

4
5 DIRECT TESTIMONY OF
6 BRANDI L. HELLWINKEL
7 ON BEHALF OF NORTHWESTERN ENERGY
8

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1 **Witness Information**

2 **Q. Please identify yourself, your employer, and your job title.**

3 **A.** My name is Brandi L. Hellwinkel. I am NorthWestern Corporation d/b/a
4 NorthWestern Energy's ("NorthWestern") Manager of System Assets.

5
6 **Q. Please provide a description of your relevant employment experience
7 and other professional qualifications.**

8 **A.** I have 14 years of experience working for NorthWestern in various
9 engineering and management roles of increasing responsibility within some
10 aspect of Asset Management for transmission and distribution, natural gas
11 and electric systems.

12
13 I also hold a Bachelor of Science in Civil Engineering from Montana State
14 University and am a licensed Professional Engineer in the state of Montana.

15
16 **Purpose of Testimony**

17 **Q. What is the purpose of your testimony in this proceeding?**

18 **A.** The purpose of my testimony is to present and describe NorthWestern's
19 Wildfire Mitigation Plan ("WMP"). I also discuss the estimated costs of the
20 WMP.

1 **Wildfire Mitigation Plan**

2 **Q. Please describe NorthWestern’s WMP.**

3 **A.** NorthWestern’s WMP is a comprehensive document to describe the potential
4 wildfire risk that NorthWestern is facing and the planned wildfire mitigation
5 efforts. Mitigation efforts include both established programs and practices, as
6 well as the enhanced components that were identified in the 2022 Enhanced
7 Wildfire Mitigation Plan (“EWMP”). In addition to those established and
8 enhanced activities, the WMP also discusses the operational and
9 communication philosophies around wildfire mitigation.

10
11 The objectives of the WMP are: to reduce ignition potential, improve system
12 and environmental monitoring, enhance vegetation maintenance, and enrich
13 public communication and outreach. To meet these objectives, the WMP is
14 broken into five categories:

- 15
16 1. **Situational Awareness** is the grouping of activities that formalizes the
17 monitoring of our system through a dedicated team of resources and
18 the implementation of tools and technology. This includes a dynamic
19 risk model with consequence modeling to help drive decision making
20 based on current and forecasted wildfire risk. In addition to the model,
21 NorthWestern is also exploring other technologies such as remote
22 system visibility via smoke detection cameras and improved weather

1 information through a hybrid approach of third-party data and a
2 network of strategically placed weather stations.

3
4 **2. Operational Practices** encompasses monitoring of the transmission
5 and distribution systems, informed decision making for system
6 operational defense strategies, and necessary adjustments to work
7 practices as environmental conditions change. The main components
8 within this category are the investigation and corrective action of
9 momentary operations of the transmission and distribution systems, as
10 well as a standardized approach for adapting operational and work
11 practices across our system informed by real-time awareness of high-
12 risk areas. Depending on model forecasts and local knowledge,
13 operational defense strategies may include actions such as modifying
14 system protective settings to eliminate reclosing and/or increased
15 operating speeds all the way up to initiating a Public Safety Power
16 Shutoff, known as a PSPS, in the most extreme cases. A PSPS is
17 defined as the practice of proactively de-energizing electric equipment
18 during times of extreme weather in localized areas to reduce the
19 probability of electric infrastructure causing a wildfire ignition.
20 NorthWestern may also use this information in active high fire risk
21 zones to adjust work practices such as tool choice, vehicle access
22 routes, or the potential stoppage of proactive work.

23

1 3. **System Preparedness** is a category that groups the construction and
2 maintenance activities NorthWestern employees perform that directly
3 mitigate wildfire risk or have the ancillary benefit of so doing. Activities
4 range from enhanced proactive maintenance to targeted grid
5 hardening and the deployment of advanced technologies on the
6 transmission and distribution systems, all with the intent of reducing
7 ignition potential. The system preparedness portion of the WMP is the
8 largest component in terms of work, resources required, and estimated
9 time of completion.

10
11 4. **Vegetation Management** is an expansion of the current programs
12 NorthWestern has historically deployed. The vegetation management
13 scope strengthens the existing programs at NorthWestern while also
14 increasing situational awareness with a focus on risk mitigation of
15 vegetation-related faults. Strategies within this section of the WMP
16 include, but are not limited to, expansion of proactive maintenance that
17 is technology and data driven to target high wildfire risk zones,
18 enhanced ground and aerial assessments, and fuels mitigation along
19 right-of-ways.

20
21 5. **Communication and Outreach** is targeted at improving customer
22 communication and increasing collaboration with external
23 stakeholders. Ensuring the safety of customers and the public is of

1 utmost importance to NorthWestern. The strategy to achieve this
2 includes informing the public on NorthWestern’s efforts to mitigate
3 wildfire risk, proactively communicating as event conditions change
4 (potentially causing interruption to electric service), and the outreach
5 after an event has occurred to keep the public apprised of the situation.

6
7 **Q. What is the difference between enhanced and established activities**
8 **within the WMP?**

9 **A.** NorthWestern has demonstrated a long history of commitment to safe and
10 reliable service to its customers and communities through investments and
11 operational philosophies. While previous efforts have not focused specifically
12 on wildfire mitigation, effective management of the transmission and
13 distribution assets provided a foundational core to reduce wildfire risk.

14
15 The intention of the WMP is to describe how NorthWestern is addressing
16 wildfire risk. Several of the historical programs have direct or ancillary
17 benefits to mitigating utility-caused wildfire. NorthWestern refers to these
18 activities in the WMP as “established activities” as they have been historical
19 practices that will continue into the future.

20
21 As described in the WMP, NorthWestern recognized that it needed to include
22 new and/or enhance existing programs and philosophies that are specifically
23 focused on wildfire mitigation. NorthWestern refers to these activities in the

1 WMP as “enhanced activities” to recognize the additional effort NorthWestern
2 is putting forth to address the growing concern of wildfire risk. While the
3 EWMP primarily focused on the enhanced activities, the WMP focuses on
4 both the established and enhanced activities to provide a more
5 comprehensive plan on wildfire mitigation.

6

7 **Q. How do the activities outlined in the WMP differ from the EWMP?**

8 **A.** The enhanced activities from the EWMP have been carried over into the
9 WMP and are intentionally separated from established activities for tracking
10 purposes. In general, the enhanced activities remain the same; however, as
11 NorthWestern and the utility industry advance in wildfire mitigation maturity,
12 there are minor scope changes to some activities that are reflected in the
13 WMP. Details on the changes between the EWMP and the WMP are
14 summarized below. Costing details can be found in Appendix D and E of the
15 WMP, which is attached to my testimony as Exhibit BLH-1.

16

17 **1. Situational Awareness**

18 a. The Internal Server/Dashboard and Wildfire Modeling from the EWMP
19 is now referred to as the Dynamic Risk Dashboard and Consequence
20 Modeling to align with industry terminology. The intent of the mitigation
21 strategies remains the same as laid out in the EWMP, but the scope
22 has been refined to reflect progress made over the past year. The
23 internally-built dynamic dashboard is using ESRI GIS technology,

1 system asset information, and a third-party environmental
2 consequence model overlaid with the U.S. Forest Service Severe Fire
3 Danger Index to determine forecasted wildfire risk zones.

4 b. A new strategy called System Monitoring was added to increase
5 situational awareness by deploying field smoke detection cameras.

6 c. Weather Stations are now referred to as Weather Monitoring. In the
7 EWMP, it was scoped for installation of internal weather stations. We
8 are now exploring a hybrid approach to leverage third-party available
9 data in conjunction with internally-owned or contracted weather
10 stations to supplement our data as needed.

11

12 **2. Operational Practices**

13 a. System Operational Defense Strategies were added to the WMP. This
14 includes:

15 i. Enhanced Powerline Safety Settings, which is a modification of
16 protective settings to allow for dynamic response to changing
17 conditions. There are no significant associated costs with this
18 activity; it is an operational philosophy. The costs will be
19 absorbed through normal operational activities.

20 ii. The PSPS plan is a new component in the WMP. Costs
21 associated with this activity are for a third-party consultant to
22 help NorthWestern develop an effective PSPS plan and are
23 projected to be incurred in 2024.

1 b. Standard Operating Procedures were also added to this section of the
2 WMP to describe the operational philosophy of adjusting work
3 practices in changing conditions to reduce the potential of an ignition.
4 There are no significant costs are associated with this activity.
5

6 **3. System Preparedness**

7 a. No new enhanced activities were added to this section. The only
8 changes were within the detailed scope of certain enhanced activities.

9 These include:

10 i. Distribution Ground Assessments were originally scoped in the
11 EWMP as 100% of the distribution system would be annually
12 assessed. This scope is further refined in the WMP as 50% of
13 the distribution system would be patrolled per the established
14 practice to capture and prioritize exceptions that could impact
15 public safety, reliability, and wildfire mitigation. The remaining
16 50% will be assessed through a wildfire mitigation lens focused
17 on specific components and conditions. The net of these two
18 efforts is still 100% of the distribution system annually.

19 ii. Aerial and Ground Exception Repairs were described in the
20 EWMP to be completed within the calendar year once the
21 exception was captured through the assessment or patrol. This
22 has been modified to be repaired within 12 months from
23 discovery of the exception where plausible to allow for data

1 processing, work planning, and potential line clearance
2 constraints.

3 iii. Substation Equipment Upgrades have been expanded to
4 potentially include downstream line equipment in the future to
5 maximize risk mitigation through technology on the electric
6 distribution systems.

7 iv. The Wildfire Mitigation Hardening Program was originally called
8 Section Reliability in the EWMP and was to be focused on
9 electric transmission. In 2023, the static risk model on
10 NorthWestern's infrastructure was completed. The model drove
11 a scope change to this strategy to include both distribution and
12 transmission as a targeted infrastructure hardening program
13 that is an enhanced version of the established Forest
14 Management program. The enhancement would be to include
15 infrastructure inside and outside of forested areas that are
16 targeted and prioritized based on static model outputs.

17

18 **4. Vegetation Management**

19 a. No significant changes to these activities.

20

21 **5. Communication and Outreach**

22 a. No significant changes to these activities.

1 b. The establishment of a PSPS plan included the development of a
2 PSPS Stakeholder Readiness plan to describe efforts around external
3 stakeholder engagement with the PSPS.

4
5 **Q. What is the reason for this difference between the two plans?**

6 **A.** NorthWestern developed the EWMP in 2022. Since then, both NorthWestern
7 and the utility industry at large have made considerable headway in refining
8 best practices for mitigating wildfires, with particular emphasis on the various
9 components within a comprehensive wildfire mitigation plan. This has
10 established a heightened standard of expectations among external
11 stakeholders. In response to this and the advancements achieved by
12 NorthWestern in 2023 in this area, NorthWestern developed the WMP in
13 2024.

14
15 The objectives of the 2024 WMP are:

- 16 1. Provide a more comprehensive view on NorthWestern wildfire mitigation
17 efforts while still maintaining the enhanced components for MPSC tracking
18 to meet all external stakeholder expectations. The WMP describes the
19 established activities, enhanced activities, and operational and
20 communication philosophies.
- 21 2. Align to Edison Electric Institute (EEI) and utility industry standard of care
22 for wildfire mitigation.

- 1 3. Update and expand in the areas where NorthWestern has made
2 significant progress over the past year, specifically:
- 3 a. Expanded discussion on risk modeling;
 - 4 b. Updates on 2023 activities;
 - 5 c. Inclusion of both established and enhanced activities;
 - 6 d. Developments within Operational Practices- System Operational
7 Defense Strategies and Work Practices; and
 - 8 e. PSPS Implementation Plan.

9

10 It is expected that the wildfire mitigation space will continue to evolve within
11 the utility industry and NorthWestern will adjust the WMP accordingly. Given
12 this, the WMP will be updated and revised on a regular basis. The Direct
13 Testimony of Jason C. Merkel discusses how NorthWestern will update the
14 Commission on any updates and/or revisions to the WMP.

15

16

Wildfire Mitigation Plan Costs

17

Q. What are the costs associated with the WMP?

18

A. Estimates of the total five-year costs for each of the categories are
19 summarized in the table below and broken into established and enhanced
20 activities. The estimated costs for the enhanced activities were developed in
21 the EWMP. Previous year actual and future forecast costing is updated on an
22 annual basis for enhanced activities. Several of the established efforts are
23 covered under normal operational budgets and are not reflected below. The

1 details can be found in Exhibit BLH-1, Appendix D for enhanced and
 2 Appendix E for established.

3

4 Five years is the expected timeline for completion of the majority of the WMP
 5 activities; however, some activities will have on-going costs into perpetuity. As
 6 the WMP is implemented each year, NorthWestern will continually re-evaluate
 7 and revise these activities to understand their impact and effectiveness.

Plan Category	Summary	Ignition Reduction	System & Environmental Monitoring	Enhanced Vegetation Maintenance	Public Communication	% Category Improvement vs. Historical	5 Year Estimated Established Cost	5 Year Estimated Enhanced Cost
Situational Awareness	Real time monitoring of high risk areas to adjust operational practices.	✓	✓		✓	97%	-	\$8.8M
Operational Practices	Monitoring of system operations and deployed strategies around how the system operates in high fire risk conditions.	✓	✓		✓	53%	-	\$1.9M
System Preparedness	Hardening of T&D systems through increased assessments and capital improvements. Deploy technology to manage operational risks.	✓	✓	✓		44%	\$175.6M	\$227.6M
Vegetation Management	Enhanced proactive vegetation management reducing vegetation ignition potential.	✓		✓		65%	\$49.7M	\$47.7M
Communication & Outreach	Improve customer communication and collaboration with external stakeholders.				✓	100%	-	\$2.1M

8

9 **Conclusion**

9

10 **Q. Please summarize your testimony.**

11 **A.** NorthWestern’s WMP is a comprehensive document to describe both
 12 established and enhanced wildfire mitigation activities, as well as operational
 13 and communication philosophies such as PSPS. The purpose of the WMP is
 14 to explain the potential wildfire risks that NorthWestern is facing in Montana
 15 and to lay out our comprehensive plan to address these risks, which includes

1 the enhanced activities from the EWMP in addition to a more detailed
2 discussion on historically-established activities.

3

4 There has not been significant changes to the enhanced activities listed in the
5 EWMP. As NorthWestern learns more, we will continue to adjust scope of
6 those activities to ensure the strategies are a cost-effective solution to wildfire
7 mitigation.

8

9 **Q. Does this conclude your direct testimony?**

10 **A.** Yes, it does.

11

12

Verification

This Direct Testimony of Brandi L. Hellwinkel is true and accurate to the best of my knowledge, information, and belief.

/s/Brandi L. Hellwinkel
Brandi L. Hellwinkel