications.
4. Conduct field trips and/or case studies to reinforce the concepts of defensibility.
5. Continue to provide information on Firewise and other tools for reducing fire risk.
6. Utilize Senate Bill 360 – Residential Assessment Checklist
7. Reference Oregon.gov ODF-Fire Prevention Checklists
 |
| CAR or areas directly in need | All communities and residents.  |
| Timeline |  |
| Funding Sources |  Wildland-Urban Interface (WUI) grantsVolunteer Fire Assistance (VFA) grants |

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| Issue |  There is a lack of communication in conveying the current conditions of fire season (threat) and getting the message out for fire prevention and restrictions.  |
| **Mitigation #7** | **Create consistent and a clear communication with posted signs and messages conveying fire prevention and fire threat level throughout the County Agencies.**  |
|  ACTION ITEM(s) | 1. Collaboratively agree upon what the messages should say based on conditions in advance of fire season.
2. Develop new prevention sign selections that eliminate confusion.
3. Utilize message outlets to get the information distributed: web sites, blogs, Facebook, etc.
 |
| Rationale |  The public is often confused on the rules and regulations of fire restrictions between agencies. Federal and state guidelines are not consistent across boundaries and utilize different protocols to band debris burning, campfires, and forest use. There is a lack of education and understanding of the rationale behind the regulations. The National Wildfire Coordinating Group through *Wildland Urban Interface Wildfire Mitigation Desk Reference Guide* 2014 promotes common wildfire mitigation language and culture. Oregon State Fire Marshal Youth Fire Prevention and Intervention Unit emphasize a collaborative fire service and community agencies program to develop and distribute prevention education. Cooperate with local, state, and national organizations to support professional and program development. OAR 477.406 (1) The forester and a forest protective association may enter into a contract or agreement with each other, or jointly, …… for the prevention and suppression of fire on forestland or on land other than forestlands or both, to prevent and suppress fires.  |
| Desired Condition  |  Fire agencies send a clear consistent message to forest users on fire restrictions.  |
| How to implement and apply concepts | 1. Work with local PIOs/Prevention Officer to incorporate sign messages in workshops and school education programs.
2. Increase signage in areas that are prone to human cause fires.
3. Utilize funding sources to conduct education – East Face.
4. Seek interest in local members of the public that are interested in volunteering in their community for fire prevention.
 |
| CAR or areas directly in need |  Union County and communities.  |
| Timeline |  |
| Funding Sources |   |

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| Issue | Union County’s economic stability was built on agriculture and forestry resources. It is a high concern that the local economy could be severely impacted long term if large scale, high intensity fires occur in the county.  |
| **Mitigation # 8** | **Preserve and sustain wood products, view sheds, and recreation opportunities throughout the county.**  |
|  ACTION ITEM(s) | 1. Treat “middle ground” areas within the WUI Zone aggressively.
2. Develop new utilization opportunities during vegetation treatment projects.
3. Explore creative project and implementation plans for fuels and vegetation treatments across ownerships lines.
4. Ensure wood products meet local needs through pace and scale while benefitting CWPP goals: firewood, biomass, timber, and forest products.
 |
| Rationale |  Union County is reliant on a healthy land conditions in order to sustain economic stability. Local economics rely on highly diverse forest products such as timber, firewood, post and pole, forestry education programs, recreation (hunting, fishing, hiking/biking), ranching, and product gathering. Visitor spending is in the millions annually, with a high percentage coming from forest-related uses. (See Chapter IV)  CRF-2011-title44-vol1-part 206 Federal Disaster Assistance 206.435 (c) Other considerations. Consideration should be given to measures that are designed to accomplish multiple objectives including damage reduction, environmental enhancement, and economic recovery, when appropriate.Oregon Department of Forestry continually invests in Oregon’s environment to grow healthy forests. Using sustainable forest management tools that protect, maintain, and restore forest health to ensure Oregon’s forest will remain a valuable asset.  |
| Desired Condition  |  Community economic stability is designed to anticipate and meet current and future needs under a multi-year program.  |
| How to implement and apply concepts | 1. Landscape treatments should include multiple treatment tools, including biomass utilization, timber products, etc.
2. Develop Pilot Projects or Study areas to implement and evaluate success/comparison of treatment methods.
3. Expand on across-boundary treatments to create a larger wildfire risk mitigation area.
4. Although high risk areas exhibit poorer vegetation conditions or a higher fire threat, provide opportunities to maintain low risk areas and improve moderate risk areas concurrently during project planning and implementation.
5. Accelerate plan development; provide and streamline opportunities on both private and public lands that benefit local economies.
6. Considerations of public input during planning that would limit comments from local community members and organizations.
7. Firewood programs should include both live and dead products, where ladder fuel reduction is an objective.
 |
| CAR or areas directly in need |  WUI Zone and communities at risk should be first priority. Areas beyond the WUI Zone and CAR should be considered if it logistically and economically makes sense for implementation. All high fire threat, fire effects, or fire risk areas beyond the WUI Zone should also be considered.  |
| Timeline |  |
| Funding Sources |  Biomass Grant Resources - <https://www.oregon.gov/ODF/ForestBenefits/Pages/Biomass.aspx> |

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| Issue | There is lack of education in communities on citizen’s responsibilities and encouraging taking ownership of fire risk mitigation, and lack of capacity to implement a post-fire rehabilitation program.  |
| **Mitigation # 9** |  **Design an education campaign that is all-inclusive in terms of wildfire preparedness, prevention, evacuation, post-fire conditions, and living in a fire prone ecosystem.**  |
|  ACTION ITEM(s) | 1. Present the benefits of being in a fire protection program
2. Discuss the importance of homeowners understanding of Evacuation protocols
3. Educate on Post Fire measures a property owner can take
4. Provide the public with a current assessment of the county’s fire threat, fire effects, and fire risk.
5. Provide multiple education forums throughout the year to that cover: all hands all lands concepts, landowner responsibilities, what to expect pre/during/post fire.
 |
| Rationale | The 2015 fire season provided an example of overwhelming support by the community for our firefighting personnel, and yet illustrated how ill-prepared the citizens are in the event of a wildfire. Through public education and involvement, safety mitigations to protect life can also be addressed. Promotes partnerships between fire agencies, community members, and Firewise programs, Keep Oregon Green and the Oregon Office of the State Fire Marshal. Involving all agencies can mitigate public confusion in the event of a wildfire. The National Wildfire Coordinating Group through *Wildland Urban Interface Wildfire Mitigation Desk Reference Guide 2014* Recognizes Fire adapted communities, Firewise, Ready Set Go, Living with Fire (2) and whole community approach |
| Desired Condition  |  Full house in public education forums and overwhelming interest in landowner participation.  |
| How to implement and apply concepts | 1. Provide case studies, conduct site visits, use community volunteers to provide success examples.
2. Utilize the local PIO/Prevention Officer to organize outreach and education forums.
3. Share Checklists provided on Oregon.gov for fire prevention, fire programs and post fire land assistance.
4. Design meetings and booths around public gatherings that draw large crowds.
5. Develop activities within the community that involve local firefighting resources to build trust and public relations. For example, Monthly drawings for free mitigation treatments to promote boots on the ground, awareness, support and visibility of fire agencies.
6. Integrate understanding and living in fire prone ecosystems in education through public forums/school programs/prevention workshops.
7. Use FireWise, Ready-set-go concepts
 |
| CAR or areas directly in need |  All CARs |
| Timeline |  |
| Funding Sources |   |

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| Issue | There is a lack of understanding on smoke management issues and emission trade-off between prescribed burning, field burning, and wildfire.  |
| **Mitigation # 10** | **Include smoke emissions information in public education forums on wildfire mitigations, project development, and treatment tools.**  |
|  ACTION ITEM(s) | 1. Provide understanding and education on differences between prescribed burning and wildfire smoke emissions.
2. Develop countywide acknowledgement and flexibility regarding nuisance smoke during prescribed burning activities.
3. Review state smoke regulations that may currently impede successful implementation and achievement of wildfire mitigation objectives on the land.
4. Educate the public on cost benefits of prescribed burning where removal is not an economically viable option.
 |
| Rationale | Emissions trade-offs through utilizing management-ignited fire over wildfire has shown that fewer emissions occur from management ignitions. Prescribed fires generally produce two to four times less smoke than wildfires (Ottmar 1996). Additionally, the cost of fuels reduction through prescribed burning will be significantly less than wildfire suppression, and increases the likelihood of successful future suppression efforts in those areas.  |
| Desired Condition  |  Leniency of smoke emissions released during management-ignited fires where objectives are related to wildfire mitigation, community protection, and future emissions reduction.  |
| How to implement and apply concepts | 1. Oregon.gov education management tools: brochure, guides, opportunities.
2. Provide case studies and field visits pre and post burning for understanding of burning effects compared to wildfire effects.
3. Initially focus prescribed burning in areas such as “middle ground” locations.
4. Develop allowances for smoke impacts when fire mitigation is the primary purpose.
5. Acquire and place additional smoke emission detection systems throughout the county to display comparisons of prescribe burning and wildfire emission.
6. Team with Oregon Prescribed Fire Council in support of EPA’s Exceptional Events Rule (EER) changes of language in the revisions regarding management-ignited fires that meet pre-planned objectives. (including proposed rules: FR 72866, FR 75384
7. Establish research opportunities for individuals such as Roger Ottmar from Seattle lab that specializes in emissions.
 |
| CAR or areas directly in need | Union County and local communities.  |
| Timeline |  |
| Funding Sources |   |

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| Issue | There are still blocks of land within the county that are unprotected. Multiple areas exist where dwellings are in unprotected locations.  |
| **Mitigation #11** | **Fire agencies should collaboratively chart, with affected landowners, a path to incorporate these into protection areas.**  |
|  ACTION ITEM(s) | 1. Identify response agency with fire authority, staffing needs, and equipment.
2. Meet with homeowners within the unprotected areas.
3. Opportunities to expand existing protection districts or establish new ones.
4. Identify total number of structures that exist without protection and educate others on the need for incorporating those into a protection authority.
 |
| Rationale | Oregon Administrative Rules (OAR) support addressing unprotected lands: These rules allow for assessment of lands to determine zone type with the State of Oregon, depending on the zone 1 - costs, zone 2 - tax levy (allowing for establishing a rural fire protections district). These blocks of land support residential structures with no current fire protection jurisdiction, yet still receive protection through OAR Chapter 476 with post fire billing of property owner.  Establishing a known fire jurisdiction will quicken fire response, resolve cost issues, establish protection jurisdiction, which could otherwise result in the potential increased risk to life, overall fire size and property loss.  |
| Desired Condition  |  All lands and structures in Union County are under fire protection jurisdiction.  |
| How to implement and apply concepts | 1. Set lands with dwellings as a priority for protection and eventually incorporate all unprotected lands into a fire agencies jurisdiction.
2. Determine land zone according to OAR 476.310 through 476.340 and work with landowners to incorporate properties for protection.
3. Emphasize to landowners the benefits of being in a protected area.
4. Establish additional protection facilities where necessary and link this to Wildfire Response Mitigation # 6.
 |
| CAR or areas directly in need |  Within the entire county there are approximately 45,611 acres of unprotected lands including Valley lands west of Cove, Lower Cove Area, and a thin strip adjacent to Mt. Glenn road, HWY 203 along foothills to Hot Lakes, SE of Union and west of Hwy 203.  |
| Timeline |  |
| Funding Sources |   |

**Restore and Maintain Landscapes**

**Goal: *All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildfire management decisions.***

In 2013 Thomas Tidwell, Chief of USDA Forest Service presented a Wildland Fire Management status before the Committee of Energy and Natural Resources, U.S. Senate on June 4, 2013. He provided a definition of restoration as:

 “By restoration, we mean restoring the functions and processes characteristic of healthier, more resistant, more resilient ecosystems, even if they are not exactly the same systems as before.

 Approaches to restoring fire-adapted ecosystems often require treatment or removal of excess fuels (e.g. through mechanical thinning, prescribed fire, or a combination of the two), reducing tree densities in uncharacteristically crowded forests, and application of fire to promote the growth of native plants and reestablish desired vegetation and fuel conditions.”

This CWS goal recognizes that many geographic areas support ecosystems that are dependent of fire disturbance as an influencing agent not only for florae, but for all biotic life, including wildlife, aquatics, and insects. Guiding principles and core values outlined in the CWS take into consideration the need to sustain fire resilient ecosystems. These include:

1. *Reducing risk to firefighters and the public as the first priority in every fire management activity.* Designing large scale management activities that mitigate fire risk on the landscape will not only provide opportunities for successful fire suppression but change fire behavior where fire crew personnel can actively engage in suppression.
2. *Actively manage the land to make it more resilient to disturbance, in accordance with management objectives.* A resilient landscape achieves multiple fire management objectives, including restoration of ecosystem functions, opportunities to alter fire behavior for effective suppression efforts, overstory vegetation retention post fire, maintenance of previous management investments, and move stands to a more historical condition.
3. *Wildland fire, as an essential ecological process and natural change agent, may be incorporated into the planning process and wildfire response.* Union County supports fire return intervals of anywhere from 12 years to 75 years, which in ecological terms is a very short interval. Planning projects, particularly in the “middle ground” locations of the WUI Zone should be designed with this in mind.

Decades of successful fire suppression have provided opportunities for ecosystems to become overstocked, in effect elevating the level of ecosystem damage on landscapes. Managing for landscape resiliency improves overstory sustainability post-wildfire, providing opportunities for natural regeneration and modification of wildfire behavior.

Landscapes throughout the United State, particularly in the west, have seen significant changes in forest conditions. Millions of acres of forestlands in the Western United States contain a high accumulation of flammable fuels compared to fuel conditions prior to the 20th century, which in turn have posed an increasing fire hazard for many decades (GTR 120, Skinner and Chang 1996, Covington and Moore 1994, Arno and others 1997, Hann and others 1997, Swetnam and others 1999). Fire exclusion over the last century has resulted in substantial buildup of surface fuels and increase in forest structure layers brought on by overstocking of forest trees. These changes have increased the susceptibility of once fire resilient stands. These conditions provide a ladder fuel, in which surface fires can transition into crown fires resulting in unprecedented fire behavior, stand mortality, and increased safety issues for firefighters and members of the public. Crown fire initiation is often influenced by fuel alignment from the ground to the canopy, with increased likelihood when sufficient fuel is available.

Prior to the 20th century, human and lightning caused fires frequently burned with low severity in most dry ecosystems throughout the west. This low frequency, low severity fires acted as a cleansing agent for forest ecosystems by accomplishing several actions:

1. A control agent for regeneration, often promoting only the fire-tolerant, healthy trees.
2. Prevented forest fuels and biomass buildup
3. Maintained a low stand density by promoting open forest structures
4. Low densities promoted healthy stands, in turn lowering potential impacts from insects and disease
5. Promoted landscape and biodiversity through natural burning, creating heterogeneous ecosystems

Large areas of western grasslands and fire-adapted forests are in need of restoration. The forest and rangeland health problems in the West are widespread and increasing, affecting wildlife habitat, water quality and quantity, and long-term soil productivity, while providing conditions for uncharacteristically large, severe, and costly wildfires, with increasing threats to human life and property (CWS 2014).

The U.S. Forest Service is governed by a variety of laws it must follow in carrying out federal forest policy. Included among these are, but not limited to: the National Forest Management Act, the National Environmental Policy Act, and the Endangered Species Act. All told, the United States Department of Agriculture (USDA) reports that more than 90 separate statutes affect management within the Forest Service.

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| Issue | Current landscape conditions if left unmanaged will impact *economic* stability of the County.  |
| **Mitigation #1**  | **Explore opportunities for projects and implementation plans to consider all tool options and potential economic impacts of wildland fire while protecting communities.**  |
|  ACTION ITEM(s) | 1. Develop new utilization opportunities of fuels and vegetation
2. Maintain all hands-all lands concept for resilient landscapes
3. Retain allotments and grazing opportunities
4. Preserve and sustain view sheds and recreation opportunities
5. Increase pace and scale of treatments
 |
| Rationale |  Local forests provide significant economic stability from timber, recreation, hunting/fishing, and gathering, as described in Chapter IV. Sustaining infrastructure (mills/contractors) is essential to provide cost effective management options and utilization. The average Environmental Impact Statement, which is used for large forest management projects, takes 37 months (McClintock 2015).The agency needs to continue to advance the Cohesive Strategy and treatment of landscapes collaboratively through our Accelerated Restoration Strategy to increase the number of acres and watersheds restored across the system, while supporting jobs and increasing annual forest products sales (Tidwell 2013). Simplify processes to expedite treatment within WUI Zone boundaries.  |
| Desired Condition  |  Restoration and retention of forested lands that encourage visitor use, allow for wood products, and sustain fire resilient ecosystems across the landscape.  |
| How to implement and apply concepts | 1. Ensure vegetation treatments; attempt to utilize all wood products including firewood (live and dead), biomass, and timber.
2. Provide Categorical Exclusions or expedited process in “middle ground” general forest areas regarding NEPA Environmental Assessments where objectives include community protection.
3. Implement Section 428 of the 2012 Consolidated Appropriations Act - authorized the Agency to establish a pre-decisional objection process for projects. Considering public concerns before a decision is made aligns with and strengthens our collaborative approach to forest management increasing the likelihood of resolving potential concerns, and resulting in better, more informed decisions.
4. Utilize the Collaborative Forest Landscape Restoration (CFLR) Program to restore large landscapes. CFLR projects that will emphasize restoration across large-scale landscapes in order to reestablish natural fire regimes and reduce the risk of uncharacteristic wildfire. Reach agreement prior to decision.
 |
| CAR or areas directly in need |  All lands. Pace and scale on public lands particularly WUI Zone where communities are impacted and in general forest were natural resources are at risk.  |
| Timeline |  |
| Funding Sources |  2014 Farm Bill expands the tools to support the Forest Service ability to accomplish restoration work on the ground (Tidwell 2015).  |

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| Issue | Current planning processes do not appear cost effective and are small acreage projects, which are ineffective in terms of fire behavior modification, ecosystem restoration, and improving suppression resource success in middle ground areas.  |
| **Mitigation #2** | **Increase speed of project planning and implementation and scale of projects while emphasizing cross boundary all hands-all lands approaches.**  |
|  ACTION ITEM(s) | 1. Produce watershed level planning that takes in big picture concepts to avoid multiple small planning areas.
2. Identify NEPA obstacles. Lobby for and identify policies that support accelerating projects toward the implementation phase.
3. Take advantage of opportunities of similar treatments across jurisdictional boundaries.
4. Utilize categorical exclusions whenever possible to expedite planning.
 |
| Rationale |  The average Environmental Impact Statement, which is used for large forest management projects, takes 37 months (McClintock 2015). A way to increase pace and scale of forest restoration and management is to improve the efficiency of planning timber sales and stewardship contracts. There are currently efforts to identify and implement process improvements and efficiencies that help with increasing pace and scale of restoration, while also engaging the public and developing well-planned projects (Tidwell 2015). |
| Desired Condition  |   |
| How to implement and apply concepts | 1. Use Good Neighbor Authority – 2014 Farm Bill. Allows the Forest Service to enter into cooperative agreements or contracts with States and Puerto Rico to allow the States to perform watershed restoration and forest management services on National Forest System (NFS) lands.
2. Utilize the Collaborative Forest Landscape Restoration (CFLR) Program to restore large landscapes. CFLR projects that will emphasize restoration across large-scale landscapes in order to reestablish natural fire regimes and reduce the risk of uncharacteristic wildfire. Reach agreement prior to decision.
 |
| CAR or areas directly in need | Start with attention being near CAR and within WUI Zone areas with cross-boundary treatments and landscape approaches. Aggressive middle ground treatments. Beaver Creek Watershed.  |
| Timeline |  |
| Funding Sources |  2014 Farm Bill expands the tools to support the Forest Service ability to accomplish restoration work on the ground (Tidwell 2015).  |

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| Issue | Post wildfire impacts currently have the potential to result in high mortality percentages at a landscape scale, similar to NE Oregon wildfires of 2015.  |
| **Mitigation #3** | **Develop landscape treatment opportunities that reduce mortality and increase retention of overstory structure post wildfire.**  |
|  ACTION ITEM(s) | 1. Utilize multiple tools for vegetation treatments
2. Plan resource goals and treatment strategies that are designed to reduce wildfire behavior.
3. Propose treatments that promote fire tolerant early seral species that historically existed on the landscape, in fire prone ecosystems.
4. Reduce homogenous landscapes thereby creating landscape diversity and species retention.
 |
| Rationale | Fire is recognized and accepted as a natural process that has been prevented from assuming its role in the ecosystem. It is necessary for the maintenance of many ecosystems; however successful suppression has allowed ecosystems to deviate from their historical conditions. Post-fire assessments show that fuels and forest health treatments are effective in reducing wildfire severity (Tidwell 2013, Ecological Resource Institute 2013) The Cohesive Wildfire Strategy and multiple federal policies address treatments that promote ecological fire restoration. i.e.: Department of Interior Budget Justification, Western Governors’ Association, U.S. Department of Agriculture, Bureau of Indian Affairs, etc. Retention of ecological and landscape integrity protects county air and aesthetic quality, seed sources for future vegetation, lessens soil impacts and accelerates overall ecosystem recovery post fire.  |
| Desired Condition  | Fire resilient landscapes in areas of fire prone ecosystems through the retention and development of early seral species, diversity on the landscape with primary focus of the reduction of fire behavior characteristics.  |
| How to implement and apply concepts | 1. Provide opportunities for pilot projects to evaluate the cost of landscape treatments with the benefits of suppression and post fire costs.
2. Promote fire tolerant species and stand structures, particularly in the middle ground areas, that exhibit reduced wildfire behavior characteristics during summer fire season.
3. Approach projects on an all hands-all lands concept.
 |
| CAR or areas directly in need |  WUI Zone and Communities at Risk followed by all other areas within the county identified as in need of restoration.  |
| Timeline |  |
| Funding Sources |   |

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| Issue | Some areas exist that have been previously treated and are not planned for maintenance of initial investment. These areas are at risk of transitioning back into their pretreated state. |
| **Mitigation #4** | **Although these areas may not all be at a high fire risk, approaching treatments with landscapes in mind will provide an avenue for maintenance of previous investments.**  |
|  ACTION ITEM(s) | 1. Incorporate previously treated areas into proposed treatment projects.
2. Landscape treatments, regardless of tool used, must have a plan included for maintenance of investments for the future.
3. Include maintenance across boundary.
 |
| Rationale | Once treatments are achieved to move ecosystems to a more sustainable condition it is imperative to retain not only the investment, but the ecosystems themselves into the future. The Healthy Forest Restoration Act Section 102(g) (8) requires the USDA Forest Service and DOI BLM to develop a process for monitoring the need to maintain treated areas over time. Federal Wildland Fire Management Policy 2009 – Ecosystem sustainability. Agencies should use a full range of fire management options to sustain healthy ecosystems. Cohesive Wildfire Strategy identifies as one of its primary goals – “Restore and Maintain Landscapes” |
| Desired Condition  | An organized process of *long term* treatment rotations, across jurisdictions, that provide re-entry opportunities to maintain initial investments and sustain healthy ecosystems.  |
| How to implement and apply concepts | 1. Develop a pilot project or research opportunity to evaluate the cost benefit of retaining initial investments.
2. Outline a schedule of maintenance treatments into the annual program of work (USFS and DOI HFRA, p. 38).
3. Look for opportunities for volunteer groups to assist with private landowner maintenance.
4. Utilize local contractors on second entry prescribed burning where initial treatments have been completed, providing agency personnel to focus on first entry.
 |
| CAR or areas directly in need |  WUI Zone and Communities at RiskAreas within Union County  |
| Timeline |  |
| Funding Sources |   |

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| Issue |  Deficiency of public education forums focusing on ecosystem restoration and sustainability.  |
| **Mitigation #5** | **Develop education and information sharing opportunities that address local issues and opportunities.**  |
|  ACTION ITEM(s) | 1. Establish education programs or customize already-developed programs to meet local needs.
2. Collaboratively work together with the county to reach out to a diverse audience.
3. Improve and expand communication between knowledgeable experts, scientists, program managers, and stakeholders to ensure the best information is conveyed.
4. Create local community-based partnerships to focus on actions proposed.
 |
| Rationale | Destructive wildfires have occurred in both the Pacific Northwest and Southwest over the last decade. As a result, the public’s perception of the fire environment is based on worst-case scenarios. Fire prone environments and ecosystem dependency on wildfires is not commonly discussed with community members and there is a need for education on ecosystem benefits and restoration treatments. Current ecosystem conditions are continually posing a safety threat to fire-fighting personnel and members of the public. Demonstrating how past successes have changed the outcome of wildfires and where treatments have benefited not only defensible space but landscape resiliency is key to program accomplishments.  |
| Desired Condition  | A program geared toward living in fire prone ecosystems that creates an informed public of all ages.  |
| How to implement and apply concepts | 1. Develop a program of fire prone ecosystems into a comparable forum similar to the fire prevention program.
2. Capture successes of treatments vs. wildfires in non-treatment areas to demonstrate effectiveness of management.
3. Utilize the PIOs and County Fire Coordinator (if created) to work together in the county. (Otherwise use local fire management staff.)
4. Provide a comparison of costs of treatments verses suppression.
5. Work with local communities, county, and colleges for guest speaker opportunities.
6. Identify local and educational platforms that are open to guest speakers and/or subject matter experts.
7. Start with internal education of agencies in order to provide consistent message.
 |
| CAR or areas directly in need |   |
| Timeline |  |
| Funding Sources |   |

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| Issue | Lack of public understanding of importance of prescribed fire use and smoke management trade-offs where wildfires are concerned.  |
| **Mitigation #6** | **Educate community members of importance of fire in the ecosystem and associated smoke emissions.**  |
|  ACTION ITEM(s) | 1. Collaboratively work together to provide consistent messages of why, how, when, and who should utilize prescribed fire.
2. Provide smoke emission comparisons for various stages of treatment and current landscape conditions.
3. Develop a Pilot project website and a system for internal and external communications and public relations (Blue Mnt. CWS)
4. Collaboratively work with Oregon Smoke Management on emissions flexibility for prescribed burning.
 |
| Rationale | Fire prone environments and ecosystem dependency on wildfires is not commonly discussed with community members and there is a need for education on benefits of “management prescribed fires” and smoke emissions tradeoffs. Prescribed fire is identified as a management tool that is not as severe under active prescribed fire regimes. Prescribed fire is one of the three primary means for managing fuels for ecological purposes and resource objectives. (CWS 2014). Some areas within Union County are non-accessible via motored vehicles and fit the characteristics where prescribed fire would be the appropriate management tool.  |
| Desired Condition  | Public understanding of importance of fire’s role in the ecosystem and their role in living in fire prone ecosystems.  |
| How to implement and apply concepts | 1. Identify areas where prescribed fire is most appropriate during planning process.
2. Invite subject matter experts to speak at local forums on emissions trade-offs. (Roger Ottmar – Seattle – PNW lab – 40 years research).
3. Utilize Oregon Prescribed Fire Council to visit the county and work with local managers on getting message out to the public.
4. Assess internal perspectives and educate agency personnel prior to public meetings for a clear consistent message.
5. Provide information on summer wildfire emissions verses prescribed fire emissions.
 |
| CAR or areas directly in need | Middle ground area of WIU Zone and areas where landowners may have an interest in applying prescribed fire as a tool. Case by case basis. Other geographic areas in Union County not specified as part of WUI Zone or CAR  |
| Timeline |  |
| Funding Sources |   |

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| Issue | There is a need for creating both a resilient landscape and defensible space in the “middle ground” areas.  |
| **Mitigation #7** | **Design projects that provide defensible space for suppression resources while retaining ecosystem integrity in fire prone environments.**  |
|  ACTION ITEM(s) | 1. Use the all hands – all lands approach to project planning
2. Develop project planning objectives that promote fire prone ecosystems and opportunities for successful suppression in the middle ground area well beyond Communities at Risk.
3. Collaboratively work together to develop the most appropriate landscape projects.
 |
| Rationale | Union County’s ecosystems are fire prone. Proactive aggressive treatments in the middle ground areas that protect both ecosystems and communities are needed. This area between communities and more distant wildlands provides fire managers with key strategic opportunities in fire suppression. Because of the vast lands in the west, including Union County, increasing the success of sustaining both ecosystems and communities in the event of a wildfire is imperative. The CWS clearly addresses the need for large landscape-scale changes in vegetation structure and fuel loadings to significantly alter wildfire behavior, reduce wildfire losses, ensure firefighter and public safety, and improve landscape resiliency.  |
| Desired Condition  |  A landscape that provides long-term ecosystem benefits and opportunities for successful fire suppression well beyond communities.  |
| How to implement and apply concepts | 1. Identify treatments that compliment objectives for both resilient landscapes and defensible space.
2. Address attributes that impede suppression success such as fuels, topography, and home location.
3. Encourage attributes that promote survivability such as strategic placement of fuel breaks and use of natural barriers; strategic types of treatments (encouraging fire tolerant species); maintenance of public road right-of-ways for defense.
4. Present projects to Forest Collaborative to promote forward movement on implementation.
5. Use Plans and Policies that guide land management and community protection.
 |
| CAR or areas directly in need |  WUI Zone |
| Timeline |  |
| Funding Sources |  Good neighbor Authority – 2014 Farm Bill.  |

**Summary**

During CWPP committee discussions, it was recognized that wildfire suppression will continue to be a priority; as a result there is the need for preparation in advance of wildfires through agencies and landowners proactive actions toward structure composition and landscape scheme, adjacent vegetation treatments, and infrastructure design. Each of the goals of this CWPP plan was assessed for existing issues within Union County, particularly in the WUIZ and Communities at Risk. Mitigation measures were developed based on those existing issues.

Several local, state, and federal policies and guidelines stress the importance of designing mitigation measures to reduce wildfire risk and protect life and property. This CWPP recognizes wildfire mitigations recommendations with reference to those policies and guidelines.

By designing current issues based on local fire management, cooperator, and public needs, the county was able to create opportunities by way of mitigation action items to mitigate wildfire risk while meeting the CWPP goals and objectives. Action items tiered to the mitigations is designed with the desired outcome in mind. It is also important to recognize that as conditions change, both spatially and temporally; modifications will and should occur as needed as new issues arise and changes to mitigations are needed.

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