



STAFF REPORT

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January 14, 2020

AGENDA ITEM: VI-A

Consideration of City of Central Point Hazard Mitigation Plan **Applicant:** City of Central Point.

STAFF SOURCE:

Justin Gindlesperger, Community Planner II

BACKGROUND:

The City of Central Point has a stand-alone hazard mitigation plan that was adopted in 2011 and needs to be updated to account for community changes since 2011. The Hazard Mitigation Plan evaluates the City's vulnerability to natural hazards and establishes an action plan to reduce risk. In addition to providing a framework for reducing the negative impacts of future disaster events (i.e. floods, earthquakes, severe weather, etc.), maintaining a current plan is necessary to retain eligibility for 1) pre- and post-disaster federal funding; and 2) flood insurance discounts through the Community Rating System.

The risk assessment conducted as part of the update process serves as the foundation to the rest of the planning process by reevaluating the hazards identified in the 2011 Hazard Mitigation Plan, identifying new hazards and determining potential impacts of those hazards to the community. Once the risks to Central Point are identified, defined as the potential for damage, loss or other impacts, the focus can turn to identifying and prioritizing actions to mitigate the impacts.

During this meeting, staff will review the risk assessment process and provide an overview of the natural hazards and the expected impacts to Central Point. Attached is a copy taken from the Hazard Summary and Risk Assessment chapter for the updated plan, which includes an introduction to natural hazard risks, risk assessments and the hazard profile for Wildfires.

ISSUES:

The primary issue in considering the Hazard Mitigation Plan is to identify local policies and actions that can be implemented to reduce risk and future losses from hazards.

ACTION:

Consideration of the City of Central Point Hazard Mitigation Plan and provide comments regarding proposed updates.

ATTACHMENTS:

Attachment "A" –Hazard Identification and Risk Assessment
Attachment "B" - Wildfires

4. Hazard Identification and Risk Assessment

44 CFR §201.6(c)(2)(i), The risk assessment shall include a description of the type, location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.

44 CFR §201.6(c)(2)(ii), The risk assessment shall include a description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community. All plans approved after October 1, 2008 must also address NFIP insured structures that have been repetitively damaged by floods. The plan should describe the vulnerability in terms of:

44 CFR §201.6(c)(2)(ii)(A), The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard area.

44 CFR §201.6(c)(2)(ii)(B), An estimate of the potential dollar losses to vulnerable structures identified in this section and a description of the methodology used to prepare the estimate.

44 CFR §201.6(c)(2)(ii)(C), Providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.

Introduction

Central Point is subject to a wide array of natural hazards. The purpose of this chapter is to identify the potential hazards and determine the potential impacts to the people, economy, existing and future development, and the natural environment of the City. Some hazard events, such as earthquakes or severe weather, may affect the entire city. Other hazards will only directly impact a portion of the city. The risk assessment is the first step in the mitigation planning process and provides a framework for the City to focus attention and resources on the greatest risks by mitigating or preparing for potential hazards.

Understanding Risk

Risk is an uncontrolled, or unexpected, loss of something of value. FEMA defines risk as “the potential for damage, loss, or other impacts created by the interaction of natural hazards with community assets” (2013)¹. As shown in Figure 4-1, the risks from a natural hazard event result because of the exposure of community assets to the destructive forces of the hazard.

¹ Federal Emergency Management Agency. Local Mitigation Planning Handbook, 2013. 5-1.

Figure 4-1 Understanding Risk



Source: Local Mitigation Planning Handbook (FEMA, March 2013)

Another way to describe risk is the exposure of assets to a natural hazard. In this case, exposure is the quantity, value and vulnerability of a community’s assets subject to one or more hazards. The more exposed assets are, the higher the risk. Risk results only when there is an overlap between assets and a hazard.

What is a Risk Assessment?

The risk assessment process identifies and profiles relevant hazards and assesses the exposure of lives, property and infrastructure to these hazards. The process allows for a better understanding of Central Point’s potential risk to natural hazards and provides a framework for developing and prioritizing mitigation actions to reduce risk from hazard events.

A risk assessment consists of the three steps shown in Figure 4.2. Each step builds on the information and data gathered in the previous step in order to appropriately determine risks to the community.

Figure 4-2: Risk Assessment Process



As shown in the figure above, the first step in the process is Hazard Identification. This step not only identifies the individual hazards, but also includes a description of where the hazard will occur within City, the extent, or strength, of the expected hazard, a history of when the hazard has occurred in the past, and the probability of any expected future occurrences.

The second step in this process is the Vulnerability Assessment. This step examines the overlap between the natural hazards and the community assets. It examines how the City – the people, property, built environment and natural environment – will be affected by each particular hazard.

The final piece to a risk assessment is the Risk Analysis. This step examines the information from the previous steps and determines potential impacts. It identifies the potential for damages, losses and casualties arising from hazards.

Hazard Identification

Central Point identifies eight natural hazards that could have an impact on the city. Table 4.1 lists the hazards identified by the advisory committee. The list of hazards was developed by comparing the hazards in the previous plan to hazards identified in the Oregon NHMP for the Southwest Oregon (Region 4), and researching past events in the area. The 2011 Hazard Mitigation Plan briefly addressed several *other hazards* which, as the plan states, “...pose minor or negligible threats to Central Point.” (2011)² The steering committee considered each of the hazards individually and while some still pose minor threats to the City, the risk from at least one hazard changed significantly due to changes in local conditions and recent hazard occurrences since the previous plan was completed.

Table 4-1: Central Point Hazard identification

Hazard	History	Vulnerability	Maximum Threat	Probability	Total Threat Score	Risk Level (H-M-L)
Earthquake (Cascadia)	2	50	100	70	222	High
Floods	20	25	50	70	165	High
Wildfire	10	25	50	70	155	High
Winter Storm	20	5	10	70	105	Medium
Windstorm	20	5	10	70	105	Medium
Drought	20	5	10	70	105	Medium
Earthquake (Crustal)	2	25	50	7	84	Low
Volcano	2	5	50	7	64	Low
Landslide	2	5	10	7	24	Low

Hazard Summaries

The following sections provide a description and overview of each hazard type. Each hazard summary includes information on hazard history and past occurrences, the extent or location of the hazard within or near the City, probability of the hazard occurring in the future, and the vulnerability of the City to damages from the hazard.

² City of Central Point, Central Point Natural Hazard Mitigation Plan, 2011. 9-1.

Wildfires

Significant Changes since Previous NHMP:

A significant wildfire event within City limits occurred since the previous NHMP.

Jackson County and Josephine County completed a joint Community Wildfire Protection Plan that updated the limits of the Wildland-Urban Interface in both counties.

Wildfires, also referred to as wildland fires or forest fires, are uncontrolled fires where vegetation, including grasses, brush and trees, are the primary fuels of the fire. These fires become a risk when development encroaches into wildland area. The increase of development into the interface, or the Wildland-Urban Interface (WUI), results in greater wildfire risks through limited services like water supplies and suppression capabilities, as well as other factors like the absence of fire-safe construction practices and limited access to/from high-risk areas.

Fires may be started by natural causes, such as lightning, or human causes, either intentionally or unintentionally. Once started, there are three (3) main factors that contribute to fire behavior, including vegetation/fuel loads, weather and topography.

- Fuel is the material that feeds a fire and is classified by volume and type. Certain types of plants are more susceptible to burning or will burn with greater intensity. Fire intensity can increase with the abundance of dense or overgrown vegetation, a higher ratio of dead plant matter compared to living vegetation, and the amount of moisture content found in the vegetation.
- Topography influences the movement of air and directs a fire's course. Steeper slopes can increase the spread as warm air currents travel uphill.
- Weather is the most variable factor. Temperature, humidity, wind and lightning can affect chances for ignition and spread of fire. Extreme weather, such as high temperatures and low humidity, can lead to extreme wildfire activity.

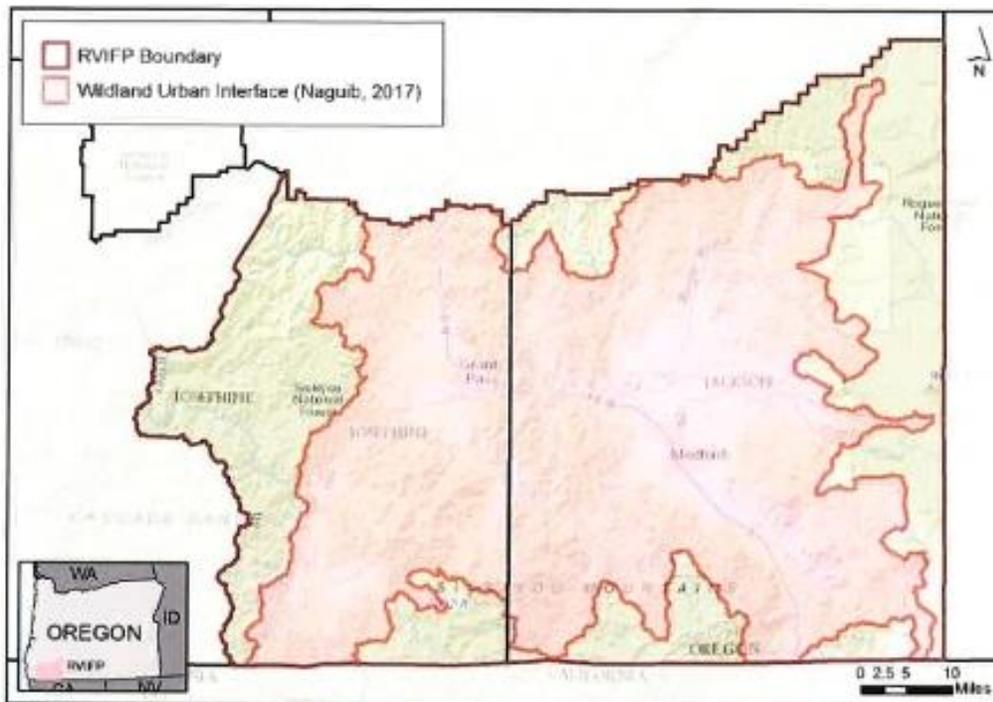
Location and Extent

Areas with the greatest risk to experience loss from a wildfire are the areas where development and structures encroach into wildlands that are prone to wildfires. These areas are referred to as the Wildland Urban Interface (WUI). Central Point was originally thought to be outside of a WUI, as reflected in the low level of risk identified in the 2011 Hazard Mitigation Plan.

In 2017, Jackson and Josephine Counties completed a joint Community Wildfire Protection Plan (CWPP) that updated the WUI for both counties (RVIFP, 2017)¹. The CWPP process is designed to identify and prioritize areas for wildfire prevention and response efforts. The CWPP also updated the WUI, as shown in Figure 4-3.

¹ Rogue Valley Integrated Community Wildfire Protection Plan, (2017).

Figure 4-3: RVIFP Wildland Urban Interface



Source: Rogue Valley Integrated Community Wildfire Protection Plan, 2017

The updated WUI includes many urban and densely populated areas within Jackson and Josephine Counties. As noted in the 2017 RVIFP:

Though many non-vegetated expanses do exist within metropolitan areas (shopping malls, roads, parking lots, downtown sections, municipal and urban buildings, etc.) the vast majority of Rogue Valley metropolitan areas and urban structures are located within ¼ mile or less of wildland areas. Wildfires create airborne burning embers that can travel ½ mile or more from the fire. Structures, particularly those closely-spaced, as found in urban settings, are extremely vulnerable to ignitions from burning embers, and the spot fires created by burning embers.

Through the CWPP process, the Counties and the WUI work group could define a WUI based on zoning and focus fuel treatments where people live, or are likely to live. The mix of public and privately-owned wildlands can make meaningful mitigation difficult. As the 2017 RVIFP notes: “To provide sufficient fire protection for the population center, it is essential for wildfire planning efforts to include metropolitan areas within the WUI boundaries, to ensure adequate suppression resources are available.”(2017)²

History

In July of 2018, a fast-moving grass fire started along the Bear Creek Greenway near the east side of Central Point. The wildfire, named the Peninger Fire, started near Jackson County Expo property, burned along the greenway before it rapidly moved east along Peninger, Biddle and Hamrick Roads. The fire

² Rogue Valley Integrated Community Wildfire Protection Plan (2017).

burned approximately 97 acres, singed 3 homes, destroyed 5 outbuildings and damaged another outbuilding³.

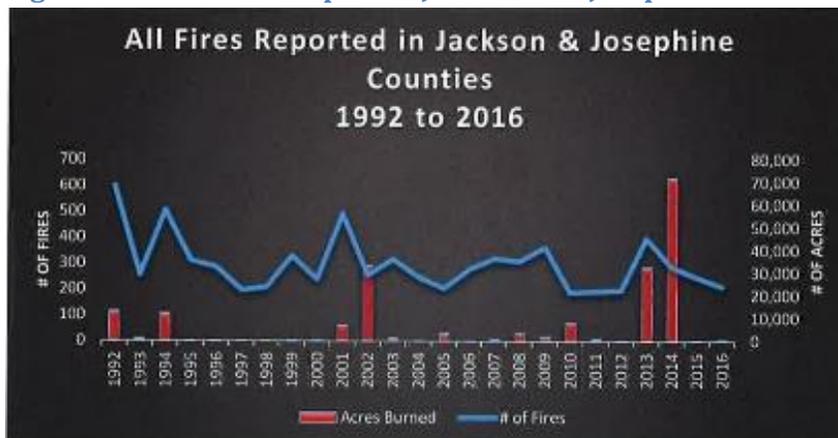
Figure 4-4: Peninger Fire Map



Source: The Wild Coast Compass⁴

Outside Central Point city limits, Jackson County has experienced a large number of wildfires throughout history. As part of the RVIFP, the CWPP examined fire history from 1992-2016 for Jackson and Josephine Counties. Using data from the United States Forest Service (USFS) and Oregon Department of Forestry (ODF), there were an average of 296 wildfires per year, with an average of 7,808 acres burned⁵. As shown in Figure 4-5, the numbers of wildfires ranged from 186 to 598 per year.

Figure 4-5: Wildfires Report in Jackson and Josephine Counties



Source: RVIFP (2017)

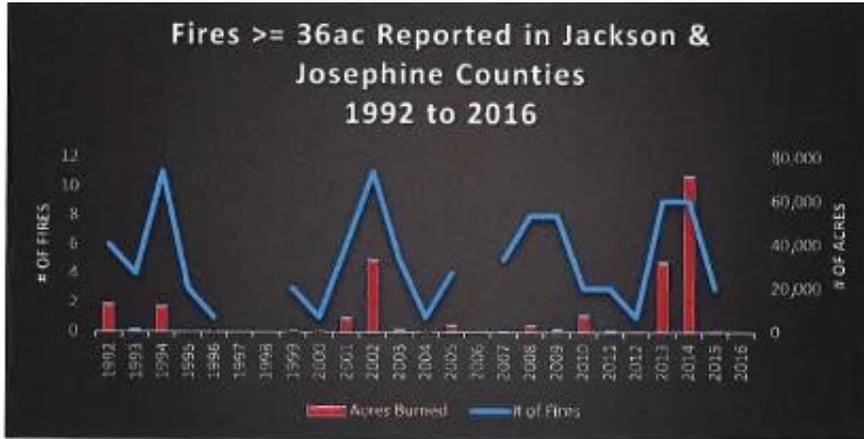
³ Nick Morgan, "Body Found in Burned Area of Central Point Fire," *Mail Tribune*, 19 July 2018.

⁴ The Wild Coast Compass, www.wildcoastcompass.com

⁵ *Rogue Valley Integrated Community Wildfire Protection Plan*, (2017).

Despite the large number of fires ignited annually, only a small portion of those reached 36 acres or greater (about 64 fires since 1992) showing that most fires are successfully suppressed after the initial attack. As noted in the 2018 Jackson County NHMP, the majority of fires are started along travel corridors and the edges of urban areas; however, the fires that grow to burn a large number of acres are located near more remote areas (see Figure 4-6).

Figure 4-6: Large Fires (>= 36 acres) Fire Occurrence (1992-2015)



Source: RVIFP (2017)

Probability

According to the 2018 Jackson County NHMP,

Certain conditions must be present for significant interface fires to occur. The most common are hot, dry and windy weather; the inability of fire protection forces to contain or suppress the fire; the occurrence of multiple fires that overwhelm committed resources; and a large fuel load (dense vegetation). Once a fire has started, several conditions influence its behavior, including fuel, topography, weather, drought and development. Many of these conditions are demonstrated across large areas within Jackson County, creating a significant collective risk (2018).⁶

The Advisory Committee assessed the probability of experiencing a wildfire hazard in Central Point a “**high**” probability, meaning one incident is likely with the next 10-35 years. Based on the available information, the Oregon Natural Hazard Mitigation Plan Regional Risk Assessment supports this probability rating for Central Point. *This rating has increased since the previous NHMP.*

Vulnerability

The Advisory Committee rated Central Point as having a “**moderate**” vulnerability to wildfire hazard, meaning that between 1-10% of the City’s population or assets would be affected by a major disaster. *This rating is an increase since the previous NHMP.*

⁶ Jackson County Emergency Management, Jackson County Multi-Jurisdictional Natural Hazard Mitigation Plan, 2018

Southern Oregon, including Central Point and the surrounding areas of Jackson County, are identified in the 2015 Oregon NHMP as one of the regions in the state most susceptible to wildfires. This vulnerability assessment is the result of a high percentage of wildland acres subject to fire risk, smaller communities within the WUI, high summer temperatures, rugged terrain and the likelihood of summer thunderstorm activity (Oregon DLCD, 2015)⁷.

Ignition sources are generally concentrated along travel corridors and at the edges of urban areas (RVIFP 2017)⁸. Debris-burning, equipment use and even arson contribute to wildfire ignition sources. Central Point is bound by rural areas on the west and north, there are several travel corridors that connect the City to these areas, and several stream north-south stream corridors, including Bear Creek that accommodates pedestrian traffic – the source of the 2018 Peninger Fire, connect the City to the WUI and sources of wildland fires.

As noted above, metro areas within ¼-mile of wildlands are vulnerable to risks of wildfires. Areas of Central Point within ¼-mile of wildlands, including the Bear Creek Greenway and the “metro edge” are shown in Figure 4-7. There are ___ residences within ¼-mile of the Bear Creek Greenway, ___ residences within ¼-mile of the “metro edge” along the north and east sides of the City. There are several critical facilities within the wildfire risk area, including the proposed Scenic Fire Station along Scenic Avenue.

Figure 4-7: Central Point Wildfire Risk Areas

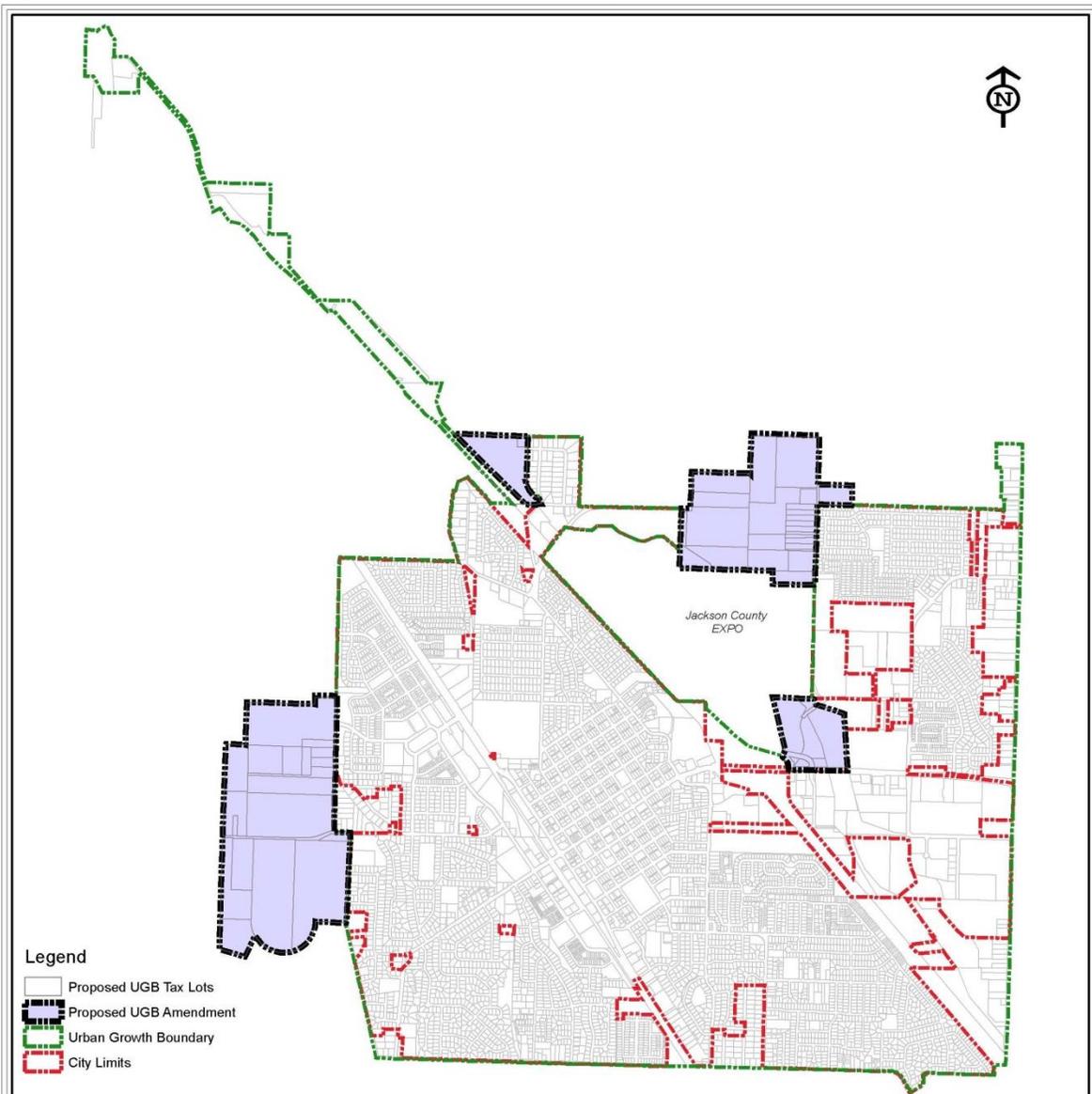
Source: Central Point Planning Department

The expected increase in population necessitates the expansion of City limits, and ultimately, urban-type development and densities into current rural areas. Areas proposed for growth, to the west and north of the current City boundaries (see Figure 4-8), are also areas currently within a certain level of risk for wildfires. While densities will increase in these areas, services and responses, such as access routes, emergency response from the new fire station, and water supplies, will increase commensurately. It is anticipated that the level of risk to wildfires will stay the same in these areas.

⁷ Oregon Department of Land Conservation and Development (DLCD), Oregon Natural Hazards Mitigation Plan, 2015.

⁸ Rogue Valley Integrated Community Wildfire Protection Plan, (2017).

Figure 4-8: Central Point Urban Growth Boundary Amendment



Central Point Urban Growth Boundary Amendment

Proposed UGB Areas

Source: Central Point Planning Department