

Policy Name: Electric Utility Wildfire Mitigation Plan		
Original Policy Date: March 2022	Policy No.: ADM/wildfireprevent/d	
Department: Engineering	Approved By: Manager	
Resolution Number:	Compliance: RCW 19.29A.170	
Responsible Party: Director of Engineering & Utility Services	Recommended Review: Annually by staff and every three years by Commission	

## **PURPOSE:**

# DNR TEMPLATE 1.0

The recent increase in severity and number of wildland fires across the West is possibly the most visible and challenging consequence of climate change to our region. Each year, wildland fires start earlier and are more destructive than ever. The Pacific Northwest has experienced first-hand how devastating and costly wildland fires can be for our communities, and for essential services like utilities to safely serve them.

The purpose of PUD 3's Wildfire Mitigation Plan is to implement an actionable plan to increase reliability and safety, while minimizing the probability that PUD 3's assets start or contribute to the spread of a wildland fire.

This plan also incorporates the following Appendices prepared by Mason County:

- Appendix A: Mason County Community Wildfire Protection Plan (2012)
- Appendix B: Mason County Hazard Identification and Vulnerability Analysis (2019) Chapter 11

# 1.0 SCOPE:

# DNR TEMPLATE 2.0

- 1.1 Mitigate the probability that PUD 3's Transmission and Distribution assets may be the source of ignition or a fuel source of a wildland fire, while continuing to provide reliable service to customers.
- 1.2 Implement a plan that prioritizes safety, situational awareness, preventative methods, and efficient recovery.
- 1.3 Maintain a plan that aligns with utility best practice competencies, risk mitigation activities, and compliance requirements.
- 1.4 Fulfill Washington State compliance requirements for an Electric Utility Wildfire Mitigation Plan Review/Revision as laid out in RCW <u>19.29A.170</u>:
  - 1.4.1 By October 31, 2024, and every three years thereafter, each consumer-owned utility must review, revise, and adopt its wildfire mitigation plan. The plan must include recommended elements as found in RCW <u>76.04.185</u>. The plan and each three-year review are to be reviewed and approved by the PUD 3 Board of Commissioners and submitted to the Department of Natural Resources (DNR) and the Utility Wildland Fire Prevention Advisory Committee created in RCW 76.04.780. Other reporting requirements are to be met, as applicable.
  - 1.4.2 This plan will include cross references to the elements presented in DNR's recommended format.



1.4.3 This Wildfire Mitigation Plan is to be made available on the PUD's website under "Document Archives" (<u>https://www.pud3.org/about-us/pud-documents/</u>).

## 2.0 PRIORITIES:

## DNR TEMPLATE 1.0

- 2.1 Uphold a safety-first culture for PUD 3 employees, customers, and the general public.
- 2.2 Assess the wildland fire risk in PUD 3's service territory; identify and prioritize higher risk assets; and develop tools that assist with operational solutions for mitigating the risk of ignition during extreme fire weather events.
- 2.3 Analyze and implement mitigation solutions that balance the risk of wildland fire with PUD 3's mission of safe and reliable energy delivery.
- 2.4 Leverage or expand existing reliability programs, such as Grid Modernization, to deliver benefits for wildland fire prevention.
- 2.5 Develop and uphold operational processes to ensure communication with fire agencies and ensure the safety of PUD 3 employees during an active fire event that could impact PUD 3's assets.

#### 3.0 OVERVIEW:

# DNR TEMPLATE 4.0

Five main components comprise the proposed wildland fire mitigation strategies, which align with PUD 3's best practices. Together, they create a comprehensive wildland fire preparedness and response plan with a principal focus on stringent construction standards; fire prevention through system design; proactive operations and maintenance programs; specialized operating procedures; and staff training.

#### 3.1 Design & Construction

Design and construction practices aim to improve system hardening to prevent contact between infrastructure and fuel sources and minimize the electrical system's risk of becoming an ignition source. Examples include the widespread use of covered conductor ("tree wire"), reduced use of large-size expulsion fuses, and continued adoption of insulated equipment.

#### 3.2 Inspection & Maintenance

Inspection and maintenance strategies consist of regular diagnostic activities and maintenance methods by qualified personnel that ensure equipment and infrastructure are in proper working condition and areas of concern are addressed swiftly.

#### 3.3 Operational Practices

Regular safety training, tailboard meetings, and continuing education ensure preparedness in high-risk situations to mitigate wildland fire related hazards. Other operational practices may include increased vegetation management in high hazard areas and adjusting protection settings during high-risk events.



#### 3.4 Situational Awareness

Situational Awareness consists of methods to improve system visualization and awareness of environmental conditions. The practices in this category aim to provide tools to strengthen the plan's other features. For example, PUD 3 monitors numerous websites, including the National Weather Service (NWS), Washington Department of Natural Resources (DNR), and Northwest Interagency Coordination Center (NWCCC) for the latest briefings on current weather predictions and events, with special attention to Fire Weather Alerts.

#### 3.5 Response & Recovery

This strategy consists of procedures in response to active wildland fires, de-energization, and other emergency events. This aim is to formalize protocols for these situations for thorough and efficient communications, emergency response, and recovery efforts.

# 4.0 MASON COUNTY OVERVIEW & NATURAL WILDLAND FIRE RISK DRIVERS

*DNR TEMPLATE 3.0 & 6.1* 

4.1 **Mason County Hazard Identification and Vulnerability Analysis (Appendix B)** lists a probability of occurrence for wildland fire in Mason County as HIGH, with a vulnerability rating of MEDIUM; providing an overall wildland fire hazard risk rating of HIGH. PUD 3 agrees with this assessment and takes the threat of wildland fires seriously. It should be noted that FEMA's National Risk Index classifies Mason County with a "Very Low" Wildfire rating of 29.8; SOURCE: https://hazards.fema.gov/nri/map

Please refer to **Appendix A: Mason County Community Wildfire Protection Plan** for additional information regarding wildfires in Mason County. Relevant highlights are shared below.

4.1.1 Geography & Vegetation

Mason County is in the south Puget Sound region and encompasses the southern reach of Hood Canal. The Olympic mountains make up a significant portion of the county's 960 square miles of land mass and is mostly unpopulated. The area is heavily treed, with large species of Douglas fir, cedar, and other evergreens. Big leaf maples and assorted undergrowth are also present. In densely forested areas, stands of mixed conifer and hardwood that have experienced thinning or clear-cut provide an opportunity for rapidly spreading, high-intensity fires that are sustained until a break in fuel is encountered. Similarly, overstocked forests which are denser and contain trees of the same age (i.e. tree farms) burn hotter and faster. The aggressive suppression of naturally occurring fires reduces organic management of fuels on the forest floor.

4.1.2 Climate (2012)

The climate in Mason County is generally characterized by mild, wet winters and warm, dry summers, typical of a West Coast marine climate. Due to Mason County's proximity to the Pacific Ocean and the Puget Sound, average temperatures remain moderate, relative to the season. Mason County lies on the southeast side of the Olympic Coastal Range, which influences prevailing wind and precipitation patterns. Average temperatures range



from 32°F in the winter to 78°F in the summer. There are approximately three days per year where the high temperature reaches over 90°F. Mason County's average annual rainfall is 64" (US average is 38"), and it experiences a daily average temperature of 51°F. The average monthly precipitation ranges from 10.4 inches in January to 0.8 inches in July. Mason County gets some kind of precipitation, on average 164 days per year. Like much of western Washington, most of the rain falls from October to May; the summer months experience an average of less than two inches of rain per month and represent the time of year with the highest risk of wildland fires.

#### 4.1.3 Wildland Fire Weather

Regarding potential wildland fire activity, relevant weather conditions include temperature, relative humidity, wind speed and direction, cloud cover, precipitation amount and duration, and the stability of the atmosphere. Of particular importance are wind, thunderstorms, and lightning.

- 4.1.3.1 Wind Strong, dry winds produce extreme wildland fire conditions. Such winds generally reach peak velocities during the night and early morning hours. East wind events, which are the primary concern for Mason County fire conditions, can persist upwards of 48 hours, with wind speed reaching 60 miles per hour. Being a coastal community, Mason County experiences significant winds on a fairly regular basis during all times of the year.
- 4.1.3.2 Thunderstorms The thunderstorm season typically begins in June with wet storms and turns dry with little or no precipitation reaching the ground as the season progresses into July and August.
- 4.1.3.3 Lightning FEMA National Risk Index for Lightning classifies Mason County as "Very Low" with a score of 20.5. SOURCE: <u>https://hazards.fema.gov/nri/map</u>
- 4.1.4 Bonneville Power Administration's Public Safety Shutoff Policy (BPA PSPS)

BPA spent considerable effort analyzing its Wildfire Mitigation Program, including its Public Safety Power Shutoff policy in 2021-2022. BPA surveyed its transmission system to identify transmission lines believed to present an elevated risk of igniting a wildland fire, including those in Mason County. For security reasons, they will not publish the list of lines at elevated risk. However, BPA's Transmission Account Executive for PUD 3 sent official notification that *"none of the lines currently identified as elevated high risk affect Mason PUD 3's operations."* (Troy Simpson, BPA Customer Account Executive, 04/21/22 via email)

BPA's Wildfire Mitigation Plan can be found here: <u>https://www.bpa.gov/energy-and-services/transmission/wildfire-mitigation</u>

4.1.5 High-risk Western Fireshed

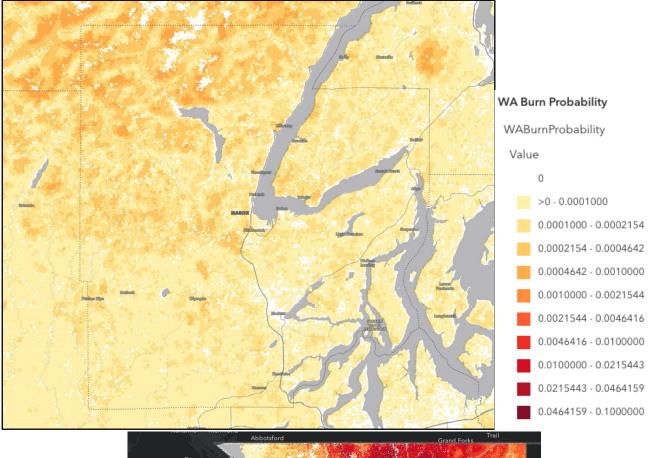
Mason County is not within a "High-risk Western Fireshed" per USDA/US Forest Service Fireshed Registered areas. Firesheds are a way to delineate where fires ignite and are likely to, or not to, spread to communities and expose buildings. Fireshed maps are used to show the source of exposure to fire.

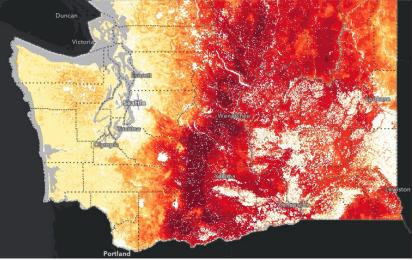


#### SOURCE: https://www.fs.usda.gov/research/rmrs/projects/firesheds#overview

## 4.1.6 Mason County Burn Probability

Burn probabilities represent the likelihood of a given location on your landscape burning. Burn probabilities are related to the sizes of fires that occur on a given landscape. Large fires produce higher probabilities than small fires. Since fire size is a function of both the rate of spread, and the duration of a fire, treatments or weather conditions that reduce the rate of spread will lower the burn probability. PUD 3's service territory registers a Burn probability of less than 0.001. <u>Compare to Washington state</u> below.







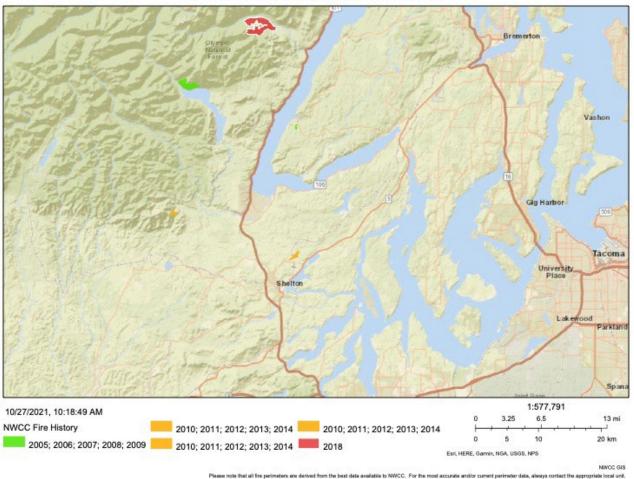
# 5.0 PUD 3'S ELECTRICAL SYSTEM AT A GLANCE (2022) DNR TEMPLATE 3.0

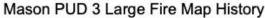
Number of Electric Meters *Approximately 93% are Residential Accounts	35,985
Number of 115 kV to 12.47 kV Substations	12
Overhead Transmission Line Miles (115 kV)	30
Overhead Primary Line Miles (12.47 kV)	709
Underground Transmission Line Miles (115 kV)	0
Underground Primary Line Miles (12.47 kV)	1,127



# 6.0 HISTORICAL WILDLAND FIRE ACTIVITY IN MASON COUNTY

DNR TEMPLATE 3.0





SOURCE: <a href="https://gacc.nifc.gov/nwcc/information/firemap.aspx">https://gacc.nifc.gov/nwcc/information/firemap.aspx</a>

NOTE: The McEwan Fire (2023) burned 235 acres just north of Shelton, in the same area as the Rainbow Lake Fire (2012), but has not yet been added to the NWCC map as of adoption.



# 7.0 WILDLAND FIRE HAZARD AREAS & SPECIAL CONSIDERATIONS DNR TEMPLATE 3.0 & 6.0

Despite the historical lack of major wildland fire-related loss events in PUD 3's service territory, recent events impacting utilities throughout the Western U.S. demonstrate that climate conditions are shifting the risk landscape, even in those areas that were not previously considered fire prone. Assessing where high wildland fire risk areas exist is a priority at PUD 3. The first step to mitigating those risks is understanding the relative risk of a large wildland fire in the different areas of PUD 3's service territory.

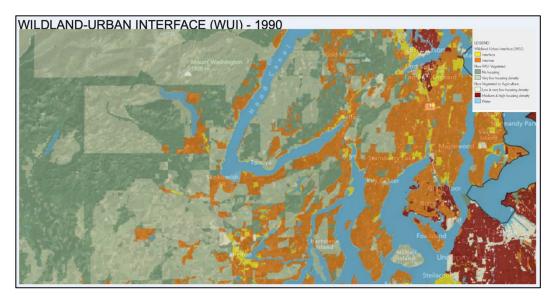
## 7.1 Wildland Urban Interface (WUI) 1990-2010

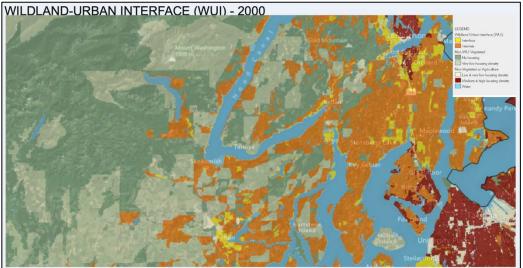
The Wildland Urban Interface (WUI) is the zone of transition between unoccupied land and human development. It is the line, area, or zone where structures and other human development, including utilities, meet or intermingle with undeveloped wildland or vegetative fuels. The WUI extends over a far broader area than many realize and is a dynamic zone. Communities adjacent to and surrounded by wildland are at varying degrees of risk from wildland fire, contingent on extreme wind conditions and extreme drought. As development continues to increase and homes are built at the edge of, and inside densely forested areas, people and structures are at increased risk of wildland fire. WUI provides a relative risk rating for these areas.

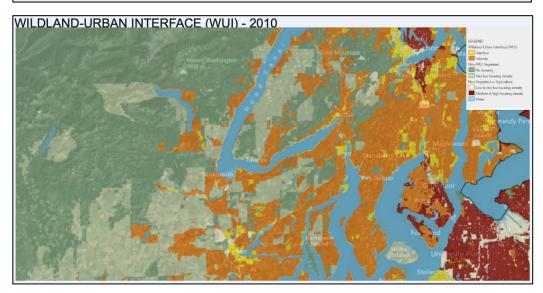
7.1.1 As rural communities such as Mason County continue to grow and develop through rural sprawl, the Wildland Urban Interface increases, as shown in the maps below.

Note the growth of the orange "intermix" layer in the following areas throughout a 20year period: Tahuya River Valley, Old Belfair Highway, Grapeview Loop Road, Harstine Island, Agate, Deer Creek, Shelton Valley/Lake Isabella, Dayton, Little Nahwatzel, and Arcadia areas. SOURCE: <u>http://silvis.forest.wisc.edu/data/wui-change/</u>



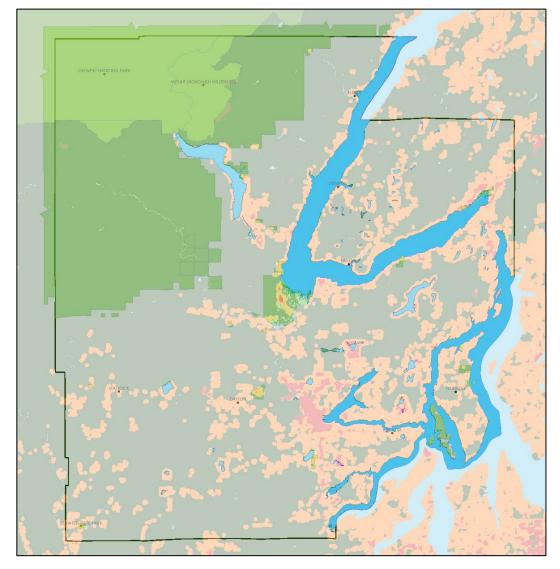








The Wildland Urban Interface (2023) is loaded into PUD 3's GIS System as a dedicated layer for more granular review (snapshot below).



7.1.2 With such a rapid rise in WUI in rural Mason County and potential impacts from utilities, it is prudent to consider <u>most</u> of PUD 3's direct service territory as impacted by WUI as a Wildland Fire Hazard Risk to varying degrees.

# 7.2 United States Forest Service & Olympic National Park

- 7.2.1 PUD 3's service territory includes the United States Forest Service (USFS) and Olympic National Park (ONP) in the upper Lake Cushman area. Dating back to 2005, the largest wildland fires within Mason County have occurred in these areas. These lands are uniquely designated and therefore deserve special consideration as it relates to wildland fire prevention.
- 7.2.2 PUD 3 will only build underground primary distribution through USFS and ONP land.
- 7.2.3 PUD 3 transmission or substation facilities will not be constructed on USFS or ONP land.



7.2.4 PUD 3 has installed a switchable disconnect on the feeder which provides electrical service to these areas. In the event of a wildland fire and at the direction of the USFS or ONP, PUD 3 will open the circuit feeding these areas to reduce the risk of contributing to the ignition of additional fires. This switching device has been placed to limit impacts to as few customers as possible in the event of a de-energization event. DNR TEMPLATE 7.7

# 7.3 Limited Access & Cross-Country Overhead Line Sections

- 7.3.1 PUD 3 makes efforts to install all new underground and overhead facilities along developed and maintained access roads. However, there are a number of line segments that have limited access or route cross-country, away from a traditional developed right of way. With the increase in vegetation exposure under and around equipment, the limited access to address problems, and the greater distance from public roads to observe developing issues, these line segments are given an elevated risk level for Wildland Fire. *DNR TEMPLATE 7.2*
- 7.3.2 Due to the High-Risk nature of Limited Access & Cross-Country Overhead Line Sections, special consideration is given to these areas as it relates to PUD 3's tree trimming and vegetation management program. DNR TEMPLATE 7.3 & 7.4
  - 7.3.2.1 Trees are trimmed back to at least 10' of clearance regardless of voltage to reduce potential for contact, as appropriate.
  - 7.3.2.2 Ground slashing occurs every three years, as needed, and is cleared to 10' away from the outside edges of the overhead conductor.
  - 7.3.2.3 Extra identification, evaluation, and possible removal of hazard trees that could threaten the line is performed annually. This inspection is led by trained and qualified employees such as a Line Superintendent, Tree Trimmer Foreman, and/or General Foreman.
  - 7.3.2.4 Inspections and trimming work are spot checked by the Operations Manager, or designee.
- 7.3.3 Select wood distribution poles and supporting guy poles within Limited Access & Cross-Country Overhead Line Segments are treated with a fire-retardant material. Additional material is kept in stock, which can be deployed if a wildland fire is developing near utility infrastructure and application is appropriate. Material is reviewed and refreshed according to manufacturer's recommendation. *DNR TEMPLATE 7.2*
- 7.3.4 While not technically limited access/cross-country poles, PUD 3 also has a number of up/down riser poles within its underground distribution system which hold protection devices or transformers. This is a legacy construction model and is updated during system maintenance projects. However, due to the underground distribution in these areas, they are not on the normal tree-trimming cycles. Therefore, every five years, these locations are inspected for vegetation growth around the structures and scheduled for tree trimming, if warranted. This infrastructure is updated with current standards when maintenance projects are scheduled in the area. *(Starting in 2024).*

DNR TEMPLATE 7.3 & 7.4



## 7.4 115 KV Transmission Lines

- 7.4.1 PUD 3 interconnects with Bonneville Power Administration's transmission system at five locations, which are all interconnected with BPA at 115 kV:
  - BPA Shelton Substation to PUD 3's Mt. View Substation
  - BPA Olympia-Shelton #1 to PUD 3's Dayton Substation
  - BPA Olympia-Shelton #2 to PUD 3's Skookum Substation
  - BPA Shelton-Kitsap #1 to PUD 3's Benson Substation
  - BPA Shelton-Kitsap #1 to PUD 3's Belfair Substation
- 7.4.2 PUD 3 operates radial transmission line segments from its BPA interconnection points to its substations:
  - BPA to Skookum Substation\* 0.5 miles
  - Skookum Substation to Totten Substation 1 mile
  - BPA to Dayton Substation\* 8.75 miles
  - Mt. View Substation to Mason Substation 2.5 miles
  - Mt. View Substation to Johns Prairie Substation\* 3 miles
  - Benson Substation to Pioneer Substation 5.75 miles
  - Belfair Substation to Union River Substation\* 2.4 miles
  - Union River Substation to Collins Lake Substation 6.7 miles

# \*All or some of this line falls within a Limited Access & Cross-Country Overhead Line Section.

- 7.4.3 All of PUD 3's transmission lines are overhead facilities and operate at 115 kV. PUD 3 does not operate or have any transmission facilities over 115 kV. To reduce potential wildland fire hazards, PUD 3 does not have a reclosing sequence set on 115 kV transmission circuits. PUD 3 does not have any looped transmission circuits. DNR TEMPLATE 7.6
- 7.4.4 Due to the high-risk nature of transmission circuits for system reliability, additional care is taken to ensure these facilities are in top operating condition. DNR TEMPLATE 7.2 7.4
  - 7.4.4.1 Transmission circuits are afforded priority infrared (IR) inspections in the fall of each year and are scanned immediately following all substations. Any hot spots or evidence of tracking that is discovered on transmission structures are addressed with highest priority.
  - 7.4.4.2 A specially trained Journeyman Lineman performs a visual pole top hardware inspection every three years.
  - 7.4.4.3 Additional tree trimming inspections and priority vegetation management practices are conducted on these routes.
  - 7.4.4.4 Pole Inspection, Test, and Treatment (PITT) occurs every five years on wood transmission poles and supporting guy poles as opposed to every ten years on distribution poles.

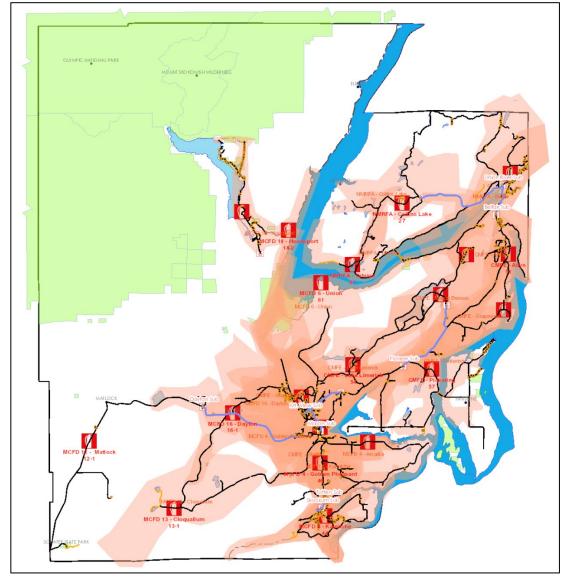


- 7.4.4.5 All appropriate wood transmission poles are treated with a fire-retardant material. Material is reviewed and refreshed according to manufacturer's recommendation.
- 7.4.4.6 All transmission poles that are replaced in Limited Access & Cross-Country areas will be of non-combustible material. New transmission circuits are constructed with non-combustible poles.

#### 7.5 Fire Response Times

#### DNR TEMPLATE 6.2

7.5.1 Mason County Fire Districts have both manned and unmanned stations for EMS & Fire response. PUD 3 used GIS-based travel time software to determine extents of response from manned stations within a 15-minute travel time, see map below. This can help to identify areas with higher vulnerability to wildland fire impacts due to slower firefighting response. These zones are loaded into PUD's GIS System as a dedicated layer.





- 7.5.1.1 Notable areas that are outside the 15-min fire response time of manned stations and are served by overhead power lines include those listed below. These should be considered elevated fire risk areas:
  - All of Matlock, including Deckerville, Fish Hatchery, Boundary Road, Schafer State Park
  - Crestview, Shorecrest, Leeds Drive, Daniels Road, the backside of Big Timber Lake
  - Deer View Circle, North & South Harstine Island Road
  - Bear Creek Dewatto Road, Dewatto Holly Road
- 7.5.2 When designating unmanned stations (which are staffed by volunteers) with a 15-minute response time, <u>the entire Mason PUD 3 service territory is covered</u>. Fire Districts initiate their up-staffing policies and are on heightened alert for immediate response during Fire Weather designations.

# 8.0 WILDLAND FIRE RISK DRIVERS & PUD 3 RESPONSE

## 8.1 Fire = Fuel + Ignition Source.

# 8.1.1 This Wildfire Mitigation Plan addresses PUD 3's efforts to mitigate the risk of wildland fire ignitions and fuel through the recognition of the industry-wide fire equation, *"Fire = Fuel + Ignition Source"*. It is through this lens that we address the solutions included in this document.

8.1.2 PUD 3 has identified the key risk drivers inherent in its electrical system. It is widely accepted that managing risk drivers appropriately can help mitigate powerline ignited wildland fires. Generally, in a faulted or abnormal condition, electrical energy is released as heat resulting in a spark that can ignite a fire. Depending on the hypothetical ignition's proximity to high density, dry fuel sources and weather conditions (e.g., high wind), a fire event can spread and propagate to become wildland fire.

#### 8.2 Fire Weather

#### DNR TEMPLATE 6.1 & 7.1

DNR TEMPLATE 6.2

8.2.1 The National Weather Service issues different warnings at the onset or possible onset of critical weather and dry conditions, which could rapidly increase wildland fire activity ("Fire Weather"). A Red Flag Warning (RFW), the highest alert, is released when weather events may result in extreme fire behavior within 24 hours. A Fire Weather Watch (FWW), one level below an RFW, is released when weather conditions over the next 12-72 hours put fire danger at a high level.



- 8.2.1.1 This is an example of how PUD 3 educates staff and customers about Fire
  - Weather levels:

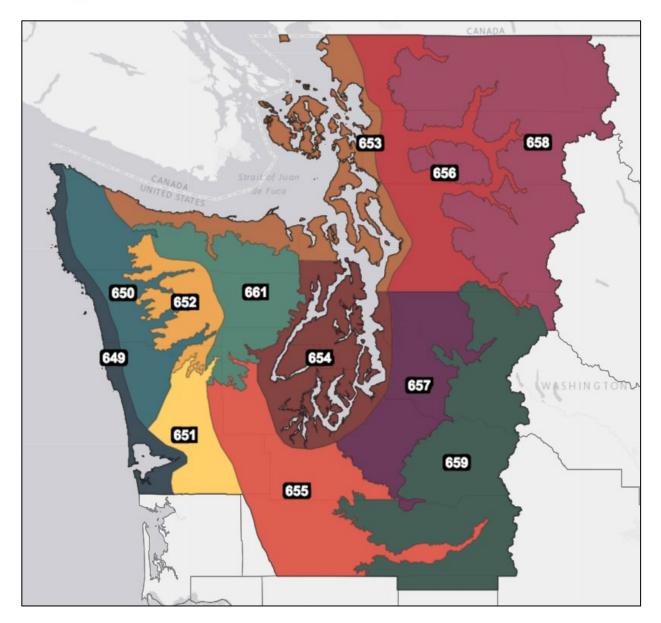
In the taco graphic (which is making me hungry), we illustrate what it means to have a weather "watch" versus a weather "warning." For example, a few days in advance of a heat wave, winter storm, or many other possible weather conditions, we might get a "fire weather watch" or "winter storm watch," etc. It basically means that all the conditions are present and folks



should listen up for updates. AKA, the ingredients for the taco have been gathered and a taco could be built in the near future. A "warning" means that the potentially dangerous weather is happening now or is coming very soon and you should take action accordingly. AKA, the tacos are built and are being consumed. DNR TEMPLATE 7.5 & 8.0

- 8.2.1.2 Local Mason County Emergency Services Officials monitor additional resources such as the DNR Wildfire Intel Dashboard and the Northwest Interagency Coordinate Center's predictive tools. In some cases, official Fire Weather designations may not be triggered by the National Weather Service, even though heightened wildland fire conditions may arise locally in Mason County. When this occurs, local resources notify PUD 3 of developing conditions so that the appropriate response postures (as described below) can be put into place. DNR TEMPLATE 5.4
- 8.2.2 Mason County is covered by three separate Fire Weather Zones: 654, 655, and 661. The zones are designated based on the climatology commonly found within the zone. If a Fire Weather designation is issued for one part of the zone, it should be considered applicable to all of the zone. Fire Weather Zones are loaded into PUD 3's GIS systems to correctly identify electrical circuits within each zone.



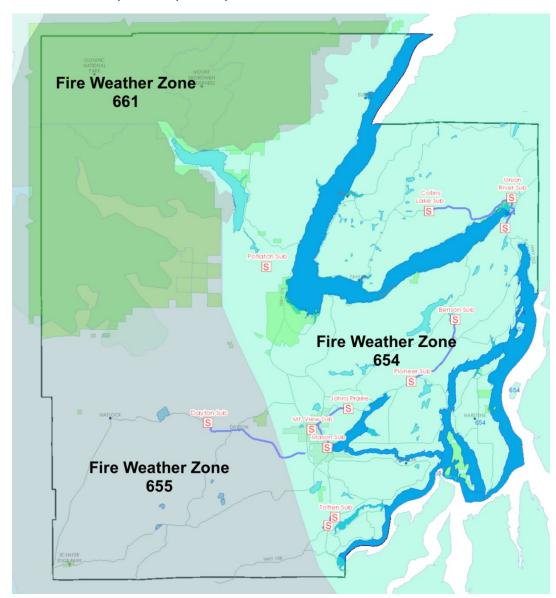


8.2.2.1 Historical Data for Fire Weather in Mason County, <u>1986-2023</u>:

- **ZONE 654** received 33 Fire Weather designations
- ZONE 655 received 42 Fire Weather designations
- ZONE 661 received 38 Fire Weather designations

SOURCE: Iowa State University, https://mesonet.agron.iastate.edu/vtec/search.php





8.2.2.2 PUD 3's System Map overlayed on Fire Weather Zones:

8.2.2.3 PUD 3 does not have any electrical facilities in Fire Weather Zone 661.

- 8.2.3 The Public Information Officer, Operations Manager, Director of Engineering & Utility Services, and Safety Coordinator monitor these National Weather Service designations. The Public Information Officer, or their designee, communicate to all staff when Mason County is experiencing an elevated wildland fire risk level. Each supervisor is responsible for ensuring their team members received the message and modify work plans accordingly. DNR TEMPLATE 5.1 & 7.1
- 8.2.4 These are the actions taken when a <u>Fire Weather Watch</u> is declared:
  - 8.2.4.1 Crews limit activities in elevated fire risk areas, such as Limited Access & Cross-Country Overhead Line Segments and areas that are outside of a 15-minute response time from a manned fire station. If critical work must happen in an elevated fire risk area, additional awareness and precautions are taken, and the



situation is reviewed in tailboard meetings. Field personnel have fire suppression equipment available on each vehicle.

- 8.2.4.2 OnCall Supervisors, on-duty Linemen, and after-hours Linemen are notified of Fire Weather Watch conditions and remain on standby to immediately respond.
- 8.2.5 These are the actions taken when a <u>Red Flag Warning</u> is declared:
  - 8.2.5.1 All of the Fire Weather Watch actions above, and;
  - 8.2.5.2 Circumstances are evaluated and an informed decision is made by Engineering & Operations Leadership for the District's plan of response. Potential action may include:
    - Increased number of stand-by Linemen or other Operations personnel.
      - Consider staging Operations personnel throughout the service territory in strategic areas, if warranted.
    - Dedicated tasking of SCADA & System Engineering personnel to execute the District's readiness and response, as necessary.
    - At the direction of the Operations Manager; the Wiremen, Linemen, and/or the SCADA Group (in extreme circumstances) set breaker and recloser controls that serve the affected area to a "High Fire Risk" settings group. This disables reclosing on all distribution devices. It also sets the pickup time for fault detection to the most sensitive possible settings to ensure protection equipment opens as quickly as possible to reduce time allowed for energized equipment to come into contact with fuel sources.
      - <u>This may mean increased outages for customers, both in</u> <u>frequency and duration.</u>
      - Not all PUD 3 protective devices have the ability to be placed into this "High Fire Risk" settings group. Please see the section regarding Future System Hardening Projects for the planned expansion of this capability to all areas of the system.
      - Settings are returned to normal as soon as possible when the elevated risk period expires.
      - Settings adjustments will be executed and documented through the District's standard switching order procedures.
      - PUD 3 does not have a reclosing sequence set on its transmission circuits.
      - DNR TEMPLATE 7.6 & 7.7
- 8.2.6 Following the expiration of the Fire Weather designation, District leadership debriefs the situation and its response to identify areas of success or needed improvement.
- 8.2.7 As of the time of adoption, PUD 3 has not pre-emptively shut off electricity in response to elevated wildland fire risk through a Public Safety Power Shutoff (PSPS).



## 8.2 Potential Hazards – Electrical Equipment; Minimizing the Likelihood of Ignition

#### 8.3.1 Wire-to-Ground Contact

#### DNR TEMPLATE 4.1 & 7.2

When an energized power line falls to the ground (or makes contact with a foreign object), the system is designed to operate a fault interrupting device to open the circuit and de-energize the line. However, there are times that the system does not operate as quickly as designed and the line may remain energized on the ground. This can be due to insufficient fault current, errors in protection coordination, or unique circumstances regarding the damaged equipment. If the protection devices do not operate, there is potential for live, energized lines to make contact with people, foreign objects, or fuel sources. This is an extremely unsafe and hazardous situation, which in some cases may cause a fire. While all situations are unique, it is important to have a protection scheme that is well-coordinated, properly configured, and clearly documented. *Please see Section 10.0 regarding Future System Hardening Projects for plans to perform a Coordination Study on all PUD 3 feeders.* 

#### 8.3.2 Tree Wire

PUD 3 uses covered conductor ("tree wire") supported by insulators on crossarms in horizontal framing in almost all new overhead power line construction. This covering reduces potential contact with the energized conductor from objects such as vegetation, wildlife, and other equipment (e.g. wood crossarms); including phase-off-glass, conductor slap, and flashovers/phase-to-phase faults. By reducing this contact potential, PUD 3's system sees less faults and therefore less faulted conditions which have the potential to emit sparks and ignite any fuels in the vicinity. While it is more expensive, heavier, and more difficult to work with than bare conductor, the use of tree wire is critical for the safe and reliable operation of PUD 3's electrical system. Tree wire is not rated to insulate for nominal system voltage and therefore it is not rated for human contact.

#### 8.3.3 Lightning Arrestors

Lightning strikes are not as common in Mason County as in other parts of the country. However, when lightning occurs, there is a potential for a direct strike to power lines or structures. This could result in flashover, ignition of the wood pole, melted and broken conductor, or ground wire damage. PUD 3 has taken steps to mitigate the damaging effects of lightning on its system by installing lighting arrestors on all overhead to underground primary taps throughout the distribution system. Additionally, new transmission circuits and any full circuit re-conductor transmission projects will be constructed with a shield wire above high voltage conductors, where appropriate.

8.3.3.1 Glass Arrestors & Old Terminators

PUD 3's old style glass-based arrestors can be quite explosive when operating. At times, this can spread hot debris around the base of the pole, potentially igniting dry fuel sources. PUD 3's new style polymer arrestors do not carry such a great risk.

**Change of Standard Operating Procedure** – At all underground faults, while the crew is waiting on locates or before cable is re-energized, all arresters and

#### DNR TEMPLATE 4.1 & 7.2

DNR TEMPLATE 4.1 & 7.2

#### DNR TEMPLATE 7.2.2



terminators will be thoroughly inspected for integrity concerns and updated to current standards with new equipment as necessary. (*Enacted Spring 2023*)

#### 8.3.4 Expulsion Fuses

#### DNR TEMPLATE 4.1, 7.2, 7.3

The utility industry typically installs expulsion fuses on transformer and tap-lines to protect and isolate parts of the system that have experienced a faulted condition. Expulsion fuses utilize lighting a tin or silver-link element in an arc-tube that vents gas and potentially molten metal to the atmosphere to extinguish an arc created by a faulted condition. The molten metal can be a source of ignition for fire.

PUD 3 looks for opportunities to reduce expulsion fuse sizing where possible to provide for a safer and better-coordinated electric system. Additionally, each location with larger 100T & 140T fuses has been site visited to review the presence of vegetation in the area. Ground vegetation is removed from vulnerable areas. Each of these areas receives an annual application of herbicide to keep vegetation down and crushed black rock is placed at least 10' around the base of the pole. (*Starting in 2024*)

#### 8.3.5 Animal Caused Outages

#### DNR TEMPLATE 4.1, 7.2, 7.3

Animal contact is a common cause of outages in Mason County. When a fuse operates, there could be an expulsion of sparks. Additionally, and tragically, the animal itself may be charred and fall to the ground as an ignition source. PUD 3 analyzes outage data each year to determine frequent animal-caused outage locations. Strategic prevention measures including tree trimming, pole framing, wildlife guards, and covered jumpers are deployed to reduce the risk of ignition through animal contact, and nuisance outages to customers.

PUD 3 does not utilize Wildlife Guards in all new construction because the wet climate causes moisture to collect on the polymers and moss eventually forms. This can cause tracking, faulted conditions, and unnecessary interruptions of service. Use of Wildlife Guards should be reserved for strategic applications where appropriate.

#### 8.3.6 Equipment Malfunction & Failure

#### DNR TEMPLATE 4.1 & 7.4

Equipment malfunction and failure can occur during its service life for many reasons. Most equipment requires regular maintenance for optimal performance. Even though PUD 3's qualified personnel perform regularly scheduled inspections and maintenance on electrical system equipment, internal defects not visible or predictable can cause destructive equipment failure resulting in the ejection of sparks and/or molten metal. The failure of hotline clamps, arrestors, terminators, connectors, splices, switches, and insulators can result in equipment failure and line-to-ground contact. Transformers and capacitor banks can have internal shorts, potentially resulting in the ejection of materials, which could be an ignition source.

Please see PUD 3's **System Inspection & Response Policy** for details regarding the inspection and replacement of electrical system assets including poles; and overhead, surface-mounted, and underground equipment. Detailed areas of inspections found in the policy include: Infrared (IR) Thermography Inspections (See National Fire Protection Association 70B); Pole Inspection, Test, and Treatment (PITT) Program; General Foreman System Inspections; and Meter Inspections.



#### 8.3.7 Third-Party and Sub-Contractors

DNR TEMPLATE 4.1 & 7.5

Construction projects by non-PUD 3 crews are another possible cause of ignition. Construction equipment, vehicles, and non-utility personnel working near power lines can contact conductors, causing a faulted condition. Excavation work performed without locating underground utilities is another hazard. PUD 3 performs pre-construction meetings with all contractors working on behalf of the District on or near its facilities. One of the items reviewed during their pre-construction meeting is this Wildfire Mitigation Plan and its impacts to their work zone and practices.

# 9.0 STANDARD OPERATING PROCEDURES FOR WILDLAND FIRE PREVENTION

#### 9.1 Fire Suppression Equipment

#### DNR TEMPLATE 7.5

- 9.1.1 All PUD 3 vehicles are equipped with fire suppression equipment including Class ABC Fire Extinguishers. All PUD 3 employees receive annual training on how to use a fire extinguisher and Emergency Prep & Response for Wildfires.
- 9.1.2 All vehicles for field personnel (e.g. line trucks, tree crew trucks, IR scanning, and bird dog engineering trucks) carry a shovel and fire rake. Field personnel are trained in the use of this fire suppression equipment biennially.
- 9.1.3 The District has several tow-behind firefighting water trailers that are brought to the job site for fire suppression in elevated fire risk situations or when conditions/tasks warrant.

#### 9.2 Vegetation Management

#### DNR TEMPLATE 7.3

9.2.1 PUD 3 has two full-time and one contract tree crew to perform tree trimming, tree removal, and other vegetation management best practices throughout its system. In addition to reducing potential contacts, PUD 3's vegetation management program also reduces potential fuel sources in the vicinity of electrical infrastructure. Please see PUD 3's Line Clearance & Vegetation Management Policy and Specifications for detailed information regarding PUD 3's vegetation management program.

Declining forest health due to impacts from climate change leave greater quantities of dry, dead fuel, and a higher potential for mature, formerly-healthy trees to fall into lines from a further distance. The continued focus and expansion of the vegetation management program is critical in reducing wildland fire risk within the District and increasing system reliability.

Local firefighting resources also benefit from the District's vegetation management program as it relates to increased buffer space for fire breaks along rights of way.

#### 9.3 Tree Crew Procedures

#### *DNR TEMPLATE 4.1 & 7.5*

9.3.1 PUD 3 tree crews may work in areas of highest fire risk due to thicker vegetation and the nature of their assigned tasks. Their vehicles often travel off road or on utility access roads. This increases the risk of a hot surface of the vehicle undercarriage contacting a fuel source such as dry grass or brush. Their equipment includes chainsaws and other small combustion engines which can get hot when operating. To reduce the risk of igniting



fires, these crews work a modified schedule of 0600 to 1630 from June through September, keeping the work outside of the hottest/driest periods of day. They are also trained in fire prevention techniques and fire suppression equipment. On days that are designated Fire Weather Watch or Red Flag Warning, work is reassigned to lower risk areas, or designated staff remain on fire-watch for up to three hours to ensure no ignition occurs in high-risk areas.

#### 9.4 Radio Coverage

## DNR TEMPLATE 5.0, 7.2, 7.5

9.4.1 Mason County's mountains, trees, and waterways make land-mobile-radio coverage very challenging. However, PUD 3's radio network has near blanket coverage within its service territory. The radio channel is monitored 24/7/365 by PUD 3 personnel, including a dedicated operator while crews are in the field. Even without adequate cell coverage, a PUD 3 employee can radio in the need to call 911 and to contact local fire departments for emergency response. This greatly reduces mobilization time, were a fire to occur.

A mobile radio handset can be provided to a Wildfire Event's Incident Command Post (ICP) to ensure swift and clear connection to PUD 3 resources and operational leadership, if applicable.

As trees grow and other factors inhibit coverage of the radio network, PUD 3 will add infill repeaters to ensure field crews can always reach the Operations Center. This is critical for high standards of safety.

# **10.0 FUTURE SYSTEM HARDENING PROJECTS & TIMELINES**

# DNR TEMPLATE 7.2

PUD 3's distribution system has been well designed to provide safe, reliable, and economical services to Mason County, without historical impacts from/to wildland fires. However, with the changing climate, expanding Wildland Urban Interface, and increasing risk of wildland fires across the West, it is prudent to plan, develop, and execute Future System Hardening Projects to reduce the risk of wildland fires being caused or fueled by PUD 3 facilities. These projects are categorized below under **HIGH**, **MEDIUM**, **LOWER** priorities and will be addressed and worked as such.

#### **HIGH PRIORITY**

#### 10.1 System-Wide Coordination Study

PUD 3 has never performed a system-wide coordination study. This is a large multi-year undertaking, which will yield critical results and improvements in system protections and establish a standardized protection documentation process. This will result in a reduction of nuisance outages to customers; ensure that protection schemes coordinate from the breaker at the substation through each tap at the end of the line; provide continuity planning in the event of employee turnover; and provide labeling on key structures to ensure the proper fuse size is replaced when blown.

Additionally, a coordination study undertaken under the influence of this Wildfire Mitigation Plan applies desired pressure to reduce expulsion fuse sizes to minimize operation time, where possible, and implement smarter fusing schemes.

#### DNR TEMPLATE 4.1 & 7.2



This process also provides the opportunity to 1) replace larger fuse locations with Vacuum Fault Interruption (VFI) options that do not emit sparks when operating and allow for a SCADA connection, where appropriate; and 2) upgrade electro-mechanical relays within substations to microprocessor-based versions, which allow for better reliability, more sensitive settings, and a SCADA connection (*completed in 2024*).

Partner projects include Feeder Balancing and Phase Balancing.

Estimated Project Timeframe: 2023-2026 for Analysis and Reports on All Feeders.

#### **10.2** Deploy Hot Line Tag Settings on All Relays

#### DNR TEMPLATE 7.6 & 7.7

Hot Line Tag is a relay setting generalized as "the fastest the relay can operate". Hot Line Tag is the setting which should be enabled when qualified workers are performing work on an energized circuit. This ensures that in the unlikely event of a flashover, the relay will operate as fast as possible to limit total arc flash energy. Not all relays have a button that is clearly labeled "Hot Line Tag". However, all programmable relays have the ability to create a settings group with modified trip logic that can act as a "Hot Line Tag". This should be programmed on all capable controls and information communicated to Operations for their training and implementation as best practice.

Estimated Project Timeframe: Coordination with Operations beginning in 2023. Implementation on all devices by End of Year 2026 via Coordination Study outcomes.

#### **MEDIUM PRIORITY**

#### **10.2** Regional Situational Awareness/Monitoring Technology Pilot Project DNR TEMPLATE 7.2.2

ALERTWest has developed a situational awareness platform based on camera images and software analysis (alertwest.live/cameras). When hazards are identified, ALERTWest alerts emergency response assets for dispatch through established channels. PUD 3 proposed a public-private partnership to expand ALERTWest's coverage area into Mason County which would allow for more expedited identification and response to anomalies that may be related to wildland fire or other threats.

Estimated Project Timeframe: Coordination with ALERTWest began in Q1 2024, with potential sites identified shortly thereafter. Partnership details and implementation to follow.

#### **LOWER PRIORITY**

# **10.3** Replace Oil-Interrupting Reclosers with Vacuum Fault Interruption (VFI) protection devices DNR TEMPLATE 4.1 & 7.2.2

Oil-interrupting reclosers are old technology and have a higher likelihood to fail, which includes the risk of spraying or leaking internal oil. Additionally, this vintage recloser technology does not allow for custom setting groups, communications, or remote operation. These should be evaluated and replaced with a VFI protection device that is SCADA-capable, if appropriate. PUD 3 currently has oil-interrupting reclosers at the following structures.

- S/N: 408-01, DA4, Boundary Cut-Off
- S/N: 097-18, BF2, Lakeland Village 500 Feed
- S/N: 666-14, PO1, Cushman Overlook
- S/N: 394-02, DA2, Lake Arrowhead



## 11.0 RESPONSE & RECOVERY TO WILDLAND FIRES

## DNR TEMPLATE 4.2

This section consists of procedures in response to active wildland fires, de-energization, and other wildland fire-related emergency events. The aim is to formalize protocols for these situations for thorough and efficient communications, emergency response, and recovery efforts.

#### 11.1 De-energization for Wildland Fire Events

## DNR TEMPLATE 7.7

- 11.1.1 PUD 3 may elect to de-energize segments of its system due to extreme weather (See Red Flag Warning section) or by request from emergency services officials to ensure the safety of the public and first responders. Best effort will be made to minimize outage size and duration, while creating and maintaining safe conditions as it relates to utility infrastructure.
  - 11.1.1.1 Shutting off power may not always be the safest response to the hazard conditions. Power may be required for community wells and water system operations so that firefighting personnel can access utility services to perform their work, as well as cell towers and communication sites so that response can be coordinated. DNR TEMPLATE 5.2 & 5.3
- 11.1.2 Remote operation of SCADA connected devices, where capable, may occur in emergency situations, as approved by the Operations Manager or their designee. These remote control protocols will only be utilized to OPEN line sections to de-energize equipment for safety. Re-energizing will follow PUD 3's established patrolling, inspection, and line clearance procedures. DNR TEMPLATE 7.6 & 7.7
- 11.1.3 Inaccessible equipment or distribution lines will remain de-energized until accessible. As soon as it is deemed safe by the appropriate fire and emergency management officials, PUD 3 crews patrol every line section and structure to ensure no hazards have affected the system during the event. Limited Access & Cross-Country Line Sections may require additional time for inspection. PUD 3 personnel assist in clearing downed trees and limbs to access PUD equipment, as needed.
- 11.1.4 Poles and structures that are damaged in a wildland fire are assessed and rebuilt as needed before re-energization. Repair plans prioritize substations and transmission facilities, then distribution circuits serving the most critical infrastructure needs and most customers. While the goal to re-energize all areas is as soon as possible, emergency services, medical facilities, and other community centers receive first consideration when resources are limited. Additional crew and equipment (and/or Mutual Aid) are dispatched as necessary and available. DNR TEMPLATE 9.0
- 11.1.5 Please see PUD 3's **Planned Outage Notification Procedures** for the District's procedures on communicating planned outages to affected customers and media.
- 11.1.6 Please see PUD 3's **Dissemination of Public Information Policy** for the District's procedures on outage and crisis communication.
- 11.1.7 Please see PUD 3's **Business Continuity Plan** for the District's response to disasters such as wildland fires and other similar events which may impact operations.



#### 11.2 Wildfire Event Incident Command Post (ICP)

## DNR TEMPLATE 5.4

- 11.2.1 Depending on the wildland fire event and its impact on PUD 3's facilities and services, the District may provide a knowledgeable resource such as an OnCall Supervisor or a member of the Senior Leadership team to report to, and/or be stationed at the Incident Command Post for close coordination between emergency services response command and PUD 3.
  - 11.2.1.1 It is important for PUD 3 to be notified of the status of BPA-related requests or actions (e.g. PSPS) which may have an impact on PUD's electric grid.

## 12.0 PREPAREDNESS, COORDINATION, COMMUNITY PARTNERSHIP

#### **12.1** Coordination with Fire Districts, DNR FIRE, & MACECOM DNR TEMPLATE 2.3, 5.4, 10.3

- 12.1.1 PUD 3 coordinates with its local emergency response agencies, including MACECOM, Fire Districts (Central Mason Fire; North Mason Regional Fire; Districts 4, 12, 13, 16, 18), Department of Natural Resources, U.S. Forest Service, and other relevant local, tribal, and state agencies as peer partners.
- 12.1.2 In response to all emergency events, PUD 3 collaborates with the Mason County Division of Emergency Management and the City of Shelton to ensure effective communication and coordination. PUD 3 has access to the Mason County Emergency Operations Center (EOC) and is alerted when the EOC opens.
- 12.1.3 This Wildfire Mitigation Plan is reviewed with leadership of local emergency response groups, the Squaxin Island Tribe, and the Mason County Fire Marshal every three years to ensure coordination best practices are up to date.

#### 12.2 PUD 3 is an Emergency Response Agency

#### DNR TEMPLATE 4.2 & 5.4

12.2 PUD 3 is an emergency response agency and therefore requires access to its Johns Prairie Operations Center (2621 E Johns Prairie Road Shelton, WA 98584) and other facilities in all conditions. Please see PUD 3's **Emergency Evacuation Plan** regarding steps that are taken to ensure defensible barriers of its facilities and the unique circumstances by which an evacuation of the facility may be considered.

#### 12.3 Reporting Fires

# DNR TEMPLATE 5.4 & 7.5

- 12.3.1 In the event of a fire, PUD 3 personnel or contractors shall call 911, and then their PUD 3 supervisor, who will report it to the Public Information Officer, who in turn reports it to District Leadership. If cell coverage is not available, PUD 3 personnel are to utilize the PUD's land-mobile-radio to ensure the emergency situation is communicated and emergency response is dispatched.
- 12.3.2 When reporting a fire, PUD 3 personnel or contractors are to provide the following information:
  - Full Name and Employer
  - Call Back Telephone Number



- Project Name
- Fire Location: Legal Description, if available (Township, Range, Section is found on Work Order Staking Sheets); and Address, Descriptive Location, or Reference Point
- Fire Information, if known: Including Acres, Rate of Spread, and Wind Conditions.

#### 12.4 Limited Evacuation Routes

DNR TEMPLATE 3.0 & 6.2

- 12.4.1 Mason County is not designated as a Limited Evacuation Area. SOURCE: <u>https://www.streetlightdata.com/limited-evacuation-routes-map</u>
- 12.4.2 However, there are locations within Mason County which are more susceptible to ingress/egress challenges. These include Harstine, Stretch, and Treasure Islands, which each have a single bridge, with no ferry service. This can hamper firefighting efforts and make evacuation difficult. Additionally, Hwy 119 is the only paved ingress/egress to the Lake Cushman community. Extra care should be taken in these areas during Fire Weather conditions.
- 12.4.3 This is an example of how PUD 3 educates staff and customers about Evacuation Levels:



#### **12.5** Customer Communication Related to Wildland Fire & Preparedness DNR TEMPLATE 8.1

12.5.1 PUD 3 maintains clear and trustworthy communication with its customers through various channels including website, social media, newsletters, and direct communication via mail, email, robocalls, SMS text, and its SmartHub application.



- 12.5.2 Public outreach to the community on the importance of wildland fire prevention helps reduce wildland fire risk. Messaging related to wildland fire preparedness and residential fire preventative measures before every fire season can help to create an awareness of fire danger in Mason County.
- 12.5.3 In addition to electrical safety and its connection to potential fires, PUD 3 provides customer-friendly information regarding:
  - Fire Season Preparation
  - National Weather Service Alerts and how they may impact electrical service.
  - Fire Protection in the Wildland Urban Interface and Defensible Space Regulations
- 12.5.4 PUD 3 proactively talks about its Wildfire Mitigation Plan and the possibility of a Public Safety Power Shutoff (PSPS) in certain conditions to keep the community safe. By messaging about this serious topic during normal conditions, when/if conditions become hazardous and action is required by the District, the community will have a better understanding of the reasons behind the safety protocols. The District demonstrates care to its community by adhering to the safety protocols laid out in this Wildfire Mitigation Plan.
- 12.5.5 Each May, PUD 3 participates in National Wildfire Awareness Month messaging.
- 12.5.6 Each September, PUD 3 participates in National Preparedness Month messaging.
- 12.5.7 In addition to over-the-phone reports of hazard trees, PUD 3 receives hazard tree reports from customers at <u>www.pud3.org/hazardtree</u>. PUD 3's tree crew reviews and addresses each reported tree, as appropriate. *DNR TEMPLATE 7.3*
- 12.5.8 PUD 3 also regularly communicates to customers about planting the right tree in the right place to limit potential conflicts and contact with power lines as the tree grows and matures. DNR TEMPLATE 7.3

# 12.6 Employee Training

- 12.6.1 This Wildfire Mitigation Plan is distributed at all Safety Meetings annually prior to wildland fire season. Relevant highlights for each group are discussed in specific departmental safety meetings (e.g. Operations, Engineering, Admin).
- 12.6.2 All field employees are trained in *Emergency Prep & Response: Wildfires* through the District's annual OSHA training program. All employees receive general fire prevention training through other classes in the same program. Additional training such as NWPPA's Fire Mitigation Hazards is also offered from time-to-time.
- 12.6.3 Relevant Wildfire Smoke Tips are shared on the internal PUD communications networks during heightened seasons or events.
- 12.6.4 In compliance with the Washington Wildfire Smoke Emergency Rule (WAC 296-62-085), PUD 3 provides staff training on wildland fire smoke and its hazards.
- 12.6.5 Please see PUD 3's **Wildfire Smoke Response Plan** for the District's policy and procedures as it relates to wildland fire smoke.

DNR TEMPLATE 7.5



#### 12.7 Wildland Fire Related Helpful Links

DNR TEMPLATE 5.4 & 7.5

- Northwest Interagency Coordination Center: <u>https://gacc.nifc.gov/nwcc/information/firemap.aspx</u>
- Department of Natural Resources Wildfire Intel Dashboard: (unfriendly URL)
- Washington's Air Monitoring Network: <u>https://enviwa.ecology.wa.gov</u>
- US EPA AirNow: <u>https://www.airnow.gov</u>
- US Forest Service: <u>https://tools.airfire.org/monitoring</u>
- Washington Smoke Information: <u>https://wasmoke.blogspot.com</u>
- Dept of Ecology Smoke Forecast Tool: <u>https://enviwa.ecology.wa.gov/home/text/421#Forecast</u>
- InciWeb: <u>https://inciweb.nwcg.gov</u>
- <u>National Weather Service: www.weather.gov/fire</u>
- USDA WildfireSAFE GIS Tool: <u>https://wildfiresafe.fs.usda.gov/pro/</u>
- Severe Fire Danger Index: <u>https://www.fs.usda.gov/research/rmrs/news/highlights/anticipating-severe-fire-severe-fire-severe-fire-danger-index</u>

# **13.0 AUDIT & EVALUATION OF THE PLAN'S PROCEDURES AND GOALS** DNR TEMPLATE 10

# 13.1 Annual Review (Staff)

This Wildfire Mitigation Plan is reviewed annually each February (prior to wildland fire season) with (at least) the Director of Engineering & Utility Services, the Operations Manager, and the Public Information Officer to ensure processes are in place for successful operation of the system in the event of a wildland fire.

This plan also lays out several action steps by the District, along with target timeframes. This annual review will include confirmation/removal of work completed and/or an update in timeframes.

Inspection results and performance metrics are included in various Annual Reports prepared by District staff, including the: *Tree Trimming Report, Wood Pole Report, Infrared Report, Animal Caused Outages Report,* and *System Reliability Report.* 

#### 13.2 Tri-Annual Review (Commission)

Every three years, beginning in 2024, this Wildfire Mitigation Plan is to be reviewed and approved by the Mason PUD 3 Board of Commissioners and submitted to the Department of Natural Resources and the Utility Wildland Fire Prevention Advisory Committee, per RCW 19.29A.170.



Revision	Date	Description of Change	Approval By
Original a	March 2022		Manager
b	April 2022		Manager
С	March 2023		Manager
d	July 2024		Manager
е	October 2024		Commission/CEO