

1 **Montague Wind Power Facility:**
2 **Amended Habitat Mitigation Plan**
3 [Amended July 2024]
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5

6 **I. Introduction**

7 This plan describes methods and standards for preservation and enhancement of an area
8 of land near the Montague Wind Power Facility (MWPF) to mitigate for the impacts of the
9 facility on wildlife habitat.¹ This plan addresses mitigation for both the permanent impacts of
10 facility components and the temporal impacts associated with facility construction. The
11 certificate holder shall protect and enhance the mitigation area as described in this plan. This
12 plan specifies habitat enhancement actions and monitoring procedures to evaluate the success of
13 those actions. Remedial action may be necessary if progress toward habitat enhancement success
14 is not demonstrated in the mitigation area.
15

16 This plan was approved in September 2010 as part of the Energy Facility Siting Council’s
17 (EFSC) Final Order on the Application for Site Certificate for the Montague Wind Power Facility
18 (Final Order on ASC). Final Order on ASC approved construction and operation of a 404
19 megawatt (MW) wind energy generation facility, to be developed in phases (Phase 1 and Phase 2).
20 The plan was finalized in August 2017, prior to construction of Phase 1. In September, 2020, the
21 Council approved Final Order on Request for Amendment 5 of the Montague Wind Power Facility
22 site certificate (Final Order on RFA5), authorizing amendment of the Montague Wind Power
23 Facility site certificate to cover only Phase 1 facility components; and, previously approved facility
24 components (Phase 2) to be allocated under original site certificates for facilities named Montague
25 Solar Facility and Oregon Trail Solar Facility.
26

27 This plan is based on the plan finalized prior to Phase 1 facility construction (August 2017),
28 revised accordingly to describe and apply to the facility components allocated in the Montague
29 Wind Power Facility, as approved in Final Order on RFA5. The Montague Wind Power Facility is
30 a 201 MW wind energy facility, including 56 wind turbines, located in northeastern Gilliam
31 County. The Montague Wind Power Facility resulted in permanent impacts to Category 2, 3 and 4
32 habitat. Mitigation requirements are described in the following sections.
33

34 **II. Description of the Impacts Addressed by the Plan**

35 The land area that will be occupied by permanent facility components
36 (the “footprint”) is approximately 79 acres, based on the final design configuration
37 of the MWPF. In addition to the footprint impacts, construction of the
38 facility could disturb approximately 658 acres. Although much of the area is cropland,
39 habitat that will be affected by construction disturbance includes areas of perennial
40 bunchgrass, and desirable shrubs. After disturbance, the recovery of perennial
41 bunchgrass species to a mature stage might take five to seven years; recovery of
42 desirable shrubs such as bitterbrush and sagebrush might take ten to 30 years to reach maximum
43 height and vertical branching. Even where recovery of these habitat subtypes is successful, there
44 is a loss of habitat quality during the period of time needed to achieve recovery (temporal
45 impact).
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47

1 **III. Calculation of the Size of the Mitigation Area**

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3 | Before beginning construction of the facility, the certificate holder shall provide to the
4 Oregon Department of Energy (Department) a map showing the final design configuration of the
5 facility and a table showing the estimated areas of permanent impacts and construction area
6 impacts on habitat (by category, habitat types and habitat subtypes). The certificate holder shall
7 calculate the size of the mitigation area, as illustrated below, based on the final design
8 configuration of the facility. The certificate holder shall implement the habitat enhancement
9 actions described in this plan, after the Department has approved the size of the mitigation area.
10 This plan does not address additional mitigation that is required under the Montague Wind Power
11 Facility Wildlife Monitoring and Mitigation Plan.

12 The mitigation area must be large enough to meet the habitat mitigation goals and
13 standards of the Oregon Department of Fish and Wildlife (ODFW) described in OAR 635-415-
14

15 ¹ This plan is incorporated by reference in the site certificate for the Montague Wind Power Facility and must be
16 understood in that context. It is not a “stand-alone” document. This plan does not contain all mitigation required of
17 the certificate holder.

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0025. The ODFW goals require mitigation to achieve “no net loss” of habitat in Categories 2, 3 and 4 and a “net benefit” in habitat quantity or quality for impacts to habitat in Categories 2 and 5. The MWPF would not have any impacts on Category 1 or Category 5 habitats.

For the footprint impacts, the mitigation area includes two acres for every one acre of Category 2 habitat affected (a 2:1 ratio) and one acre for every acre of footprint impacts to Category 3 and 4 habitat (a 1:1 ratio). The 2:1 ratio for Category 2 is intended to meet the ODFW goals of “no net loss” and “net benefit” of habitat quantity for impacts to Category 2 habitat. The 1:1 ratio for the footprint impacts to Category 3 and 4 habitat is intended to meet the ODFW goal of “no net loss” of habitat in these categories.

To mitigate for construction impacts outside the footprint, the mitigation area includes ½ acre for every acre of Category 2 or Category 3 SSA (sagebrush shrub- steppe habitat affected (a 0.5:1 ratio). This portion of the mitigation area is intended to address the temporal loss of habitat quality during the recovery of SSA habitat disturbed during construction. The size of this portion of the mitigation area assumes that restoration of disturbed SSA-habitat is successful, as determined under the Montague Wind Power Facility Revegetation Plan. If the revegetation success criteria are not met in the affected areas, then the Council may require the certificate holder to provide additional mitigation.

Areas of potential impact within each affected habitat category and the corresponding mitigation area for each category are calculated as follows, based on maximum habitat impact estimates:²

Category 2

Footprint impacts: 3.77 acres

Temporary impacts to SSA: 1.43 acres

Mitigation area requirement: $(3.77 \text{ acres} \times 2) + (1.43 \text{ acres} \times 0.5) = 8.26 \text{ acres}$

Category 3

Footprint impacts: 5.30 acres

Temporary impacts to SSA: 0.53 acre

Mitigation area requirement: $5.30 \text{ acres} + (0.53 \text{ acre} \times 0.5) = 5.56 \text{ acres}$

Category 4

Footprint impacts: 2.33 acres

Mitigation area requirement: 2.33 acres

Total mitigation area for MWPF (rounded up to nearest whole acre):

16.8 acres

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IV. Description of the Mitigation Area

The certificate holder has selected a mitigation area in proximity to the facility where habitat protection and enhancement are feasible consistent with this plan.³ The applicant has identified a 440-acre parcel in a relatively remote setting where habitat protection and enhancement are feasible.⁴ Conservation easements for other wind energy facilities have been established within the 440-acre parcel, and the applicant has an option for establishing a conservation easement for the MWPF on the remaining acres.⁵ If sufficient land for the MWPF mitigation area is not acquired within the 440-acre parcel, the certificate holder shall select other land that is suitable for meeting the mitigation area requirement consistent with this plan. Before beginning construction of the facility, the certificate holder shall determine the final size of the mitigation area needed for the facility. The certificate holder shall determine the location and boundaries of the mitigation area in consultation with ODFW and the affected landowners and subject to the approval of the Department. The final mitigation area must contain suitable habitat to achieve the ODFW goals of no net loss of habitat in Categories 2, 3 and 4 and a net benefit in habitat quantity or quality for impacts to Category 2 habitat through appropriate enhancement actions. Before beginning construction of the facility, the certificate holder shall acquire the legal right to create, maintain and protect the habitat mitigation area for the life of the facility by means of an outright purchase, conservation easement or similar conveyance and shall provide a copy of the documentation to the Department.⁶

V. Habitat Enhancement Actions

The objectives of habitat enhancement are to protect habitat within the mitigation area from degradation and to improve the habitat quality of the mitigation area. By achieving these goals, the certificate holder can address the permanent and temporal habitat impacts of the MWPF and meet the ODFW goals of no net loss of habitat in Categories 2, 3 and 4 and a net benefit in habitat quantity or quality for impacts to Category 2 habitat. The certificate holder shall initiate the habitat enhancement actions of the facility as soon as the size of the mitigation area has been determined and approved by the Department. The certificate holder shall implement the following enhancement actions:

- 1) Modification of Livestock Grazing Practices. The certificate holder shall restrict grazing within the habitat mitigation area. Eliminating livestock grazing within the mitigation area during most of the year will enable recovery of native bunchgrass and sagebrush in areas where past grazing or recent (2008) wildfires have occurred, resulting in better

³ OAR 635-415-0005 defines “in-proximity habitat mitigation” as follows: “habitat mitigation measures undertaken within or in proximity to areas affected by a development action. For the purposes of this policy, ‘in proximity to’ means within the same home range, or watershed (depending on the species or population being considered) whichever will have the highest likelihood of benefiting fish and wildlife populations directly affected by the development.”

⁴ The 440-acre parcel is described in Section IV.4.(b)(F) of the *Final Order on the Application for the Leaning Juniper II Wind Power Facility*, September 21, 2007, pp. 97-100.

⁵ The 440-acre parcel is shown in Figures P-10 and P-11 of the MWPF site certificate application.

⁶ As used in this plan, “life of the facility” means continuously until the facility site is restored and the site certificate is terminated in accordance with OAR 345-027-0110.

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1 vegetative structure and complexity for a variety of wildlife. Reduced livestock grazing
2 may be used as a vegetation management tool.

3 2) Shrub Planting. If, at any time, monitoring results indicate that the survival and growth of
4 sagebrush recruits are not adequate to mitigate Project related impacts, the Department may
5 require supplemental sagebrush planting as originally stipulated in the HMP. If directed by the
6 Department, The Certificate Holder will plant sage brush seedlings within a 2 acre of Category
7 2 shrub steppe habitat.

8 3) Weed Control. The certificate holder shall implement a weed control program.

9 Under the weed control program, the certificate holder shall monitor the mitigation area
10 to locate weed infestations. The certificate holder shall continue weed control monitoring,
11 as needed, for the life of the facility. As needed, the certificate holder shall use
12 appropriate methods to control weeds. Weed control on the mitigation site will reduce the
13 spread of noxious weeds within the habitat mitigation area and on any nearby grassland,
14 CRP or cultivated agricultural land. Weed control will promote the growth of desirable
15 native vegetation and planted sagebrush. The certificate holder may consider weeds to be

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1 successfully controlled when weed clusters have been eradicated or reduced to a non-
2 competing level. Weeds may be controlled with herbicides or hand-pulling. The
3 certificate holder shall notify the landowner of the specific chemicals to be used on the
4 site and when spraying will occur. To protect locations where young desirable forbs may
5 be growing, spot-spraying may be used instead of total area spraying.

- 6
- 7 4) Fire Control. The Certificate holder shall implement practices to minimize risk of wildfire. The
8 Certificate holder shall coordinate with adjacent landowners to minimize risk of fire.
9 Management Practices include:
- 10 a. If Employees or Contractors are driving to the mitigation site
 - 11 i. Require Employees and Contractors to park away from combustible vegetation
 - 12 ii. All vehicles traveling to the HMA will be equipped with a shovel and fire
13 extinguisher
 - 14 b. Carry a form of communication to report fire should one be observed.
 - 15 c. Prohibit all hot work
 - 16 d. Prohibit smoking
 - 17 e. Prohibit the stockpiling of combustible materials.
 - 18 f. Report hazards such as natural accumulations of combustible materials to the
19 landowner.
- 20 5) The certificate holder shall maintain fire control for the life of the facility. If any part of the
21 mitigation area is damaged by wildfire, the certificate holder shall assess the extent of the
22 damage and implement appropriate actions to restore habitat quality in the damaged area. The
23 Certificate Holder acknowledges that wildfires are natural part of shrub steppe ecology and post-
24 fire restoration actions would focus on reestablishment of native vegetation and control of weeds.
25 Restoration actions would be coordinated with ODOE and described in the Facility’s annual
26 report.
- 27 5) Nest-platforms. The certificate holder shall construct at least one artificial raptor
28 nest platform in the mitigation area tailored to the opportunities of the site, using best
29 professional judgment of raptor use in the general area. The certificate holder may
30 construct more than one nest platform based on the availability of suitable locations. The
31 certificate holder shall maintain the nest platforms for the life of the facility. A description of the
32 platforms is provided in Appendix A.
- 33 6) Habitat Protection. The certificate holder shall restrict uses of the mitigation area that are
34 inconsistent with the goals of no net loss of habitat in Categories 2, 3 and 4 and a net benefit in
35 Categories 2 habitat quantity or quality.

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37 **VI. Monitoring**

38 **1. Monitoring Procedures**

39 The certificate holder shall hire a qualified investigator (an independent botanist, wildlife
40 biologist or revegetation specialist) to conduct a comprehensive monitoring program for the
41 mitigation area. The purpose of this monitoring is to evaluate on an ongoing basis the protection
42 of habitat quality, the results of enhancement actions and the use of the area by avian and
43 mammal species, especially during the wildlife breeding season.

44 The investigator shall monitor the habitat mitigation area every other year until the Facility is
45 decommissioned. The investigator shall visit the site as necessary to carry out the following
46 monitoring procedures:

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- 1) Assess vegetation cover (species, structural stage, etc.) and progress toward meeting the success criteria.
- 2) Record environmental factors (such as precipitation at the time of surveys and precipitation levels for the year).
- 3) Record any wildfire that occurs within the mitigation area and any remedial actions taken to restore habitat quality in the damaged area.
- 4) Assess the success of the weed control program and recommend remedial action, if needed.
- 5) Assess the recovery of native bunchgrass and natural recruitment of sagebrush resulting from removal of livestock grazing pressure and recovery post-fire by

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1 comparing the quality of bunchgrass and sagebrush cover at the time of each
2 monitoring visit with the quality observed in previous monitoring visits and as
3 observed when the mitigation area was first established. The investigator shall
4 establish photo plots of naturally recovering sagebrush and native bunchgrass during
5 the first year following the beginning of construction of the MWPF. The investigator
6 shall take comparison photos in the first year and in every other year thereafter until
7 the subject vegetation has achieved mature stature. The investigator shall determine
8 the extent of successful recovery of native bunchgrass based on measurable indicators
9 (such as signs of more abundant seed production) and shall report on the progress of
10 recovery within in the monitoring plots. The investigator shall report on the timing
11 and extent of any livestock grazing that has occurred within the mitigation area since
12 the previous monitoring visit.

- 13 6) Assess the survival rate and growth of sagebrush. The investigator
14 shall select several clusters for photo monitoring and shall take close-up and
15 long-distance digital images of each selected cluster during monitoring visits. The
16 certificate holder shall use the same established photo plots as identified above in 5 to
17 be photo-monitored at the time of monitoring in consultation with the Department and
18 ODFW. The investigator shall take comparison photos in each year of monitoring.

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1 7) During monitoring as described above, the certificate holder or representative will
2 record incidental observations of Federal or Oregon protected wildlife species and include
3 a list and observation details in the monitoring report.

4 The certificate holder shall report the investigator’s findings and recommendations
5 regarding the monitoring of the mitigation area to the Department and to ODFW. In the annual
6 mitigation area report, the certificate holder shall describe all habitat
7 mitigation actions carried out during the reporting year. The mitigation area report may be
8 included as part of the annual report on the MWPF that is required by the site certificate.
9

10 **2. Success Criteria**

11 Mitigation of the permanent and temporal habitat impacts of the facility may be
12 considered successful if the certificate holder protects and enhances sufficient habitat within the
13 mitigation area to meet the ODFW goals of no net loss of habitat in Categories 2, 3 and 4 and a
14 net benefit in habitat quantity or quality for impacts to Categories 2 habitat. The certificate
15 holder must protect the quantity and quality of habitat within the mitigation area for the life of
16 the facility. ODFW has advised the Department that protection of habitat alone (without
17 enhancement activity) will not meet the intent of the “net benefit” goal.

18 The certificate holder must protect a sufficient quantity of habitat in each category to
19 meet the mitigation area requirements calculated under Section III based on the final design
20 configuration for the facility. The certificate holder shall determine the actual
21 mitigation area requirements for the facility, subject to Department approval, before
22 beginning construction of the facility. If the land selected for the mitigation area does
23 not already contain sufficient habitat in each category to meet these requirements, then the
24 certificate holder must demonstrate improvement of habitat quality sufficient to change lower-
25 value habitat to a higher value (for example, to convert Category 3 habitat to Category 2). The
26 certificate holder may demonstrate improvement of habitat quality based on evidence of
27 indicators such as increased avian use by a diversity of species, survival of planted shrubs,
28 more abundant seed production of desirable native bunchgrass, natural recruitment
29 of sagebrush, and successful weed control. If the certificate holder cannot demonstrate that the
30 habitat mitigation area is trending toward the habitat quality goals described above within four
31 years of monitoring, the certificate holder shall propose remedial action. The
32 Department may require supplemental planting or other corrective measures.

33 After the certificate holder has demonstrated that the habitat quantity goals have been
34 achieved, the investigator shall verify, during subsequent monitoring visits, that the mitigation

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1 area continues to meet the ODFW “no net loss” and “net benefit” goals described above. The
2 investigator shall recommend remedial action if the habitat quality within the mitigation area
3 falls below the habitat quantity goals listed above. The Department may require supplemental
4 planting, other corrective measures and additional monitoring as necessary to ensure that the
5 habitat quantity goals are achieved and maintained.
6

7 **VII. Amendment of the Plan**

8 This *Habitat Mitigation Plan* may be amended from time to time by agreement of the
9 certificate holder and the Oregon Energy Facility Siting Council (“Council”). Such amendments
10 may be made without amendment of the site certificate. The Council authorizes the Department
11 to agree to amendments to this plan. The Department shall notify the Council of all amendments,
12 and the Council retains the authority to approve, reject or modify any amendment of this plan
13 agreed to by the Department.
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Appendix A. Nest Platform Design Criteria.

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Montague Wind HMP Nest Platform Design Criteria

- 1 Time of Year: Nest Platform to be installed between October and March to limit fire hazard.
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- 3 1 Site selection: Platform will be located on an elevated site with an adjacent side slope and in low
- 4 2 vegetation (grass, low shrub) for clear view of area surrounding platform. Likewise, platform will
- 5 3 be sited away from potential disturbance (property lines and agricultural activities)
- 6 4 Use of a 4x6 post or larger for primary support
- 7 5 Post will be placed at least 3 feet in the ground without cement.
- 8 6 Post will support the nest platform height at approximately 9 feet above ground level.
- 9 7 Nest platform will follow the design suggested by ODOE from BLM Technical Note 434 shown
- 10 8 in Figure 1. Deviations from this design may be required on site or based on material availability.
- 11 9 Once installed the post will be cross-braced with three to four cross braces for lateral support.
- 12 10 If suitable material is available, a collar will be placed around the post to prevent predators from
- 13 11 ascending the post.
- 14 12 The final assembly will be photographed and documentation will be included in the subsequent
- 15 13 annual report.
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- 17 15
- 18 16

Figure 1. Nest platform design from BLM Technical note 434

