

**BEFORE THE
ENERGY FACILITY SITING COUNCIL
OF THE STATE OF OREGON**

In the Matter of the Request for Amendment No. 3
of the Site Certificate for the Golden Hills Wind
Project

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**REVISED PROPOSED ORDER ON
AMENDMENT NO. 3 OF THE SITE
CERTIFICATE**

DECEMBER 2, 2016

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1 **I. INTRODUCTION**

2 The Oregon Department of Energy (Department) issues this revised proposed order in
3 accordance with Oregon Revised Statute (ORS) 469.405 and Oregon Administrative Rule (OAR)
4 345-027-0070 for the request by Golden Hills Wind Farm LLC (Golden Hills or certificate holder),
5 which is owned by the Orion Renewable Energy Group LLC (Orion), for Amendment 3 of the
6 Golden Hills Wind Project Site Certificate.

7 The proposed amendment includes the following components:

- 8 1) Extend the construction start and completion deadlines by two years;
- 9 2) Change the allowed wind turbine type to be taller and with a larger rotor diameter, and
10 reduce the maximum number of turbines from 267 to 125;
- 11 3) Modify the related and supporting facilities to eliminate one of two previously approved
12 substations and the 11-mile, 500 kV transmission interconnection line; relocate the
13 single remaining substation to a central location within the site boundary and expand
14 the substation area from 2 to 5 acres; modify the alignment of the previously approved
15 230 kV transmission line to run from the single substation to a Bonneville Power
16 Administration (BPA) grid connection point; increase the height of six meteorological
17 towers from 279 to 312 feet; and expand the width of temporary access roads from 36
18 to 40 feet;
- 19 4) Amend the site boundary to remove approximately 2,800 acres of land no longer
20 needed for the facility; and,
- 21 5) Expand the site boundary by approximately 122.5 acres to allow for construction of two
22 short segments of 230 kV transmission line.

23 The Energy Facility Siting Council (EFSC or the Council) issued the original site certificate for the
24 Golden Hills Wind Project (facility) in June 2009. The Council approved two previous
25 amendments to the site certificate, most recently in January 2015.

26 Based upon review of Request for Amendment (RFA) No. 3, and the comments and
27 recommendations received by state agencies, local government, and tribal organizations, the
28 Department recommends that EFSC approve the request and grant an amendment to the site
29 certificate for the Golden Hills Wind Project, subject to the existing site certificate conditions
30 and amended conditions as recommended in this revised proposed order.¹ The proposed
31 amended site certificate is included as Attachment A to this revised proposed order.

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¹ Reference to the Department's review of RFA No. 3 includes review of information submitted as a supplement to RFA No. 3 on March 18, October 28, and November 18, 2016.

1 **I.A Name and Address of Certificate Holder**

2 Golden Hills Wind Farm LLC
3 Reid Buckley, Vice President
4 Orion Renewable Energy Group LLC
5 155 Grand Avenue, Suite 706
6 Oakland, CA 94612

7 Individuals Responsible for Submitting the Request:

8 Carrie Konkol
9 CH2M HILL Engineers, Inc.
10 2020 SW 4th Avenue
11 Portland, Oregon 97201

12 Orion Renewable Energy Contact Person:

13 Ryan McGraw
14 Head of Asset Management
15 Orion Renewable Energy Group, LLC
16 155 Grand Avenue, Suite 706
17 Oakland, CA 94612

18 **I.B Description of the Approved Facility**

19 The Oregon Energy Facility Siting Council (Council) issued the site certificate for the Golden Hills
20 Wind Project (facility) on June 18, 2009, authorizing a wind-energy generation facility with
21 electrical capacity of up to 400 megawatts (MW). The original site certificate authorized
22 construction and operation of the wind-energy generation facility and related and supporting
23 facilities including: a power collection system, two substations, a 230 kV transmission line, a
24 500 kV transmission line, meteorological towers, supervisory control and data acquisition
25 system, operations and maintenance facility, access roads, and temporary laydown areas.

26 The Council approved an amendment to the site certificate in May 2012 and a second
27 amendment to the site certificate in January 2015. As approved and amended, the facility
28 would consist of up to 267 wind turbines as well as related and supporting facilities located
29 within permitted survey corridors on privately owned land both east and west of Highway 97,
30 between the cities of Wasco and Moro in Sherman County, Oregon. The requested
31 amendments, as described below and in the RFA and associated supplemental material, would
32 reduce the maximum number of turbines from 267 to 125, but would still produce the same
33 peak generating capacity of 400 MW.² At the time of issuance of the revised proposed order
34 (December 2016) for RFA No. 3, facility construction had not yet commenced.

35 **I.C Golden Hills Site Certificate History**

36 The Council issued the Final Order on the Application for Site Certificate for the Golden Hills
37 Wind Project on May 15, 2009. The site certificate became effective upon execution on June 18,

² RFA No. 3, Section 1.2 and 1.3, and Supplemental Information Report, pages 1-3.

1 2009. In December 2011 the certificate holder submitted RFA No. 1 to the site certificate,
2 requesting to extend the construction beginning and completion deadlines by two years. The
3 Council issued the final order and amended site certificate in May 2012, approving the
4 amendment request. That amendment extended the beginning construction date to June 18,
5 2014 and the construction completion date to June 18, 2016.

6 In June 2014, Golden Hills submitted RFA No. 2 to the site certificate, again requesting an
7 extension of the construction deadlines and also requesting a transfer of ownership to Orion
8 Renewable Energy Group LLC from the previous owner. Council issued a final order approving
9 both requests in January 2015 and executed an amended site certificate in February 2015.

10 **II. AMENDMENT DESCRIPTION**

11 **II.A Description of the Proposed Amendment**

12 As noted, Golden Hills requests an amendment to the site certificate to account for facility
13 design changes, and also requests to extend the deadlines for beginning and completing
14 construction by two years. If the amendment is approved, the deadline for beginning
15 construction would be extended from June 18, 2016 to June 18, 2018; and the deadline for
16 completing construction would be extended from June 18, 2019 to June 18, 2021. Golden Hills
17 submitted the RFA on December 17, 2015, which satisfies the requirement in OAR 345-027-0030
18 to submit the construction extension request at least six months before the construction
19 commencement deadline.

20 As described by the certificate holder, in addition to the construction deadline extension
21 request, Golden Hills proposes to amend its site certificate to account for facility design
22 changes.³ Specifically, design changes include:

- 23 • Reduce the maximum number of turbines to 125, from the previously approved 267
- 24 • Change the dimensions of the turbine type:
 - 25 – Increase maximum allowed turbine tower height to 312 feet (95 meters), from the
 - 26 – previously approved 263 feet (80 meters)
 - 27 – Increase the diameter of the maximum allowed rotor-swept area to 413 feet (126
 - 28 – meters), from the previously approved 315 feet (96 meters)
 - 29 – Decrease the minimum allowed ground clearance to 65 feet (19.8 meters), from the
 - 30 – previously approved 105 feet (32 meters)

³ Site certificate condition III.A.1 is a summary of the approved facility design parameters. The Department is recommending the condition be updated to reflect the requested changes to the facility design. Please see Attachment A, the recommended amended site certificate. In addition, the Department is recommending that provision (f) of condition III.A.1 be deleted; currently, provision (f) states that the certificate holder must request a site certificate amendment to change various facility design parameters; in fact, site certificate amendments are governed by EFSC rule at OAR 345-027-0050.

- 1 – Increase the maximum allowed total turbine height, including rotor blades, to 518
2 feet (158 meters), from the previously approved 420 feet (128 meters).
- 3 • Eliminate the previously approved 11-mile, 500 kV transmission line
- 4 • Eliminate one of the two previously approved substations, relocate the second
5 substation to a more central location within the site boundary, and expand the
6 substation area from 2 to 5 acres
- 7 • Increase the height of six meteorological towers from 279 feet (85 meters) to 312 feet
8 (95 meters)
- 9 • Expand the width of temporary access roads from 36 to 40 feet;⁴ and,
- 10 • Modify the route of the previously approved 230 kV transmission line to deliver
11 electricity from the facility’s single substation to the BPA grid. The modified design
12 would also involve locating conductors on an existing 230 kV transmission line that
13 currently connects another independent wind facility (Hay Canyon Wind Project) to the
14 BPA grid. In total, the certificate holder states that it will need to construct 5 miles of
15 new 230 kV transmission line to move electricity to the BPA grid.

16 Finally, RFA No. 3 requests to change the site boundary. The requested change would remove
17 approximately 2,800 acres from the site boundary that is no longer necessary for the facility.
18 Most of this land is located in the north/northwest portion of the existing site boundary,
19 generally north of Highway 97. This area does not contain any turbine micro-siting corridors,
20 rather, the previously approved 500 kV transmission line would have been located in this
21 portion of the site boundary. A smaller portion of land to be removed as part of this
22 amendment request is located in the southeast corner of the site boundary.

23 The amendment request also seeks to add approximately 122.5 acres to the site boundary.⁵
24 This land is in two areas. One area is 82.5 acres adjacent to the eastern portion of the site
25 boundary that is necessary to connect the facility’s 230 kV transmission line to the existing Hay
26 Canyon 230 kV transmission line. This portion of land is a triangle-shaped area northeast of
27 Highway 206. As stated by the certificate holder, this area was surveyed for biological and
28 cultural resources as part of the original 2007 application for site certificate, but was not
29 included in the site boundary at that time because the certificate holder did not have site
30 control of the land.⁶ The second portion of land to be added to the site boundary is 40 acres,

⁴ The proposed width expansion of temporary access roads is needed to accommodate larger vehicles for delivery of the larger turbines proposed in this amendment request. Supplemental Information Report, page 3.

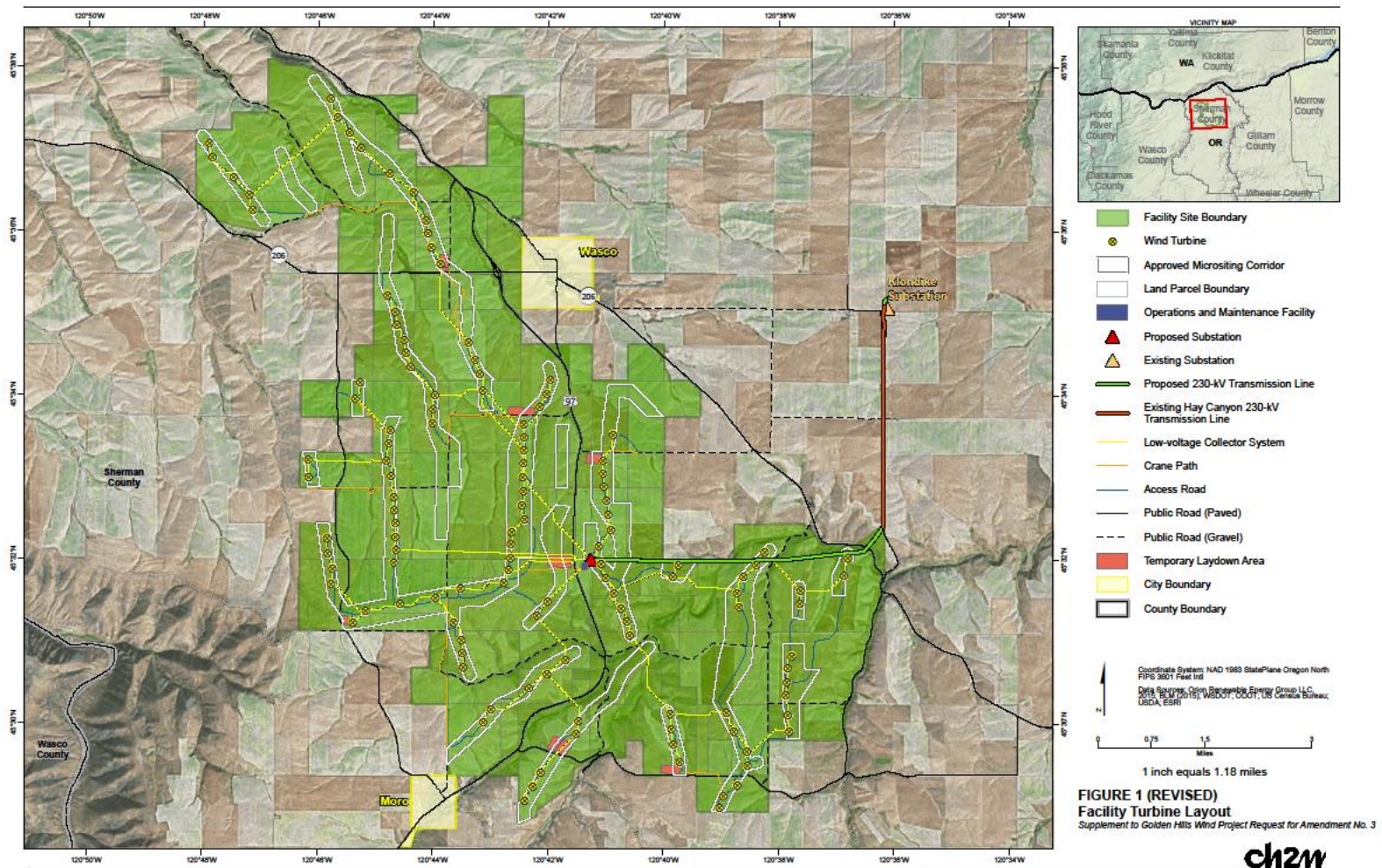
⁵ Initially, the RFA submitted in December 2015 requested to add approximately 200 acres of land to the site boundary, including the two areas as described above, but also a third area in the northwestern portion of the project area, northeast of Highway 206. This area was approximately 80 acres, and as described by Golden Hills, would have been used as a temporary construction laydown area. However, in supplemental material submitted in March 2016, Golden Hills decided that this area was no longer necessary, and is not seeking to add this land to the site boundary. Figure 2 of the supplemental information report shows these areas on a map, including the current site boundary, the area being removed from the site boundary, area being added, and the area requested to be added in December 2015 but no longer necessary or requested.

⁶ Supplemental Information Report, page 2.

1 discontinuous from the remainder of the site boundary. This area would be used to construct
2 approximately 700 feet of new 230 kV transmission line to interconnect the facility to a BPA
3 transmission structure. The RFA does not include a request to change the locations of turbine
4 micrositing corridors. All turbines would be located within the same previously approved
5 micrositing corridors.⁷ A map showing the facility site boundary, as amended, is included as
6 Figure 1. A map showing the proposed site boundary changes, including the area to be removed
7 from the previously approved site boundary and the area requested to be added to the site
8 boundary, is included as Figure 2.
9

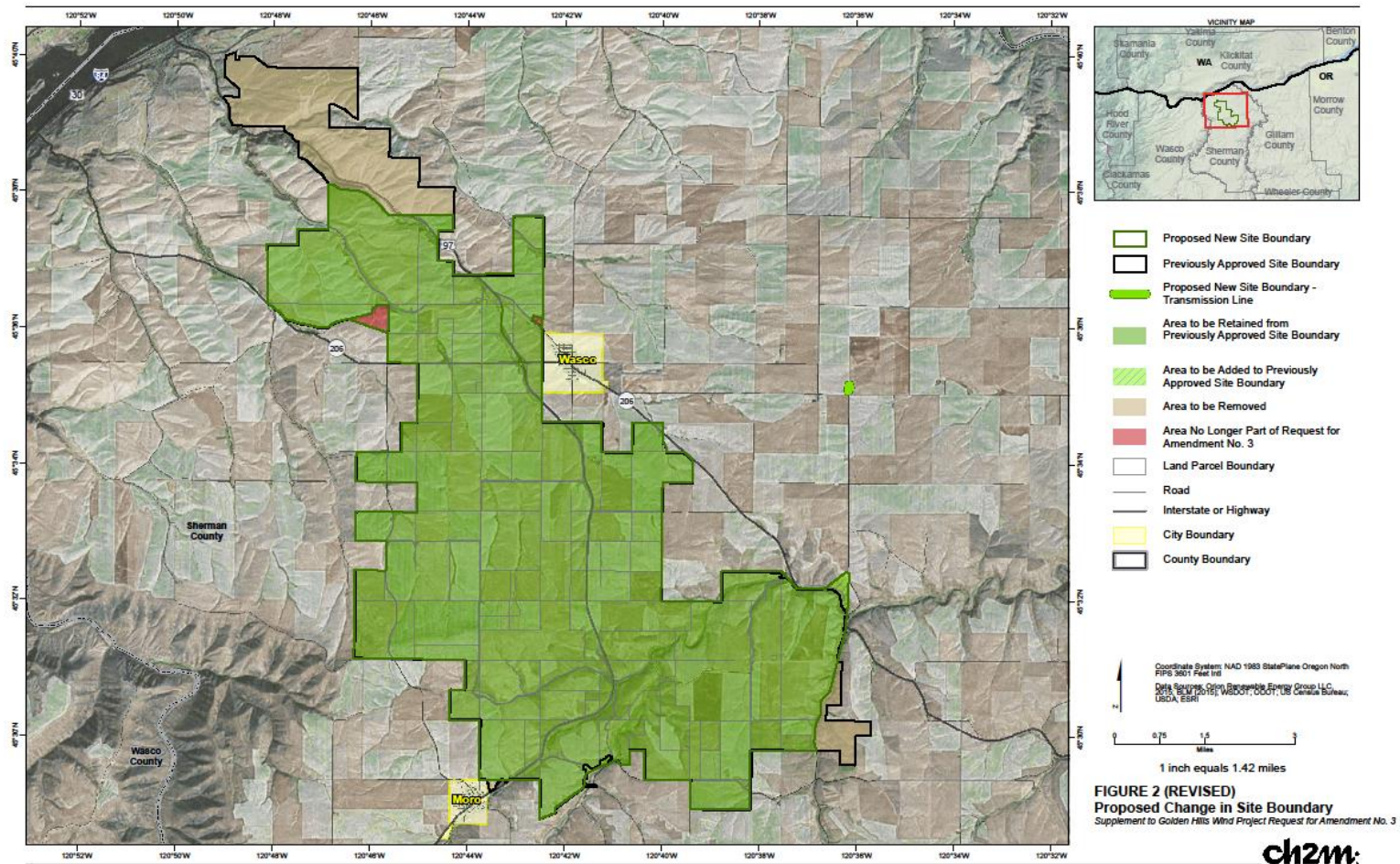
⁷ RFA, Section 1.2 and 1.3, RFA Supplemental Information Report, pages 1-3.

1 Figure 1 – Golden Hills Site Boundary, As Amended, and Turbine Micrositing Corridors



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 3

1 Figure 2 – Requested Amendments to Golden Hills Site Boundary



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1 **III. AMENDMENT PROCESS**

2 **III.A Division 27 Rules**

3 The Council has adopted administrative rules to determine when a site certificate amendment
4 is necessary (OAR 345-027-0030 and -0050) and rules establishing the procedure for amending
5 a site certificate (OAR 345-027-0060, -0070, and -0100). The Council’s amendment rules, OAR
6 Chapter 345, Division 27, apply to this RFA.

7 An amendment can be requested by a certificate holder under OAR 345-027-0030 to extend the
8 construction beginning and completion deadlines of a facility that the Council has previously
9 granted a site certificate. In accordance with OAR 345-027-0030(1) and as noted above, Golden
10 Hills requested an amendment six months before the construction start deadline.

11 Under OAR 345-027-0050(1), a certificate holder must submit a request to amend the site
12 certificate to design, construct, or operate a facility in a manner different from the description
13 in the site certificate if the proposed change could:

14 *(a) Result in a significant adverse impact that the Council has not addressed in an earlier*
15 *order and the impact affects a resource protected by Council standards;*

16 *(b) Impair the certificate holder’s ability to comply with a site certificate condition; or*

17 *(c) Require a new condition or a change to a condition in the site certificate.*

18 ***

19 An amendment to the Golden Hills Wind Project site certificate is necessary under OAR 345-
20 027-0050(1)(c) because Golden Hills proposes to “operate [the] facility in a manner different
21 from the description in the site certificate,” and the proposed amendment requires “a new
22 condition or change to a condition in the site certificate.” Golden Hills requests to change the
23 type of wind turbine allowed at the facility, as well as changes to related and supporting
24 facilities and the site boundary as described above. In order to accommodate the requested
25 change, changes to existing conditions and imposition of new conditions are recommended by
26 the Department, as described below in this revised proposed order. Therefore, an amendment
27 is required under OAR 345-027-0050(1)(c).

28 **OAR 345-027-0070 Review of a Request for Amendment**

29 ***

30 *(10) In making a decision to grant or deny issuance of an amended site certificate, the*
31 *Council shall apply the applicable substantive criteria, as described in OAR 345-022-0030, in*
32 *effect on the date the certificate holder submitted the request for amendment and all other*
33 *state statutes, administrative rules, and local government ordinances in effect on the date*
34 *the Council makes its decision. The Council shall consider the following:*

35 *(a) For an amendment that would change the site boundary or the legal description of the*
36 *site, the Council shall consider, for the area added to the site by the amendment,*
37 *whether the facility complies with all Council standards;*

1 (b) For an amendment that extends the deadlines for beginning or completing construction,
2 the Council shall consider:

- 3 A. Whether the Council has previously granted an extension of the deadline;
- 4 B. Whether there has been any change of circumstances that affects a previous Council
5 finding that was required for issuance of a site certificate or amended site certificate;
6 and
- 7 C. Whether the facility complies with all Council standards, except that the Council may
8 choose not to apply a standard if the Council finds that:
- 9 i. The certificate holder has spent more than 50 percent of the budgeted costs on
10 construction of the facility;
- 11 ii. The inability of the certificate holder to complete the construction of the facility
12 by the deadline in effect before the amendment is the result of unforeseen
13 circumstances that are outside the control of the certificate holder;
- 14 iii. The standard, if applied, would result in an unreasonable financial burden on the
15 certificate holder; and
- 16 iv. The Council does not need to apply the standard to avoid a significant threat to
17 the public health, safety or the environment;

18 (c) For any amendment not described above, the Council shall consider whether the
19 amendment would affect any finding made by the Council in an earlier order.

20 (d) For all amendments, the Council shall consider whether the amount of the bond or letter
21 of credit required under OAR 345-022-0050 is adequate.

22 RFA No. 3 would change the site boundary and extend the construction deadlines, and as such
23 subsections (a) and (b) both apply. Subsection (c) also applies, as a component of RFA No. 3
24 would be to change the allowed wind turbine type, as well as other changes to related and
25 supporting facilities as described above and in the RFA.⁸ Subsection (d) related to financial
26 assurances is addressed in section IV.A.7 of this revised proposed order.

27 The applicable EFSC standards are established in OAR Chapter 345 divisions 22, 23 and 24, as
28 further described in the revised proposed order. The Council must apply these standards to this
29 amendment request. The Council must also find compliance with the applicable permitting
30 requirements of other state agencies, other than permits delegated to another agency by the
31 federal government.

32 **III.B Procedural History**

33 Golden Hills submitted RFA No. 3 on December 17, 2015. Golden Hills satisfied the requirement
34 of OAR 345-027-0030 to submit a request for extension of construction deadlines at least six
35 months prior to the construction deadline, which was on June 18, 2016. The Department then
36 distributed a notice of the receipt of RFA to reviewing agencies, Tribal Governments, the Special

⁸ Id.

1 Advisory Group (Sherman County Board of Commissioners), the EFSC general mailing list, the
2 special list maintained for the facility, and the adjacent property owners as listed by Golden
3 Hills in the amendment request.⁹ The amendment request was also posted to the ODOE
4 website. The Department requested receipt of comments from all interested parties by
5 March 4, 2016. Public and agency comments are, as applicable to Council standards, discussed
6 in the appropriate Council standard sections in Section IV of this revised proposed order. On
7 March 18, 2016, the certificate holder submitted a supplemental information report to ODOE
8 providing additional information regarding the amendment request. The supplement also
9 included information in response to ODOE and reviewing agency questions. On May 13, 2016,
10 ODOE sent the certificate holder an information request, and Golden Hills responded on June 3,
11 2016. Golden Hills also provided a formal response to the Oregon Department of Fish and
12 Wildlife (ODFW) and Oregon Department of Aviation comment letters on June 10, 2016.

13 The Department received comments on RFA No. 3 from the following reviewing agencies:

- 14 • Oregon State Historic Preservation Office
- 15 • Oregon Department of Fish and Wildlife
- 16 • Oregon Department of Aviation
- 17 • Oregon Department of State Lands
- 18 • Sherman County (Special Advisory Group)
- 19 • Confederated Tribes of the Umatilla Indian Reservation¹⁰

20 The Department received one public comment on RFA No. 3, from Ms. Irene Gilbert/Friends of
21 the Grande Ronde Valley (FGRV). Attachment B of this revised proposed order is an index of
22 comments received on the RFA.

23 On September 6, 2016, the Department issued the proposed order, recommending approval of
24 an amended site certificate. The Department issued notice of the proposed order to the
25 persons, agencies, tribes and local governments who received notice of the amendment
26 request. The notice included an October 7, 2016 deadline for submitting, to the Department,
27 written comments and requests for contested case on the proposed order.

28 On October 20, 2016, the certificate holder requested that the Department withdraw the
29 proposed order due to insufficient information on the record related to a land use evaluation
30 required for the 230 kV transmission line under ORS 215.274 and the Council's Land Use
31 standard. The request that the Department withdraw the proposed order relates to a claim in a
32 comment letter and request for contested case that contends that the certificate holder should
33 have evaluated the related or supporting transmission line infrastructure as an associated
34 transmission line under the provisions of ORS 215.274, instead of under ORS 215.275, as was
35 done in the RFA and the proposed order.

⁹ The Council appointed the Sherman County Board of Commissioners as the Special Advisory Group for the Golden Hills Wind Facility Project on August 17, 2007 following receipt of the Application for Site Certificate in July 2007.

¹⁰ The comment letter from the CTUIR stated that the facility is outside its ceded lands and area of interest, and that they defer to the Confederated Tribes of the Warm Springs of Oregon for any concerns or issues with the facility. The Confederated Tribes of the Warm Springs of Oregon did not comment on the RFA.

1 On November 10, 2016, the Department notified the certificate holder that based upon review
2 of the request, the Department agreed that the approach was appropriate and that the
3 proposed order would be withdrawn to allow the certificate holder the opportunity to provide
4 the required land use evaluation for the 230 kV transmission line. First, after reviewing the
5 claim related to the transmission line land use evaluation issue in the comment and contested
6 case request from Irene Gilbert dated October 7, 2016 and the request for withdrawal
7 submitted on behalf of the certificate holder, the Department agrees that it appears that in
8 order to find that the facility, as amended, complies with the Council's Land Use standard at
9 OAR 345-022-0030, the transmission line should have been evaluated for compliance with ORS
10 215.274. Therefore, it did not appear that there was a dispute about an issue of law or fact
11 related to the need for an evaluation under ORS 215.274. Second, the certificate holder did not
12 submit an evaluation of the transmission line under ORS 215.274 prior to the Department's
13 issuance of the proposed order. As a result, not only did the Department not review the
14 relevant evaluation prior to issuing the proposed order, but affected land owners and other
15 members of the public did not have an opportunity to review an evaluation addressing
16 compliance with ORS 215.274 and did not have an opportunity to provide comments on the
17 evaluation during the comment period.

18 In a second supplement to the RFA dated October 28, 2016, the certificate holder submitted an
19 evaluation of the transmission line under ORS 215.274. The Department issued a request for
20 additional information on the second supplement on November 10, 2016 and received
21 responses in a third supplement to the RFA on November 18, 2016. The Department notified
22 individuals that commented on the proposed order on November 10, 2016 of the withdrawal of
23 the proposed order and indicated that a revised proposed order would be issued along with a
24 public notice and opportunity to submit the same or new or modified comments. The
25 Department issued a revised proposed order and public notice on December 2, 2016. All
26 comments on the revised proposed order will be provided to Council for review and
27 consideration in the final order.

28 **IV. AMENDMENT REVIEW AND APPLICABLE STANDARDS**

29 Under ORS 469.405, "a site certificate may be amended with the approval of the Energy Facility
30 Siting Council." The Council has adopted rules for determining when a site certificate
31 amendment is necessary (OAR 345-027-0030 and -0050) and rules setting out the procedure for
32 amending a site certificate (OAR 345-027-0060 and -0070).

33 **OAR 345-027-0070 Review of a Request for Amendment**

34 ***

35 *(10) In making a decision to grant or deny issuance of an amended site certificate, the*
36 *Council shall apply the applicable substantive criteria, as described in OAR 345-022-0030, in*
37 *effect on the date the certificate holder submitted the request for amendment and all other*
38 *state statutes, administrative rules, and local government ordinances in effect on the date*
39 *the Council makes its decision. The Council shall consider the following:*

- 1 (a) *For an amendment that would change the site boundary or the legal description of the*
2 *site, the Council shall consider, for the area added to the site by the amendment,*
3 *whether the facility complies with all Council standards;*
- 4 (b) *For an amendment that extends the deadlines for beginning or completing construction,*
5 *the Council shall consider:*
- 6 A. *Whether the Council has previously granted an extension of the deadline;*
- 7 B. *Whether there has been any change of circumstances that affects a previous Council*
8 *finding that was required for issuance of a site certificate or amended site certificate;*
9 *and*
- 10 C. *Whether the facility complies with all Council standards, except that the Council may*
11 *choose not to apply a standard if the Council finds that:*
- 12 i. *The certificate holder has spent more than 50 percent of the budgeted costs on*
13 *construction of the facility;*
- 14 ii. *The inability of the certificate holder to complete the construction of the facility*
15 *by the deadline in effect before the amendment is the result of unforeseen*
16 *circumstances that are outside the control of the certificate holder;*
- 17 iii. *The standard, if applied, would result in an unreasonable financial burden on the*
18 *certificate holder; and*
- 19 iv. *The Council does not need to apply the standard to avoid a significant threat to*
20 *the public health, safety or the environment;*
- 21 (c) *For any amendment not described above, the Council shall consider whether the*
22 *amendment would affect any finding made by the Council in an earlier order.*
- 23 (d) *For all amendments, the Council shall consider whether the amount of the bond or letter*
24 *of credit required under OAR 345-022-0050 is adequate.*

25 For new areas added to the site boundary, OAR 345-027-0070(10)(a) requires the Council to
26 consider whether the expanded facility complies with all Council standards. OAR 345-027-
27 0070(10)(b)(C) requires that for an amendment that would extend construction deadlines, the
28 Council consider whether the facility continues to comply with all Council standards.
29 Additionally, OAR 345-027-0070(10)(c) requires that for amendments that are not related to
30 construction deadline extensions or expansion of a site boundary, the Council consider whether
31 the amendment would affect any finding made by Council in an earlier order. In this case, RFA
32 No. 3 includes components that must be reviewed under each of these provisions. The
33 Department has assessed the amended facility against all applicable Council standards below.

34 OAR 345-027-0070(10)(b)(A) requires the Council to consider whether it has previously granted
35 an extension of the deadline. The Council previously considered and approved two construction
36 deadline extensions in RFA No. 1 and RFA No. 2. For the first amendment, the construction
37 deadline extension was requested due to a site certificate transfer resulting from a change in
38 the certificate holder and parent company. The certificate holder explained that the first
39 deadline extension was requested to allow the transferee suitable time to comply with

1 preconstruction conditions. For the second amendment, the certificate holder explained that a
2 deadline extension was warranted because the facility was under new ownership. The
3 certificate holder further justified the deadline extension request by explaining that the site is
4 an excellent and well-documented wind resource and holds a Large Generator Interconnection
5 Agreement with BPA.

6 RFA No. 3 constitutes the third construction deadline extension request. The site certificate
7 holder explains why additional time to begin and finish construction is necessary.¹¹ As stated by
8 the certificate holder, the construction deadline extension request is driven by the need to
9 complete the review process with the Federal Aviation Administration and to update final
10 facility design in response to recent changes in the wind energy market using equipment
11 currently available on the market. In RFA No. 3, the certificate holder explains that because the
12 site is a well-documented, strong wind energy resource area, and because a Large Generator
13 Interconnection Agreement with BPA has been signed, an extension of the construction
14 deadlines would further enhance the feasibility of the facility by allowing the certificate holder
15 time to receive approval for use of improved turbine technology.

16 OAR 345-027-0030 addresses “Amendments to Extend Construction Beginning and Completion
17 Deadlines.” Under OAR 345-027-0030, a site certificate holder may request an amendment to
18 extend the deadlines for beginning or completing the construction of a facility. The certificate
19 holder must submit the request “no later than six months before the date of the applicable
20 deadline, or, if the certificate holder demonstrates good cause for the delay in submitting the
21 request, no later than the applicable deadline.” If the Council grants such a request, the Council
22 must specify new deadlines for beginning and/or completing construction that are not more
23 than two years from the current deadlines. In this instance, Golden Hills submitted a request to
24 extend the construction deadline six months before the June 18, 2016 deadline for starting
25 construction, and therefore the demonstration of good cause is not required.

26 OAR 345-027-0070(10)(b)(B) requires that the Council consider “whether there has been any
27 change of circumstances that affects a previous Council finding that was required for issuance
28 of a site certificate or amended site certificate.” The certificate holder describes the requested
29 change in turbine design as a change in circumstance which warrants a site certificate
30 amendment. Additionally, the requested changes to related and supporting facilities and other
31 site design features (e.g., site boundary additions to accommodate new 230 kV transmission
32 segments) warrant consideration in a site certificate amendment request. An amendment
33 request must also consider any changes in the existing environment within the analysis area
34 that may have occurred since the original site certificate approval or previous amendments.
35 Consistent with OAR 345-027-0070(1)(b)(C), the evaluation of these changes in circumstance
36 and whether the facility, as amended, satisfies all Council standards is presented in
37 sections IV.A.-IV.D of the revised proposed order.

38 As noted, OAR 345-027-0070(10)(a), OAR 345-027-0070(10)(b)(C), and OAR 345-027-0070(10)(c)
39 require the Council to consider if the facility, as amended, complies with all applicable Council

¹¹ RFA No. 3, Sections 1.3.1 and 4.2.

1 standards. Compliance with the applicable EFSC standards in OAR Divisions 22, 23 and 24 are
2 evaluated in the following subsections.

3 **IV.A Division 22 Standards**

4 **IV.A.1 General Standard of Review: OAR 345-022-0000**

5 *(1) To issue a site certificate for a proposed facility or to amend a site certificate, the Council*
6 *shall determine that the preponderance of evidence on the record supports the following*
7 *conclusions:*

8 *(a) The facility complies with the requirements of the Oregon Energy Facility Siting*
9 *statutes, ORS 469.300 to ORS 469.570 and 469.590 to 469.619, and the standards*
10 *adopted by the Council pursuant to ORS 469.501 or the overall public benefits of the*
11 *facility outweigh the damage to the resources protected by the standards the facility*
12 *does not meet as described in section (2);*

13 *(b) Except as provided in OAR 345-022-0030 for land use compliance and except for*
14 *those statutes and rules for which the decision on compliance has been delegated by*
15 *the federal government to a state agency other than the Council, the facility*
16 *complies with all other Oregon statutes and administrative rules identified in the*
17 *project order, as amended, as applicable to the issuance of a site certificate for the*
18 *proposed facility. If the Council finds that applicable Oregon statutes and rules, other*
19 *than those involving federally delegated programs, would impose conflicting*
20 *requirements, the Council shall resolve the conflict consistent with the public interest.*
21 *In resolving the conflict, the Council cannot waive any applicable state statute.*

22 ***

23 **Findings of Fact**

24 The requirements of OAR 345-022-0000 are discussed in the sections that follow. The
25 Department consulted with other state agencies and Sherman County during review of RFA
26 No. 3 to aid in the evaluation of whether the facility, as amended, would maintain compliance
27 with statutes, rules and ordinances otherwise administered by other agencies.¹² Additionally, in
28 many circumstances the Department relies upon these reviewing agencies' special expertise in
29 evaluating compliance with the requirements of Council standards. The Department
30 recommends the Council find that with existing, amended, and new site certificate conditions,
31 the facility, as amended, would maintain compliance with all applicable statutes, administrative
32 rules and ordinances under Council jurisdiction.

33 **Certificate Expiration (OAR 345-027-0000)**

34 Under OAR 345-015-0085(9), the site certificate is effective upon execution by the Council Chair
35 and the certificate holder. ORS 469.370(12) requires the Council to "specify in the certificate
36 the date by which construction of the facility must begin." ORS 469.401(2) requires that the site
37 certificate contain a condition "for the time for completion of construction." Under OAR 345-

¹² Sherman County comment letter was submitted by Georgia Macnab, Sherman County Planning Director, on behalf of the Sherman County Commissioners, the Special Advisory Group for the Golden Hills facility.

1 027-0000, the certificate holder must begin construction on the facility no later than the
2 construction beginning date specified by Council in the site certificate, unless an amendment is
3 requested and granted. "Construction" is defined in ORS 469.300(6) to mean "work performed
4 on a site, excluding surveying, exploration or other activities to define or characterize the site,
5 the cost of which exceeds \$250,000." OAR 345-001-0010(12) adopts the statutory definition.

6 As discussed above and as provided in the RFA, the certificate holder requests to extend the
7 construction start date to June 18, 2018, and the construction completion date to June 18,
8 2021. Golden Hills requests this extension in order to update and finalize facility design and
9 engineering and to complete the review process with the Federal Aviation Administration. In
10 particular, Golden Hill states that due to recent advances in wind turbine technology, new
11 turbines are available that would allow the facility to produce the same amount of power (peak
12 maximum capacity of up to 400 MW) using only 125 turbines, as opposed to the previously
13 approved 267 turbines, a reduced site boundary, and eliminating the need for the previously
14 approved 11-mile, 500 kV transmission line, as well as reducing the number of on-site
15 substations from two to one.¹³

16 Again, as discussed above, OAR 345-027-0070(10)(b)(A) requires the Council to consider
17 whether the Council has previously granted an extension of the deadline. The Council has
18 previously considered and approved two construction deadline extensions in RFA No. 1 and RFA
19 No. 2. For the first amendment, a construction deadline extension was requested due to a site
20 certificate transfer resulting from a change in the certificate holder and parent company. The
21 certificate holder explained that the first deadline extension was requested to allow the
22 transferee suitable time to comply with preconstruction conditions. For the second
23 amendment, the certificate holder explained that a deadline extension was warranted because
24 the facility was under new ownership. The certificate holder further justified the deadline
25 extension request by explaining that the site is an excellent and well-documented wind
26 resource and holds a Large Generator Interconnection Agreement with BPA.

27 RFA No. 3 constitutes the third construction deadline extension request. The site certificate
28 holder explains in its RFA why additional time is necessary.¹⁴ As stated by the certificate holder,
29 there have been unforeseen delays in construction, including federal aviation issues. Golden
30 Hills states that it believes these issues will be resolved in the near to medium term.¹⁵
31 Additionally, Golden Hills states that since the site certificate was issued in 2009, considerable
32 advances in wind turbine technology have occurred and new turbines are more efficient and
33 economical, and an extension is necessary to allow the certificate holder time to request
34 approval for use of these new turbines at the facility.

35 OAR 345-027-0070(1)(b)(B) requires that the Council consider "whether there has been any
36 change of circumstances that affects a previous Council finding that was required for issuance
37 of a site certificate or amended site certificate." The certificate holder addresses this point in
38 RFA No. 3, as already noted above, that new wind turbine technology has become available

¹³ RFA, Section 1.3.

¹⁴ RFA, Section 4.2.

¹⁵ Federal aviation issues are outside EFSC jurisdiction. Issues related to air traffic safety and comments from Oregon Department of Aviation are addressed in Section IV.C.1 of this revised proposed order.

1 since the site certificate was granted in 2009, and an amendment is necessary to allow Golden
2 Hills to utilize this technology. Additionally, the requested changes to related and supporting
3 facilities and other site design features (e.g., site boundary additions to accommodate new 230
4 kV transmission segments) warrant consideration in a site certificate amendment request. By
5 using newer and more efficient turbine technology, the certificate holder would be able to
6 construct the facility using considerably fewer turbines (maximum of 125, compared to the
7 previously approved 267), and reduce the overall site boundary, and thus minimize the facility's
8 footprint on the landscape.

9 Accordingly, and in compliance with OAR 345-027-0000 and OAR 345-027-0020(4), the
10 Department recommends that the Council grant the construction deadline extensions and
11 modify the following previously approved site certificate conditions accordingly:

12 **III.D.1:** The certificate holder shall begin construction of the facility ~~within~~ by June 18, ~~2016~~
13 ~~2018~~. Under OAR 345-015-0085(9), an amended site certificate is effective upon execution
14 by the Council Chair and the ~~applicant~~ certificate holder. The Council may grant an
15 extension of the deadline to begin construction in accordance with OAR 345-027-0030 or
16 any successor rule in effect at the time the request for extension is submitted.

17 **III.D.2:** The certificate holder shall complete construction of the facility by June 18, ~~2019~~
18 ~~2021~~. Construction is complete when (1) the facility is substantially complete as defined by
19 the certificate holder's construction contract documents; (2) acceptance testing has been
20 satisfactorily completed; and (3) the energy facility is ready to begin continuous operation
21 consistent with the site certificate. The certificate holder shall promptly notify the
22 Department of the date of completion of construction. The Council may grant an extension
23 of the deadline for completing construction in accordance with OAR 345-027-0030 or any
24 successor rule in effect at the time the request for extension is submitted.

25 **Conclusion of Law**

26 Based on the following analysis of applicable Council standards, and subject to compliance with
27 the existing, amended, and recommended conditions identified in this revised proposed order,
28 the Department recommends the Council find that the Golden Hills Wind Project, as amended,
29 satisfies the requirements of OAR 345-022-0000.

30 **IV.A.2 Organizational Expertise: OAR 345-022-0010**

31 *(1) To issue a site certificate, the Council must find that the applicant has the organizational*
32 *expertise to construct, operate and retire the proposed facility in compliance with*
33 *Council standards and conditions of the site certificate. To conclude that the applicant*
34 *has this expertise, the Council must find that the applicant has demonstrated the ability*
35 *to design, construct and operate the proposed facility in compliance with site certificate*
36 *conditions and in a manner that protects public health and safety and has demonstrated*
37 *the ability to restore the site to a useful, non-hazardous condition. The Council may*
38 *consider the applicant's experience, the applicant's access to technical expertise and the*
39 *applicant's past performance in constructing, operating and retiring other facilities,*
40 *including, but not limited to, the number and severity of regulatory citations issued to*
41 *the applicant.*

1 (2) *The Council may base its findings under section (1) on a rebuttable presumption that an*
2 *applicant has organizational, managerial and technical expertise, if the applicant has an*
3 *ISO 9000 or ISO 14000 certified program and proposes to design, construct and operate*
4 *the facility according to that program.*

5 (3) *If the applicant does not itself obtain a state or local government permit or approval for*
6 *which the Council would ordinarily determine compliance but instead relies on a permit*
7 *or approval issued to a third party, the Council, to issue a site certificate, must find that*
8 *the third party has, or has a reasonable likelihood of obtaining, the necessary permit or*
9 *approval, and that the applicant has, or has a reasonable likelihood of entering into, a*
10 *contractual or other arrangement with the third party for access to the resource or*
11 *service secured by that permit or approval.*

12 (4) *If the applicant relies on a permit or approval issued to a third party and the third party*
13 *does not have the necessary permit or approval at the time the Council issues the site*
14 *certificate, the Council may issue the site certificate subject to the condition that the*
15 *certificate holder shall not commence construction or operation as appropriate until the*
16 *third party has obtained the necessary permit or approval and the applicant has a*
17 *contract or other arrangement for access to the resource or service secured by that*
18 *permit or approval.*

19 **Findings of Fact**

20 As applicable to this amendment request, subsection (1) of the Council’s Organizational
21 Expertise standard requires that the certificate holder demonstrate the ability to design,
22 construct, and operate a facility in a manner that protects public health and safety in
23 compliance with Council standards and all site certificate conditions, as well as to restore the
24 site to a useful, nonhazardous condition. Subsections (2) through (4) address certified programs
25 and third party permits.

26 The Council addressed the Organizational Expertise standard in Section III.A.1 of the *Final Order*
27 *on Amendment No. 2*, and concluded at that time that the facility complied with the
28 Organizational Expertise standard. No circumstances have changed with the current
29 amendment request that would alter the Department’s findings or the recommendations to
30 Council. The certificate holder’s parent company, Orion Renewable Energy Group, LLC (Orion
31 Renewable), remains the same entity that was considered in RFA No. 2. At that time, it was
32 noted that Orion Renewable had considerable experience developing renewable energy
33 projects, with nearly 3,000 MW of energy facilities in operation in the United States, including
34 EFSC-issued site certificates in Sherman County for Biglow Canyon Wind Farm Phase I and II.¹⁶

35 Regarding financial assurances, as described in Section IV.A.7, *Retirement and Financial*
36 *Assurance* of this revised proposed order, the certificate holder provided a letter issued by
37 Beecher and Carlson, a firm that handles Orion Renewable’s surety bonds and commercial
38 insurance, stating that the company has the ability to provide a performance bond to cover the
39 estimated cost of restoration upon facility retirement of \$14,424,936. The Department’s

¹⁶ Request for Amendment No. 2, Attachment D.

1 assessment and recommendation to Council is that the certificate holder maintains the ability
2 to comply with the Retirement and Financial Assurances standard.

3 In the *Final Order on Amendment No. 2*, Section III.A.1, the Council reaffirmed its finding from
4 the *Final Order on the Application*, in determining that a single third party permit was required
5 and has been acquired.¹⁷ As explained, the certificate holder entered into an agreement under
6 which the facility would transmit power to the BPA system by means of an existing third party
7 transmission line serving the Hay Canyon Wind Farm. The certificate holder previously provided
8 the Conditional Use Permit for the Hay Canyon Wind Farm as evidence that the third party
9 permit has been issued and a copy of the Memorandum of Shared Use Agreement as evidence
10 that it has entered into an agreement with the owner of the Hay Canyon Wind Farm for the use
11 of the transmission line.¹⁸ The site certificate holder does not report any changes in these
12 circumstances related to the third-party permit.¹⁹

13 The existing site certificate includes a number of conditions related to the Organizational
14 Expertise standard. These conditions are IV.B.1 to IV.B.8.²⁰ The Department does not
15 recommend any changes to these existing conditions.

16 Based on the evidence provided, the Department recommends that the Council determine that
17 the certificate holder continues to have the ability to construct, operate, and retire the facility
18 in compliance with Council standards and all site certificate conditions, as required by the
19 Organizational Expertise standard.

20 **Conclusion of Law**

21 Based on the evidence in the record, the Department recommends that the Council find that,
22 subject to compliance with the site certificate conditions, the certificate holder continues to
23 satisfy the Council's Organizational Expertise standard.

24 **IV.A.3 Structural Standard: OAR 345-022-0020**

25 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council*
26 *must find that:*

27 *(a) The applicant, through appropriate site-specific study, has adequately characterized*
28 *the site as to the Maximum Considered Earthquake Ground Motion as shown for the*
29 *site in the 2009 International Building Code and maximum probable ground motion,*
30 *taking into account ground failure and amplification for the site specific soil profile*
31 *under the maximum credible and maximum probable seismic events; and*

32 *(b) The applicant can design, engineer, and construct the facility to avoid dangers to*
33 *human safety presented by seismic hazards affecting the site that are expected to*
34 *result from maximum probable ground motion events. As used in this rule "seismic*

¹⁷ Final Order on Amendment No. 2, Section III.A.1.

¹⁸ At the time the Final Order on Amendment No. 2 was issued, the Memorandum of Shared Use Agreement identified Iberdrola Renewables as the developer of the Hay Canyon Wind Farm and transmission line. However, as a result of a corporate merger in December 2015, Iberdrola Renewables was renamed Avangrid Renewables.

¹⁹ RFA No. 3, Section 5.1.2.

²⁰ The recommended amended site certificate is included as Attachment A to this revised proposed order.

- 1 *hazard” includes ground shaking, ground failure, landslide, liquefaction, lateral*
2 *spreading, tsunami inundation, fault displacement, and subsidence;*
- 3 *(c) The applicant, through appropriate site-specific study, has adequately characterized*
4 *the potential geological and soils hazards of the site and its vicinity that could, in the*
5 *absence of a seismic event, adversely affect, or be aggravated by, the construction*
6 *and operation of the proposed facility; and*
- 7 *(d) The applicant can design, engineer and construct the facility to avoid dangers to*
8 *human safety presented by the hazards identified in subsection (c).*
- 9 *(2) The Council may issue a site certificate for a facility that would produce power from*
10 *wind, solar or geothermal energy without making the findings described in section (1).*
11 *However, the Council may apply the requirements of section (1) to impose conditions on*
12 *a site certificate issued for such a facility.*

13 ...

14 **Findings of Fact**

15 Section (1) of the Structural standard generally requires the Council to evaluate whether the
16 certificate holder has adequately characterized the potential seismic, geological and soil
17 hazards of the site, and can design, engineer and construct the facility to avoid dangers to
18 human safety from these hazards.²¹ Under Section (2), the Council may issue a site certificate
19 for a wind energy facility without making findings regarding the Structural standard; however,
20 the Council may apply the requirements of the standard to impose site certificate conditions.

21 The Council addressed the Structural standard in section V.A. of the *Final Order on the*
22 *Application*. The Council imposed five conditions to the site certificate to address issues related
23 to the Structural standard. Neither the first nor second amendments to the site certificate
24 affected the findings regarding the Structural standard. As a result, the *Final Order on*
25 *Amendment No. 1* and *Final Order on Amendment No. 2* relied on the analysis in the *Final Order*
26 *on the Application*.

27 RFA No. 3 would also extend construction deadlines, and would not change the micro-siting
28 turbine corridors. Wind turbines would be located in the same micro-siting corridor locations as
29 previously considered and approved by Council. The two new areas to be added to the site
30 boundary would accommodate short segments of the 230 kV transmission line. The certificate
31 holder states in RFA No. 3 that these new areas of the site boundary would not cross active
32 earthquake faults or liquefiable soils, and that the analysis conducted for the original site
33 certificate application included a regional seismic hazard analysis and included the areas
34 requested to be added to the site boundary. The certificate holder further states that the soil
35 site class, underlying bedrock structure, and maximum earthquake potential of the two new
36 site boundary areas are consistent with the analysis and characterization conducted for the
37 original site certificate application.²²

²¹ The Council does not preempt the jurisdiction of any state or local government over matters related to building code compliance.

²² RFA No. 3, Section 5.1.3.

1 Additionally, the site certificate contains a number of conditions related to the Structural
2 standard (conditions V.A.1 to V.A.5), including a requirement that the certificate holder conduct
3 a geotechnical investigation prior to construction in compliance with Oregon Department of
4 Geology and Mineral Industries standards. These conditions would reduce the risk of seismic
5 and nonseismic hazards from the facility.

6 Based on the findings above, and the previous consideration and approval of the site certificate
7 application by Council, the Department does not recommend any changes or additions to the
8 conditions imposed in the existing site certificate related to the Structural standard.

9 **Conclusion of Law**

10 The Department recommends that the Council find that the conditions currently imposed in the
11 site certificate to address the Structural standard ensure issues related to that standard are
12 fully addressed.

13 **IV.A.4 Soil Protection: OAR 345-022-0022**

14 *To issue a site certificate, the Council must find that the design, construction and operation of*
15 *the facility, taking into account mitigation, are not likely to result in a significant adverse impact*
16 *to soils including, but not limited to, erosion and chemical factors such as salt deposition from*
17 *cooling towers, land application of liquid effluent, and chemical spills.*

18 **Findings of Fact**

19 The Soil Protection standard requires the Council to find that the design, construction and
20 operation of the facility are not likely to result in significant adverse impacts to soil. The Council
21 addressed the Soil Protection standard in section IV.E. of the *Final Order on the Application*. The
22 Council found that the design, construction, and operation of the facility, when taking into
23 account mitigation, would not result in a significant adverse impact to soils. The site certificate
24 includes specific conditions to control and mitigate potential adverse impact to soils and to
25 mitigate the risk of soil contamination during construction and operation (Conditions IV.E.1 to
26 IV.E.6).

27 Both the first and second amendments to the site certificate extended the construction
28 deadlines and did not result in a change to the Council's original findings that the facility would
29 not result in significant adverse impacts to soils. As a result, the *Final Order on Amendment*
30 *No. 1* and *Final Order on Amendment No. 2* relied on the analysis in the *Final Order on the*
31 *Application*.

32 RFA No. 3 would also extend construction deadlines, and would not change the micro-siting
33 turbine corridors. Wind turbines would be located in the same locations as previously
34 considered and approved by Council. The certificate holder estimates that the temporary
35 impacts of the facility would increase from the previously evaluated 1,055 acres to 1,069 acres
36 from the temporary access road width increase; the certificate holder estimates that
37 permanent impacts of the facility would decrease from the previously evaluated 141 acres to
38 132 acres, based on the site design changes associated with RFA No. 3.²³

²³ Golden Hills Supplemental Information Report, page 3.

1 The two new areas to be added to the site boundary would accommodate short segments of
2 the 230 kV transmission line. The certificate holder states in RFA No. 3 that these new portions
3 of the site boundary would be located on land with soil types, slopes, and crop cover that are
4 consistent with the land in the previously approved site boundary. Soil type is stated to be
5 primarily Walla Walla silt loam, slopes less than 15 percent, and used for dryland wheat, alfalfa,
6 and pasture land.²⁴ As described previously, one of the new site boundary expansion areas is
7 adjacent to the existing site boundary, and the other is approximately 3 miles from the site
8 boundary.

9 There are no changes to the proposed turbine string micro-siting corridor locations. As explained
10 by the certificate holder, the temporary access road width would be expanded to 40 feet from
11 the previously considered 36 feet, in order to accommodate transport and installation of the
12 larger wind turbines. However, existing conditions in the site certificate (Conditions IV.E.1 to
13 IV.E.6) would require Golden Hills to construct the facility in compliance with an erosion and
14 sediment control plan satisfactory to Oregon Department of Environmental Quality (DEQ) as
15 per the requirements of a National Pollutant Discharge Elimination System (NPDES) 1200-C
16 permit; salvage topsoil from areas of temporary impacts and stockpile for redistribution;
17 implement a weed control plan to reduce the spread of noxious weeds; and, eliminate concrete
18 wash water runoff, among other requirements. The existing site certificate conditions would
19 apply to the entire facility, including the expanded temporary roads and the new site boundary
20 areas. These conditions would help protect soils, in compliance with the Soil Protection
21 standard.

22 Existing site certificate Condition IV.E.4 requires that the certificate holder develop in
23 consultation with the Sherman County Weed Control manager a plan to control the
24 introduction and spread of noxious weeds, and then implement that plan during facility
25 construction and operation. However, both the Department and ODFW have important roles,
26 responsibilities, and interests in also ensuring that noxious weeds are not introduced or spread
27 during facility construction and operation. In order to improve coordination between agencies,
28 and ensure that the Department is clearly involved in managing site certificate compliance, the
29 Department recommends the following change to condition IV.E.4.

30 Soil Protection IV.E.4. ~~Prior to construction, the certificate holder shall develop a plan to~~
31 ~~control the introduction and spread of noxious weeds during facility construction and~~
32 ~~operation. The plan shall be developed in consultation with the Department, the Sherman~~
33 ~~County Weed Control manager, and ODFW. The plan shall be approved by the Department~~
34 ~~prior to construction. The plan shall focus on weed species listed on the Sherman County~~
35 ~~noxious weed list, but shall also include preventative measures to combat noxious weeds of~~
36 ~~concern in the area.~~

37 ~~During construction and operation of the facility, the certificate holder shall implement a~~
38 ~~plan, developed in consultation with the Sherman County Weed Control manager, to~~
39 ~~control the introduction and spread of noxious weeds.~~

²⁴ RFA No. 3, Section 5.1.4.

1 For the reasons described above, the current amendment request is not expected to result in
2 soil impacts that have not been previously addressed by the Council, or affect the facility's
3 compliance with the Soil Protection standard. The certificate holder would remain subject to
4 the conditions included in the site certificate. The Department does not recommend any
5 changes to the Soil Protection conditions already included in the site certificate.

6 **Conclusion of Law**

7 Based on the reasoning discussed above, and subject to continued compliance with the
8 conditions in the site certificate, the Department recommends that the Council find that the
9 facility, as amended, complies with the Council's Soil Protection standard.

10 **IV.A.5 Land Use: OAR 345-022-0030**

11 *(1) To issue a site certificate, the Council must find that the proposed facility complies with*
12 *the statewide planning goals adopted by the Land Conservation and Development*
13 *Commission.*

14 *(2) The Council shall find that a proposed facility complies with section (1) if:*

15 *(a) The applicant elects to obtain local land use approvals under ORS 469.504(1)(a) and*
16 *the Council finds that the facility has received local land use approval under the*
17 *acknowledged comprehensive plan and land use regulations of the affected local*
18 *government; or*

19 *(b) The applicant elects to obtain a Council determination under ORS 469.504(1)(b) and*
20 *the Council determines that:*

21 *A. The proposed facility complies with applicable substantive criteria as described in*
22 *section (3) and the facility complies with any Land Conservation and*
23 *Development Commission administrative rules and goals and any land use*
24 *statutes directly applicable to the facility under ORS 197.646(3);*

25 *B. For a proposed facility that does not comply with one or more of the applicable*
26 *substantive criteria as described in section (3), the facility otherwise complies*
27 *with the statewide planning goals or an exception to any applicable statewide*
28 *planning goal is justified under section (4); or*

29 *C. For a proposed facility that the Council decides, under sections (3) or (6), to*
30 *evaluate against the statewide planning goals, the proposed facility complies*
31 *with the applicable statewide planning goals or that an exception to any*
32 *applicable statewide planning goal is justified under section (4).*

33 *(3) As used in this rule, the "applicable substantive criteria" are criteria from the affected*
34 *local government's acknowledged comprehensive plan and land use ordinances that are*
35 *required by the statewide planning goals and that are in effect on the date the applicant*
36 *submits the application. If the special advisory group recommends applicable*
37 *substantive criteria, as described under OAR 345-021-0050, the Council shall apply them.*
38 *If the special advisory group does not recommend applicable substantive criteria, the*
39 *Council shall decide either to make its own determination of the applicable substantive*

1 *criteria and apply them or to evaluate the proposed facility against the statewide*
2 *planning goals.*

3 *(4) The Council may find goal compliance for a proposed facility that does not otherwise*
4 *comply with one or more statewide planning goals by taking an exception to the*
5 *applicable goal. Notwithstanding the requirements of ORS 197.732, the statewide*
6 *planning goal pertaining to the exception process or any rules of the Land Conservation*
7 *and Development Commission pertaining to the exception process, the Council may take*
8 *an exception to a goal if the Council finds:*

9 *(a) The land subject to the exception is physically developed to the extent that the land is*
10 *no longer available for uses allowed by the applicable goal;*

11 *(b) The land subject to the exception is irrevocably committed as described by the rules*
12 *of the Land Conservation and Development Commission to uses not allowed by the*
13 *applicable goal because existing adjacent uses and other relevant factors make uses*
14 *allowed by the applicable goal impracticable; or*

15 *(c) The following standards are met:*

16 *A. Reasons justify why the state policy embodied in the applicable goal should not*
17 *apply;*

18 *B. The significant environmental, economic, social and energy consequences*
19 *anticipated as a result of the proposed facility have been identified and adverse*
20 *impacts will be mitigated in accordance with rules of the Council applicable to*
21 *the siting of the proposed facility; and*

22 *C. The proposed facility is compatible with other adjacent uses or will be made*
23 *compatible through measures designed to reduce adverse impacts.*

24 *****

25 **Findings of Fact**

26 The Land Use standard requires the Council to find that a proposed facility complies with the
27 statewide planning goals adopted by the Land Conservation and Development Commission
28 (LCDC).²⁵ In considering this amendment request, OAR 345-027-0070(10) requires the Council
29 to apply the applicable substantive criteria in effect on the date the certificate holder submits a
30 request for amendment.

31 The applicable substantive criteria from the Sherman County Code have not changed since the
32 Council reviewed the previous RFA. In response to RFA No. 3, Sherman County provided two
33 comments letters. The first letter stated no objection to the RFA but requested that if any wind
34 turbines were to be sited in a new area not previously considered in the application or
35 subsequent amendments, that Sherman County Setback Ordinance #39-2007 needs to apply to
36 those new turbine locations. The second letter, received after the supplemental material was
37 provided by Golden Hills, clarified the position of Sherman County, noting that no turbines are
38 proposed to be located outside of the previously approved site boundary or in any new area

²⁵ The Council must apply the Land Use standard in conformance with the requirements of ORS 469.504.

1 not previously considered in the application, and as such the setback ordinance would not
2 apply. The new site boundary area currently under consideration would accommodate two
3 short segments of the 230 kV transmission line but no wind turbines.²⁶

4 The Council previously concluded that the facility complies with the Land Use standard. The
5 certificate holder has stated that the changes requested in RFA No. 3 would not affect the
6 Council's previous findings, as all turbines would still be located within the previously approved
7 micrositing corridors. The temporary impacts of access roads would be slightly wider if larger
8 turbines are used (up to 40 feet width, from 36 feet), and while one of the two previously
9 approved substations will be eliminated, the one remaining substation would be expanded
10 from 2 to 5 acres. RFA No. 3 also requests the ability to use turbines that are taller and have a
11 larger rotor diameter than previously considered. However, all turbines, roads, and the
12 substation would be within the previously approved site boundary, on land zoned EFU. This is
13 consistent with EFSC's finding of compliance with the land use standard in the previous two
14 amendments and the original final order, and would be subject to the existing conditions
15 included in the site certificate (Conditions IV.D.1 to IV.D.22). As noted, Sherman County has
16 expressed no objection of the amendment and provided no additional comment on the
17 amendment request aside from noting that should any turbines be located outside of
18 previously approved corridors, that County Setback Ordinance #39-2007 would apply. As
19 stated, no turbines would be located outside of the previously approved micrositing corridors,
20 and all turbines must comply with the setback ordinance per site certificate Condition IV.D.22.

21 The only facility components to be added within the expanded site boundary area in RFA No. 3
22 would allow for two short segments of 230 kV transmission line to connect the facility to the
23 BPA transmission grid. In the original site certificate application (and previous two
24 amendments), Golden Hills requested and received Council approval to build and construct two
25 transmission lines to connect the facility to the BPA grid, plus two substations associated with
26 each transmission line. One of these transmission lines was to be a 500 kV transmission line and
27 a substation to connect the facility to an existing BPA substation north of the site boundary. As
28 noted throughout this revised proposed order, the current amendment request eliminates the
29 need for the 500 kV transmission line and the associated substation. The previously approved
30 230 kV transmission line would then be extended to a more central location in the site
31 boundary, and connect with a single substation serving the entire facility. The Council
32 previously approved over 11 miles of new transmission line and two substations; the current
33 RFA No. 3 would instead require 5 miles of new transmission to be constructed at 230 kV, and
34 one substation.

35 As noted, there have been no changes to the applicable substantive criteria for the Golden Hills
36 facility, and as such, the following criteria continue to apply to the facility:

37 **SCZO Article 3. Use Zones**

38 ***SCZO Section 3.1 – Exclusive Farm Use Zone, F-1 Zone***

²⁶ Sherman County Comment Letters, March 1, 2016 and May 18, 2016.

1 **SCZO Section 3.1(1).** *General Purpose - To protect agricultural uses from encroachment by*
2 *other incompatible uses and to provide tax incentives to assure that a maximum amount of*
3 *agricultural land is retained in agricultural uses.*

4 The Council has previously found the facility to be compatible with siting in the F-1 EFU zone.
5 The changes as part of RFA No. 3 would not affect the previous findings. As described below,
6 the facility is a “commercial utility facility” and as such is a conditionally permitted use in the F-
7 1 zone. The associated transmission line is a “utility facility necessary for public service,” and
8 under ORS 215.283(1)(c), utility facilities necessary for public service are allowed in EFU zones
9 subject to the provisions of ORS 215.275. This assessment is included below in this section. As
10 shown on Table 1 in Section IV.A.9, *Fish and Wildlife Habitat standard* section, the certificate
11 holder estimates that approximately 126.5 acres of agriculture land (Category 6 habitat) would
12 be permanently impacted by the amended facility.

13 **SCZO Section 3.1(2).** *Uses Permitted - In the F-1 Zone, the following uses and their accessory*
14 *uses are permitted:*

15 * * * * *

16 (g) *Reconstruction or modification of public roads and highways, not including the addition*
17 *of travel lanes, where no removal or displacement of buildings will occur, or new land*
18 *parcels result.*

19 * * * * *

20 (x) *Transportation improvements.*

21 1) *Normal operation, maintenance, repair, and preservation activities of existing*
22 *transportation facilities*

23 * * * * *

24 The Council considered this section of the SCZO in the *Final Order on the Application* and found
25 the facility to be in compliance. The RFA No. 3 amendments would not affect this finding as no
26 changes are proposed that would affect the certificate holder’s plans for improvements to
27 public roads and highways.

28 **SCZO Section 3.1(3).** *Conditional Uses Permitted - In an F-1 Zone, the following uses and their*
29 *accessory uses are permitted when authorized in accordance with the requirements of*
30 *Article 5 of this Ordinance and this Section:*

31 * * * * *

32 (q) *Commercial utility facilities.*

33 * * * * *

34 (gg) *Transportation Improvements. (Ord No. 22-05-2003)*

35 * * * * *

36 The Council considered this section of the SCZO in the *Final Order on the Application* and found
37 the facility to be in compliance. The RFA No. 3 amendments would not affect this finding. The

1 Golden Hills facility remains a “commercial utility facility.” The requirements of Article 5 are
2 further discussed below.

3 **SCZO Section 3.1(4)(c)—Dimensional Standards/Setback Requirements**

4 *(c) In an F-1 (EFU) Zone, the minimum setback requirements shall be as follows:*

- 5 1) *The front and rear setbacks from the property line shall be 30 feet, except that*
6 *the front yard setback from the right-of-way of an arterial or major collector or*
7 *road shall be 50 feet, unless approved otherwise by the Planning Commission.*
- 8 2) *Each side yard setback from a property line shall be a minimum of 25 feet, and*
9 *for parcels or lots involving a non-farm residential use with side yard(s) adjacent*
10 *to farm lands, said adjacent side yards shall be a minimum of 50 feet, unless*
11 *approved otherwise by the Planning Commission.*

12 The Council considered this section of the SCZO in the *Final Order on the Application*. In order
13 to maintain compliance with the code provision and minimize the facility’s impact to
14 neighboring properties, the Council included site certificate Condition IV.D.4, requiring above
15 ground facility structures (including wind turbines, O&M building, substations, and met towers,
16 but not including aboveground power collection and transmission lines and poles and junction
17 boxes) not be located within 50 feet from any property line or within 50 feet from the right-of-
18 way of any arterial or major collector road. However, Council found in the *Final Order on the*
19 *Application* that the exclusion of the aboveground power collection and transmission lines,
20 poles, and junction boxes conflict with the SCZO. Therefore, in the *Final Order on the*
21 *Application*, the Council conducted an analysis of whether the facility complies with statewide
22 planning Goal 3, Agriculture Lands, even though the identified facilities would not satisfy the 50
23 foot setback requirement. As described below, Council found the facility to be in compliance
24 with the provisions of this rule and therefore in compliance with Goal 3 pursuant to ORS
25 469.504(1)(b). The Department recommends the Council confirm its previous findings from the
26 *Final Order on the Application* and find that the facility, as amended for RFA No. 3, complies
27 with the EFU dimensional standards and Goal 3.

28 **SCZO Section 3.7 – Natural Hazards Combining Zone (NH)**

29 *In any zone that is combined with the (NH) Combining Zone, the requirements and standards*
30 *of this Section shall apply in addition to those set forth in the primary zone, provided that if a*
31 *conflict occurs, the more restrictive provisions shall govern.*

32 **SCZO Section 3.7(1). Purpose** - *The purpose of the (NH) Combining Zone is to promote and*
33 *protect the public health, safety and general welfare and to minimize potential losses by*
34 *providing guidelines for development in hazard areas. Development limitations are*
35 *applicable to developments in areas of surface water accumulations and high groundwater,*
36 *unstable or fragile soils, geological hazards, and steep slopes, generally those of 30 percent*
37 *or greater.*

38 **SCZO Section 3.7(3). Conditional Uses** - *In any Zone with which the (NH) Zone is combined,*
39 *all uses permitted by the primary Zone, except those set forth in Subsection (2) above, shall*
40 *be permitted only as Conditional Uses and subject to the provisions of this Zone and the*

1 *primary Zone. Said permits shall be processed in accordance with the provisions set forth for*
2 *a Conditional Use, or as set for by this Ordinance.*

3 **SCZO Section 3.7(4). Permit for Use or Development in a (NH) Zone** – *No person shall*
4 *construct, reconstruct, or install a use or development unless a permit therefore has been*
5 *received, except for those uses permitted as Outright by Subsection (2) of this Section.*
6 *Except for the improvement of an existing structure which is less than substantial as*
7 *determined by a Certified Building Official or the County upon appeal, no permit shall be*
8 *issued unless the use or development will be determined to be reasonably safe from the*
9 *applicable hazard, and otherwise in compliance with the provisions of this Section, the NH*
10 *Zone, this Ordinance, and other applicable regulations.*

11 **SCZO Section 3.7(5). Application Requirements for a Use in a (NH) Zone** – *An application for*
12 *a use or development in a Zone with which the (NH) Zone is combined shall be accompanied*
13 *by the following:*

14 (a) *Site Investigation Report: An application for a use or development in a (NH) Zone*
15 *requires a site investigation report for the subject-affected area. The site investigation*
16 *report shall provide information on the site of the proposed use or development and*
17 *surrounding and adjacent lands that are most likely to be affected thereby. Unless the*
18 *County determines that specific items are not required, the report shall include the*
19 *information described in this Subsection, together with appropriate identification of*
20 *information sources and the date of the information. The approved site investigation*
21 *report may be require to be reference in the deed and other documents of sale, and may*
22 *be required to be recorded with the deed of record.*

23 (b) *Background Data in Report. At a minimum, the Site Investigation Report shall contain*
24 *the following background information:*

- 25 1) *A general analysis of the affected site and general area's topography and geology,*
26 *including faults, folds, geologic and engineering geologic units, and any soils, rock*
27 *and structural details important to the engineering or geological interpretations and*
28 *the their relative activity.*
- 29 2) *Location and approximate depths of seasonal surface water accumulations and*
30 *groundwater tables, and location and direction of all watercourses, including*
31 *intermittent flows.*
- 32 3) *A history of soil and water related problems on the site and adjacent lands, which*
33 *may be derived from discussions with local residents and officials and the study of*
34 *old photographs, reports and newspaper files.*
- 35 4) *The extent of the surface soil formation and its relationship to the vegetation of the*
36 *site, the activity of the landform, and the locations on the site and surrounding areas.*
- 37 5) *The following ground photographs of the site and surrounding areas with*
38 *information showing the scale and date of photographs and their relationship to the*
39 *topographic map and profiles:*
- 40 A. *A view of the general area.*

- 1 B. *The site of the proposed development.*
- 2 C. *Any features which are important to the interpretation of the hazard potential of*
3 *the site, including all sites of erosion, surface or groundwater accumulations, or*
4 *accretion.*
- 5 (c) *Topography Map. A topography base map at a scale of not more than 1:100 with a*
6 *contour interval of 2 feet shall be prepared identifying the following features and*
7 *accompanied by references to the source(s) and date(s) of information used.*
- 8 1) *Position of lot lines.*
- 9 2) *Boundaries of the property.*
- 10 3) *Each geological feature classification type.*
- 11 4) *Areas of open ground and the boundaries and species identification of major plant*
12 *communities.*
- 13 5) *Any springs, streams, marshy areas, standing bodies of water, intermittent*
14 *waterways, drainage ways, and high groundwater areas with highest annual levels.*
- 15 6) *Cut terraces, erosion scarps, and areas exhibiting significant surface erosion due to*
16 *improper drainage and runoff concentration.*
- 17 7) *Geological information, including lithologic and structural details important to*
18 *engineering and geologic interpretations.*
- 19 (d) *Subsurface Analysis. If upon initial investigation it appears there are critical areas where*
20 *the establishment of geologic conditions at specific depths is required, a subsurface*
21 *analysis obtained by drilling holes, well logs, and other geophysical techniques shall be*
22 *conducted, or caused to be conducted by a qualified expert, by the person responsible for*
23 *the site, and investigation report to include the following data as appropriate.*
- 24 1) *The lithology and compaction of all subsurface horizons to bedrock.*
- 25 2) *The depth, width, slope and bearing of all horizons containing significant amounts of*
26 *silt and clay and any other subsurface layers which could reduce the infiltration of*
27 *surface waters.*
- 28 (e) *Development Proposal. The site investigation report shall include the following*
29 *information on the proposed development as applicable:*
- 30 1) *Plans and profiles showing the position and height of each structure, paved areas,*
31 *and areas where cut and fill is required for construction.*
- 32 2) *The percent and location of the surface of the site, which will be covered by*
33 *impermeable surfaces.*
- 34 3) *A stabilization program for the development describing:*
- 35 A. *How much of the site will be exposed during construction and what measures will*
36 *be taken to reduce erosion and soil movement during construction.*

1 B. *A revegetation plan designed to return open soil areas, both preexisting and*
2 *newly created, to a stable condition as soon as possible following construction*
3 *and the period of time during which revegetated areas will receive revegetation*
4 *maintenance.*

5 C. *Areas to be protected from vegetation loss or ground water pollution shall be*
6 *identified and means for protection described.*

7 (f) *Conclusions in the Site Investigation:*

8 1) *The site investigation report shall contain conclusions stating the following:*

9 A. *How the intended use of the land is compatible with the natural conditions; and*

10 B. *Any existing or potential hazards noted during the investigation.*

11 2) *Mitigating recommendations for specific areas of concern shall be included.*

12 3) *Conclusions shall be based on data included in the report, and the sources of*
13 *information and facts relied upon shall be specifically referenced.*

14 **SCZO Section 3.7(6).** *Standards for Building Construction in NH Zone*

15 (a) *Building construction shall only be approved under conditions that do not adversely*
16 *affect geological stability, surface or ground waters, or vegetation.*

17 (b) *The grading of land and the orientation and design of buildings shall avoid creating*
18 *conditions that will cause erosion or accretion of soil, or surface and ground water*
19 *contamination. Where there is some risk of these conditions occurring, a Qualified*
20 *Geological or Hydrological Expert, whichever is applicable, shall certify that the design*
21 *and control measures will comply with this standard.*

22 (c) *Construction work shall be scheduled and conducted to avoid erosion, and temporary*
23 *stabilization measures may be needed until permanent installations are accomplished.*

24 **SCZO Section 3.7(7).** *Standards for an Access Route in NH Zone – An access route within a*
25 *(NH) Zone shall comply with the following provisions:*

26 (a) *A road or street shall be stabilized by planking, gravel or pavement as deemed*
27 *necessary; and*

28 (b) *Roadways shall be built without installation of excessive fill, diversion of water, or*
29 *excessive cuts unless the site investigation determines that such conditions will not be*
30 *detrimental to the area or create unwarranted maintenance problems or additional*
31 *hazards.*

32 The Council addressed the requirements of the Natural Hazards (NH) Combining Zone in the
33 *Final Order on the Application.* While no wind turbines would be located in the NH zone,
34 portions of the transmission line and collector lines may be located in the NH zone. With

1 conditions, the Council found the facility to be in compliance with the requirements of the NH
2 zone (conditions IV.D.5 to IV.D.9).²⁷

3 As part of RFA No. 3, the short segment of transmission contiguous to the existing approved
4 site boundary that would connect to the Hay Canyon transmission line would be located in the
5 NH Combining Zone. In the original *Final Order on Application*, the Council reviewed and
6 approved transmission line in the same Natural Hazards Combining Zone.²⁸ The certificate
7 holder is relying upon the Council’s same finding of approval for the transmission line within
8 this zone. As noted, in the *Final Order on Application*, the Council assessed 230 kV transmission
9 lines within the NH Combining Zone and determined that with a number of conditions, the
10 transmission line would be compatible and in compliance with the NH Combining Zone
11 ordinances and criteria. The site certificate conditions related to compliance with siting a
12 transmission line in the Natural Hazards Combining Zone are conditions IV.D.5 to IV.D.9, and
13 these conditions would continue to apply to the amended facility.

14 **SCZO Article 4. Supplementary Provisions**

15 ***SCZO Section 4.9—Compliance with and Consideration of State and Federal Agency Rules***
16 ***and Regulations***

17 *Approval of any use or development proposal pursuant to the provisions of this Ordinance*
18 *shall require compliance with and consideration of all applicable State and Federal agency*
19 *rules and regulations.*

20 All applicable state rules and regulations related to the facility siting, as identified in the project
21 order, are included in and governed by the site certificate. The Council has previously found the
22 facility in compliance with all applicable state rules and regulations, and as such, has issued a
23 site certificate. In this revised proposed order related to RFA No. 3, the Department is
24 recommending that the Council again find the facility, as amended, in compliance with all
25 applicable Council standards and state rules and regulations, and issue an amended site
26 certificate. Any other state rules and regulations, outside of the site certificate, as well as
27 federal rules and any federal rules delegated to state agencies, are outside of EFSC jurisdiction.
28 The certificate holder must comply with any such rules and regulations independent of the site
29 certificate review process.

30 ***SCZO Section 4.13 Additional Conditions to Development Proposals***

31 *The County may require additional conditions for development proposals.*

- 32 1. *The proposed use shall not reduce the level of service (LOS) below a D rating for the*
33 *public transportation system. For developments that are likely to generate more than a*
34 *V/C ratio of 75 or greater, the applicant shall provide adequate information, such as a*
35 *traffic impact study or traffic counts, to demonstrate the level of impact to the*

²⁷ The Department recommends minor clerical edits to site certificate conditions IV.D.8 and IV.D.9 to expand the acronym “NH” to the full name of the zone, “Natural Hazards Combining Zone,” for ease of readability and compliance.

²⁸ Final Order on Application, starting on page 43.

1 *surrounding road system. The developer shall be required to mitigate impacts*
2 *attributable to the project.*

3 2. *The determination of the scope, area, and content of the traffic impact study shall be*
4 *coordinated with the provider of the affected transportation facility, i.e., city, county,*
5 *state.*

6 3. *Dedication of land for roads, transit facilities, sidewalks, bikeways, paths, or access ways*
7 *shall be required where necessary to mitigate the impacts to the existing transportation*
8 *system caused by the proposed use.*

9 4. *Construction of improvements such as paving, curbing, installation or contribution to*
10 *traffic signals, construction of sidewalks, bikeways, access ways, paths, or roads that*
11 *serve the proposed use where necessary to mitigate the impacts to the existing*
12 *transportation system caused by the proposed use.*

13 The Council considered these provisions in the *Final Order on the Application*, and the proposed
14 amendments of RFA No. 3 would not change the Council's previous findings. The facility, as
15 amended, is not expected change any previous findings related to these provisions, and as such
16 is not expected to reduce the LOS of a public road to less than a D rating. The Department
17 addressees the amended facility's potential impact to public services including traffic services in
18 Section IV.A.13, Public Services of the revised proposed order. The Council has previously
19 included a number of conditions related to mitigating and minimizing the facility's impact to
20 traffic and local roads. These conditions would continue to apply to the amended facility. These
21 conditions include V.C.10 to V.C.13.

22 **SCZO Article 5. Conditional Uses**

23 ***SCZO Section 5.2 General Criteria***

24 *In determining whether or not a Conditional Use proposal shall be approved or denied, it*
25 *shall be determined that the following criteria are either met or can be met through*
26 *compliance with specific conditions of approval.*

27 1. *The proposal is compatible with the applicable provisions of the County Comprehensive*
28 *Plan and applicable Policies.*

29 2. *The proposal is in compliance with the requirements set forth by the applicable primary*
30 *Zone, by any other applicable combining zone, and other provisions of this Ordinance*
31 *that are determined applicable to the subject use.*

32 3. *That, for a proposal requiring approval or permits from other local, state, and/or federal*
33 *agencies, evidence of such approval or permit compliance is established or can be*
34 *assured prior to final approval.*

35 4. *The proposal is in compliance with specific standards, conditions, and limitations set*
36 *forth for the subject use in this Article and other specific relative standards required by*
37 *this or other County Ordinance.*

1 5. *That no approval be granted for any use which is or is expected to be found to exceed*
2 *resource or public facility carrying capacities, or for any use which is found to not be in*
3 *compliance with air, water, land, and solid waste or noise pollution standards.*

4 6. *That no approval be granted for any use violation of this Ordinance.*

5 7. *SCZO Section 5.8 Standards Governing Specific Conditional Uses*

6 The Council addressed the General Criteria in the *Final Order on the Application*, and found the
7 facility to be in compliance with the criteria. As described elsewhere in this section and
8 elsewhere in the revised proposed order, the facility, as amended, would maintain compliance
9 with all applicable substantive criteria, as well as other applicable Council standards and other
10 applicable Oregon rules and statutes.

11 ***SCZO Section 5.8 Standards Governing Specific Conditional Uses***

12 *A Conditional Use set forth by this Ordinance shall be subject to review by the Planning*
13 *Commission in accordance with the public hearing requirements set forth in this Ordinance.*

14 ***SCZO Section 5.8 Standards Governing Specific Conditional Uses***

15 * * * * *

16 *(14) - Public Facilities and Services*

17 *(a) Public facilities including, but not limited to, utility substations, sewage treatment*
18 *plants, storm water and water lines, water storage tanks, radio and television*
19 *transmitters, electrical generation and transmission devices, fire stations and other*
20 *public facilities shall be located so as to best serve the County or area with a*
21 *minimum impact on neighborhoods, and with consideration for natural or aesthetic*
22 *values.*

23 *(b) Structures shall be designed to be as unobtrusive as possible. Wherever feasible, all*
24 *utility components shall be placed underground.*

25 *(c) Public facilities and services proposed within a wetland or riparian area shall provide*
26 *findings that: Such a location is required and a public need exists; and Dredge, fill*
27 *and adverse impacts are avoided or minimized.*

28 The Council addressed these criteria in the *Final Order on the Application*, and the certificate
29 holder is relying upon those findings to show compliance of the amended facility. As the Council
30 found in the *Final Order on the Application*, the Golden Hills facility as well as related and
31 supporting facilities including transmission lines and collector lines, will be located as best to
32 serve the county as they will be located around the available wind resource in a way that
33 minimizes the impact to agricultural operations and surrounding land uses. The facility, as
34 amended, would not change this finding. The facility has been sited to consider natural values,
35 demonstrated by the minimal impact to agriculture and the minimal impact to natural habitat.
36 As shown in the Fish and Wildlife Habitat standard section of this revised proposed order, the
37 majority of the habitat impacted by the amended facility would be Category 6 habitat. The
38 facility, as amended, would continue to not need a removal-fill permit as impacts to wetlands
39 are avoided and minimized below the permit requirement threshold. Section IV.D.2, *Removal-*

1 *Fill of this propose order further addresses the amended facility’s compliance with the DSL*
2 *removal-fill permit requirements and impacts to wetlands, and includes a new recommended*
3 *condition related to maintaining compliance with the removal-fill regulations.*

4 ***SCZO Section 5.8 Standards Governing Specific Conditional Uses***

5 ***20 - Non-farm Uses in an F-1 Zone - Non-farm uses, excluding farm related, farm accessory***
6 ***uses, or uses conducted in conjunction with a farm use as a secondary use thereof, may be***
7 ***approved upon a finding that each such use:***

- 8 1. *Is compatible with farm uses described in ORS 215.203(2);*
- 9 2. *Does not interfere seriously with accepted farming practices on adjacent lands devoted*
10 *to farm use;*
- 11 3. *Does not materially alter the overall land use pattern of the area;*
- 12 4. *Is situated upon generally unsuitable land for the production of farm crops and livestock,*
13 *considering the terrain, adverse soil or land conditions, drainage and flooding,*
14 *vegetation, location and size of the tract, and the availability of necessary support*
15 *resources for agriculture;*

16 Council considered this provision of the SCZO in the *Final Order on the Application* and found
17 that the facility, with conditions, is compatible with criteria 1-3. These conditions are IV.D.10 to
18 IV.D.12. The amended facility as part of RFA No. 3 would not change any of the findings, and all
19 existing conditions will continue to apply to the facility. Council found in the *Final Order on the*
20 *Application* that the facility did not comply with the fourth criteria as it would be located on
21 land generally suitable for crop production. Therefore, in the *Final Order on the Application*,
22 Council conducted an analysis of the directly-applicable statewide planning goal, Goal 3
23 Agriculture Lands. The LCDC rule implementing this goal for wind power generation facilities is
24 OAR 660-033-0130(37). As described below, Council found the facility to be in compliance with
25 the provisions of this rule and therefore in compliance with Goal 3. The certificate holder has
26 not noted any change to the facility design that would affect the Council’s previous finding of
27 compliance with the directly-applicable statewide planning goal as implemented through the
28 LCDC rule at OAR 660-033-0130(37).

29 OAR 660-033-0130(37) defines a “wind power generation facility” and provides criteria for the
30 approval of a wind power generating facility sited on farmland.²⁹ In the *Final Order on the*
31 *Application*, the Council found that the proposed facility met the approval criteria in OAR 660-
32 033-0130(37). In RFA No. 3, the certificate holder states that Council can continue to rely upon
33 its previous findings of compliance with the Land Use standard because all turbines will be sited
34 in the same micrositing corridors. The Department recommends the Council confirm its
35 previous findings from the *Final Order on the Application* and find that the facility, as amended
36 for RFA No. 3, complies with the provisions of OAR 660-033-0130(37).

²⁹ Sherman County has not adopted in its county code the provisions of OAR 660-033-130(37), *Minimum Standards Applicable to the Schedule of Permitted and Conditional Uses for Wind Power Generating Facilities*. As such, the rule directly applies to the facility.

1 **SCZO Article 11. Design & Improvement Standards & Requirements**

2 In the Final Order on the Application, Council found that Article 11 does not apply to the facility.
3 Article 11, as the Council concluded, only applies to developments that require “any subdivision
4 or partition of land,” and the facility does not require subdivision or partition of land. RFA No. 3
5 would not change this conclusion.

6 ***Sherman County Comprehensive Plan***

7 ***SCCP Section VIII. Planning Process and Citizen Involvement***

8 ***SCCP Section VIII, Goal I. To provide the opportunity for all citizens and effected agencies***
9 ***to participate in the planning process.***

10 ***Goal I, Policy I.***

11 *All land use planning public hearings, requiring public notice, shall be advertised in a*
12 *general circulation newspaper and be open to the public.*

13 The site certificate amendment process provides opportunities for all citizens and affected
14 agencies to participate in the review and planning process. Notification of this revised proposed
15 order has been sent to neighboring landowners, as well as members of the public who have
16 opted to receive notifications related to the Golden Hills facility proceedings or opted onto the
17 Council’s general notification list to receive information related to all EFSC facility proceedings.
18 The Department has also worked with reviewing agencies and Sherman County on the review
19 of RFA No. 3.

20 Policy 1 is not an applicable substantive criteria as it is administrative and related specifically to
21 land use planning public hearings. Furthermore, even if it were applicable, the EFSC
22 amendment review process does not require a land use planning public hearing.

23 ***Goal I, Policy II.***

24 *All effected [sic] agencies and effected [sic] landowners shall be notified by written*
25 *notice of any proposed site-specific land use change.*

26 All adjacent landowners and any affected agencies, including Sherman County, have been
27 notified of RFA No. 3 and this revised proposed order as per OAR 345-027-0070(5). Additionally,
28 notification has been sent to members of the public who have opted to receive notifications
29 related to the Golden Hills facility proceedings or opted onto the Council’s general notification
30 list to receive information related to all EFSC facility proceedings.

31 ***SCCP Section XI. Physical Characteristics***

32 ***SCCP Section XI, Goal I. Improve or maintain the existing quality of the physical***
33 ***environment within the County.***

34 ***Goal I, Policy I.***

35 *Erosion control provisions shall be incorporated into the subdivision requirements of the*
36 *Development Code. These shall require that the best practical methods be used to*
37 *control erosion from road and building construction sites as well as other changes in land*
38 *use, which may degrade the quality of the land, air and water.*

1 The Council addressed this goal and policy in Section IV.D of the *Final Order on the Application*,
 2 noting that the policy directs Sherman County to include erosion control provisions into the
 3 subdivision requirement of its development code, and as such is not directly applicable to the
 4 facility. However, Council also stated that the facility would comply with the goal by
 5 maintaining the existing quality of the physical environment within the county, and that the
 6 facility would control erosion as discussed in the Soil Protection standard section. The
 7 Department recommends the Council make the same conclusion for RFA No. 3. The amended
 8 facility, including the new site boundary areas, would still be subject to existing site certificate
 9 conditions related to erosion control including condition IV.E.1, requiring the facility be
 10 developed in compliance with an Erosion and Sediment Control Plan satisfactory to DEQ,
 11 condition IV.E.2, requiring management of topsoil during construction, and condition IV.E.3,
 12 requiring inspection and maintenance of the facility during operation to control erosion.

13 ***SCCP Section XI, Goal II. To protect life and property from natural disasters and hazards.***

14 The Council addressed this goal in Section IV.D of the *Final Order on the Application*, finding
 15 that the facility would comply with the goal. For RFA No. 3, while the facility would use taller
 16 turbines, it would still be subject to the existing site certificate conditions related to protection
 17 of public health and safety (conditions IV.I.1 to IV.I.8 and conditions VI.A.4.1 to VI.A.4.3), the
 18 Structural standard (conditions V.A.1 to V.A.5), and other conditions that would provide for the
 19 protection of life and property from natural disasters and hazards that may affect the facility.

20 The short segment of proposed new 230 kV transmission line, contiguous to the existing
 21 approved site boundary that would connect to the Hay Canyon transmission line, would be
 22 located in EFU zoned land (as is the entire facility), and would also be located in the Natural
 23 Hazards Combining Zone. In the original *Final Order on Application*, the Council reviewed and
 24 approved a transmission line in the same Natural Hazards Combining Zone.³⁰ The certificate
 25 holder is relying upon the Council's same finding of approval for the transmission line within
 26 this zone. In the *Final Order on Application*, the Council included a number of conditions
 27 specifically related to compliance with siting in the Natural Hazards Combining Zone (conditions
 28 IV.D.5 to IV.D.9), and these conditions would continue to apply to the amended facility.

29 ***SCCP Section XI, Goal III. Provide for the rational development and conservation of the***
 30 ***aggregate resources within the County.***

31 The Council addressed this goal in Section IV.D of the *Final Order on the Application*, concluding
 32 that the goal does not apply to the facility because Golden Hills would not develop aggregate
 33 resources, but rather would purchase aggregate from local operations that already have
 34 applicable permits in accordance with Sherman County standards. RFA No. 3 would not change
 35 this finding.

36 ***SCCP Section XI, Goal IV. To provide a detailed investigation of the County's groundwater***
 37 ***resources.***

38 This Council addressed this goal in Section IV.D of the *Final Order on the Application*, finding
 39 that the facility would only use a small amount of groundwater, no more than 5,000 gallons per

³⁰ Final Order on Application, starting on page 43.

1 day, specifically to serve the operations and maintenance facility. Groundwater wells that use
2 under 5,000 gallons per day do not require a new water right from Oregon Water Resources
3 Department. The Department further discusses the amended facility's compliance with Oregon
4 water rights statutes in Section IV.D.3 *Water Rights* of this revised proposed order.

5 ***SCCP Section XI, Goal V. To maintain the multiple use management concept on Bureau of***
6 ***Land Management Lands within Sherman County.***

7 This goal does not apply as the facility would not be located on Bureau of Land Management
8 land.

9 ***SCCP Section XI, Goal VI. Encourage preservation of the rural nature [of] the Sherman***
10 ***County landscape.***

11 ***Goal VI, Policy VII.***

12 *Trees should be considered an important feature of the landscape and therefore the*
13 *County Court shall encourage the retention of this resource when practical*

14 The Council addressed this goal in Section IV.D of the *Final Order on the Application*, finding
15 that the facility would comply with the policy statement because it is located in a largely tree-
16 less plain currently consisting mostly of agricultural operations, and that development of the
17 facility would not require removal of any trees. The amended facility would maintain the same
18 micrositing turbine corridors. The two new areas of expanded site boundary to accommodate
19 short sections of 230 kV transmission line would be located on EFU land currently in farming
20 production and would not be expected to impact any trees.

21 ***SCCP Section XI, Goal VII. Encourage preservation of fish and wildlife habitat in the***
22 ***County.***

23 ***SCCP Section XI, Goal VIII. Encourage the diversity of plant and animal species within the***
24 ***County.***

25 The Council addressed these goals in Section IV.D of the *Final Order on the Application*, finding
26 that the facility is compatible with this goal and associated policies. The Department addresses
27 RFA No. 3's compliance with the Council's Fish and Wildlife Habitat standard and the Council's
28 Threatened and Endangered Species standard elsewhere in this revised proposed order; as
29 discussed in those sections, the Department recommends that the facility, as amended, would
30 maintain compliance with both standards. Existing site certificate conditions would provide for
31 the protection of fish and wildlife habitat and threatened and endangered species, and would
32 continue to apply to the amended facility.

33 ***SCCP Section XII. Social Characteristics***

34 ***SCCP Section XII, Goal I. To improve or maintain the current level of social services***
35 ***available with the County and to assure the provision of public facilities consistent with***
36 ***the intensity of land use.***

37 ***Goal I, Policy I.***

1 *The County Court shall encourage the location of industries, businesses and commercial*
2 *services to diversify activities within the County consistent with the desired population*
3 *growth and other goals and policies.*

4 ***Goal I, Policy IX.***

5 *The continuing loss of economic opportunities for residents of the County is of great*
6 *concern to the residents. The reduction of need for agricultural based jobs due to*
7 *improved farming technology and practices, the inability to keep families employed or*
8 *offer employment opportunities to attract new citizens or the children of existing*
9 *residents results in a stagnant or declining population. It is a matter of great urgency*
10 *that the Court gives increased consideration to land use applications, which will increase*
11 *economic diversity and employment opportunities. This increased consideration shall not*
12 *be made to the detriment of existing residential structures. This consideration should*
13 *focus on long-term job creation and should not be used as a means to allow residential*
14 *and commercial uses to locate outside urban growth and rural service center*
15 *(communities) boundaries.*

16 The Council addressed this goal in Section IV.D of the *Final Order on the Application*, finding the
17 facility to be consistent with Goal I, as well as Policy I and Policy IX. The facility, as amended,
18 would not change these findings. The Department has addressed the Council’s Public Services
19 standard in Section IV.A.13 of this revised proposed order, and with one additional condition,
20 recommends the Council find the facility, as amended, adequately addresses issues related to
21 public services. The amended facility would also provide additional economic opportunity for
22 landowners by providing a revenue stream diversification from farming. The certificate holder
23 states that the amendments as part of RFA No. 3 would not change the previously-estimated
24 workforce needs during construction and operation, approximately 10 to 15 employees during
25 operation, and up to 175 workers during the peak construction periods.

26 ***Goal I, Policy X. Transportation Planning Policies***

27 ***A. The Transportation System Plan and Land Use Review Policies***

- 28 1. *All development proposals, plan amendments, or zone changes shall conform to*
29 *the adopted Transportation System Plan.*
- 30 2. *Operation, maintenance, repair, and preservation of existing transportation*
31 *facilities shall be allowed without land use review, except where specifically*
32 *regulated.*

33 ***B. Local-State Coordination Policies***

- 34 1. *The County shall provide notice to ODOT of land use applications and*
35 *development permits for properties that have direct frontage or direct access*
36 *onto a State highway. Information that should be conveyed to reviewers includes*
37 *project location, proposed land use action, and location of project access points.*

1 C. *Protection of Transportation Facilities Policies*

2 1. *The County shall protect the function of existing and planned roadways as*
3 *identified in the Transportation System Plan.*

4 2. *The County shall include a consideration of a proposal's impact on existing or*
5 *planned transportation facilities in all land use decisions.*

6 The Council addressed this goal in Section IV.D of the *Final Order on the Application*, and found
7 the facility to be in compliance with the policy. RFA No. 3 would not change the facility's
8 compliance with the transportation planning policies. All existing site certificate conditions
9 would continue to apply to the facility, as amended, including conditions related to reducing
10 impacts to transportation systems and local roadways (conditions V.C.10 to V.C.13, and
11 conditions IV.D.17 to IV.D.20).

12 ***SCCP Section XII, Goal II. To protect historical, cultural and archeological resources from***
13 ***encroachment by incompatible land uses and vandalism.***

14 ***Goal II, Policy XI.***

15 *The following areas and structures shall be considered historically, archaeologically, or*
16 *culturally significant: all archeological sites; the Sherman County Courthouse; portions of*
17 *the Old Oregon Trail which are visible and pass over rangeland; and the old Union Pacific*
18 *Railroad bed through DeMoss Park.*

19 ***Goal II, Policy XII.***

20 *The County Court shall encourage the preservation of these archaeologically or culturally*
21 *significant areas. Landowners will be encouraged to provide long-term protection to*
22 *these areas.*

23 The Council addressed this goal in Section IV.D of the *Final Order on the Application*, and found
24 the facility to be in compliance with the goal and relevant policies. In Section IV.A.11 of this
25 revised proposed order, the Department has assessed the proposed amended facility's
26 compliance with the Council's Historic, Cultural, and Archaeological Resources standard and
27 recommends the Council continue to find the existing conditions currently imposed in the site
28 certificate are adequate to address issues related to the standard. As described in that section,
29 the certificate holder conducted field surveys for the new area to be added to the site boundary
30 as part of RFA No. 3. The surveys did not discover any new archaeological, historical, or cultural
31 resources. Existing site certificate conditions related to the protection of historic, cultural, and
32 archaeological resources would continue to apply to the facility, as amended. These are
33 conditions V.B.1 to V.B.10, and amongst other measures, including for the protection of Oregon
34 Trail segments, as well as unanticipated discoveries of resources.

35 ***SCCP Section XIV. Economics***

36 ***SCCP Section XIV, Goal I. Diversify the economic base of the County and maintain the***
37 ***viability of the agricultural sector.***

38 The Council addressed this goal in Section IV.D of the *Final Order on the Application*, and found
39 that the facility would be in compliance with the goal as it would diversify the economic base of

1 the county by providing nonagriculture employment and investment, while also being
2 compatible with surrounding properties devoted to farm use. The amended facility would not
3 change this finding.

4 ***SCCP Section XV. Energy***

5 ***SCCP Section XV, Goal I. Conserve energy resources.***

6 ***Goal I, Policy I.***

7 *Cooperate with public agencies and private individuals in the use and development of*
8 *renewable resources.*

9 The Council addressed these goals in Section IV.D of the *Final Order on the Application*, finding
10 the facility in compliance with the goal and policy, as the facility is a renewable energy
11 development project. The amended facility would maintain compliance with this goal and
12 policy.

13 ***SCCP Section XVI. Land Use***

14 ***SCCP Section XVI, Goal I. To provide an orderly and efficient use of the lands within***
15 ***Sherman County.***

16 ***Goal I, Policy IV.***

17 *Commercial businesses, except those related to agricultural uses, should be located*
18 *within the incorporated cities or within areas served by the Biggs or Kent special service*
19 *districts.*

20 The Council addressed these goals in Section IV.D of the *Final Order on the Application*. The
21 Council found the facility to be in compliance with the goal, and found that the facility is in
22 compliance with the policy as commercial utility facilities such as Golden Hills are conditionally
23 allowable in the EFU zone. The amended facility would not change this finding and would
24 maintain compliance with the goal and policy.

25 ***Ordinance No. 39-2007 – Setback Ordinance for Wind Power Generation Siting***

26 Sherman County Ordinance 39-2007 establishes setback requirements for wind power turbines
27 in Sherman County. The ordinance also encourages wind power facility developers to negotiate
28 setback distances with neighboring non-project property owners to find mutually-agreeable
29 solutions. If the solution cannot be reached, the setback requirements of the ordinance would
30 apply. The ordinance establishes setback requirements for wind turbines from non-project
31 property lines, from pre-existing wind turbines, and from incorporated cities in Sherman
32 County.

33 The Council addressed the Sherman County setback ordinance in the *Final Order on*
34 *Amendment No. 1*, and in order to ensure compliance with the ordinance, imposed site
35 certificate Condition IV.D.22, requiring the certificate holder to demonstrate that the final
36 location of all turbines within the micrositing corridors will satisfy the setback requirements of
37 the ordinance, unless the Council or ODOE approve a variance to the setback or the certificate
38 holder has negotiated a setback agreement with an affected adjacent property owner. As

1 described above, in a comment letter on RFA No. 3, Sherman County requested that the
 2 setback ordinance apply to any changes in turbine locations and micrositing corridor locations
 3 to the amended facility. RFA No. 3 would not change the location of the micrositing corridors,
 4 and condition IV.D.22 would continue to apply to the facility, as amended.

5 As described in the findings presented here, and the Council’s previous determination of
 6 compliance with the Land Use standard, the Department recommends that the Council
 7 continue to find that the facility, as amended, complies with Sherman County’s applicable
 8 substantive criteria

9 **ORS 215.283(1)(c) and ORS 215.274 – Associated Transmission Lines Necessary for Public**
 10 **Service**

11 As described in Section I.B *Description of the Approved Facility* of the revised proposed order,
 12 the Council previously approved as a related and supporting facility to the energy facility a 230
 13 kV transmission line. As amended, the 230 kV transmission line alignment would be
 14 approximately 8-miles and would interconnect the facility substation to BPA’s transmission
 15 structure north of the Klondike Substation. As described in Section II.A, *Description of the*
 16 *Proposed Amendment* of the revised proposed order, there are two segments of 230 kV
 17 transmission line that would be located in areas of new site boundary not previously considered
 18 by the Council. Both segments are very short; one segment would be contiguous to the existing
 19 site boundary and would extend to the existing Hay Canyon 230 kV transmission line southeast
 20 of the Golden Hills facility. From there, Golden Hills would use the existing Hay Canyon
 21 transmission line and would not construct any new transmission structures to move power. At
 22 the northern end of the existing Hay Canyon transmission line, Golden Hills would need to
 23 construct approximately 700 feet of new 230 kV transmission line to connect to the BPA grid.³¹

24 Based upon 2013 legislation, the Department recommends the Council evaluate the 230 kV
 25 transmission line as a “utility necessary for public service”, a use permitted in EFU zoned land
 26 pursuant to ORS 215.283(c). If a utility facility necessary for public service is an associated
 27 transmission line as that term is defined in ORS 215.274 and ORS 469.300, the use may be
 28 established in EFU-zoned land as provided in ORS 215.274. ORS 469.300(3) defines an
 29 “associated transmission line” as a “new transmission lines constructed to connect an energy
 30 facility to the first point of junction of such transmission line or lines with either a power
 31 distribution system or an interconnected primary transmission system or both or to the
 32 Northwest Power Grid,” and that definition is incorporated by reference in ORS 215.274.
 33 Associated transmission lines reviewed under ORS 215.274 are a subset of the transmission
 34 lines that could be evaluated as utility facilities necessary for public service under ORS
 35 215.283(1)(c). Sherman County has not adopted local code provisions to implement ORS
 36 215.274. Therefore, the requirements of the statute apply directly to the facility, as amended,
 37 and are evaluated below.

38 *ORS 215.274(2) An associated transmission line is necessary for public service if an applicant*
 39 *for approval under ORS 215.213 (uses permitted in exclusive farm use zones in counties that*
 40 *adopted marginal lands system prior to 1993) (1)(c)(B) or 215.283 (uses permitted in*

³¹ RFA No. 3, Section 1.3.

1 *exclusive farm use zones in nonmarginal lands counties) (1)(c)(B) demonstrates to the*
2 *governing body of a county or its designee that the associated transmission line meets:*

3 *(a) At least one of the requirements listed in subsection (3) of this section; or*

4 *(b) The requirements described in subsection (4) of this section*

5 *ORS 215.274(3) The governing body of a county or its designee shall approve an application*
6 *under this section if an applicant demonstrates that the entire route of the associated*
7 *transmission line meets at least one of the following requirements:*

8 *(a) The associated transmission line is not located on high value farmland, as defined in*
9 *ORS [195.300 \(Definitions for ORS 195.300 to 195.336\)](#), or on arable land;*

10 ORS 215.274(3)(a) requires approval of the associated transmission line if the entire route is
11 located on non-high value farmland or on nonarable land. High value farmland is defined in ORS
12 195.300. As explained in the RFA, the certificate holder asserts that most of the 230 kV
13 transmission line route is located on high value farmland. Therefore, the 230 kV transmission
14 line would not satisfy this requirement.

15 *(b) The associated transmission line is co-located with an existing transmission line;*

16 ORS 215.274(3)(b) requires approval of the associated transmission line if the entire route is co-
17 located with an existing transmission line. The 230 kV transmission line, as amended, would be
18 an 8-mile alignment connecting the energy facility to the grid. In the RFA, the certificate holder
19 explains that while a segment of the 230 kV transmission line would be co-located with the
20 existing Hay Canyon transmission line, the alignment would only be co-located for a portion (3
21 miles) of the alignment and not the entire alignment. Therefore, the 230 kV transmission line
22 would not satisfy this requirement.

23 *(c) The associated transmission line parallels an existing transmission line corridor with*
24 *the minimum separation necessary for safety; or*

25 ORS 215.274(3)(c) requires approval of the associated transmission line if the entire route
26 parallels an existing transmission line corridor. As explained in the RFA, the alignment of the
27 230 kV transmission line would parallel an existing transmission line corridor for a 700-foot
28 segment north of the Klondike Substation to the BPA grid-interconnection point. The remaining
29 segments of the transmission line alignment would not be located parallel to an existing
30 transmission line corridor. Therefore, the 230 kV transmission line would not satisfy this
31 requirement.

32 *(d) The associated transmission line is located within an existing right-of-way for a linear*
33 *facility, such as a transmission line, road or railroad, that is located above the surface*
34 *of the ground.*

35 ORS 215.274(3)(d) requires approval of the associated transmission line if the entire route is
36 located within an existing above-ground linear facility right-of-way. As explained in the
37 evaluation of ORS 215.274(3)(c), a 700-foot segment of the 230 kV transmission line alignment
38 would parallel an existing transmission line corridor; however, none of the transmission line
39 alignment would be located within an existing above-ground linear facility right-of-way.
40 Therefore, the 230 kV transmission line would not satisfy this requirement.

1
2 Because the transmission line would not satisfy any of the subsection (3) requirements, an
3 evaluation of the subsection (4) factors is necessary.

4
5 *ORS 215.274(4)(a) Except as provided in subsection (3) of this section, the governing body of*
6 *a county or its designee shall approve an application under this section if, after an evaluation*
7 *of reasonable alternatives, the applicant demonstrates that the entire route of the*
8 *associated transmission line meets, subject to paragraphs (b) and (c) of this subsection, two*
9 *or more of the following factors:*

10
11 The certificate holder addresses the factors for determining that the facility, as amended, must
12 be sited in high value farmland on arable land and contends that while the 230 kV transmission
13 line would not satisfy the requirements of ORS 215.274(3), the 230 kV transmission line would
14 satisfy the requirements of ORS 215.274(4) consistent with ORS 215.275(2). The Department's
15 evaluation of the certificate holder's analysis is presented below.

16
17 *(A) Technical and engineering feasibility;*

18
19 The certificate holder evaluated the technical and engineering feasibility of alternative
20 transmission routes on non high-value farmland or nonarable land prior to the route selected
21 for the 230 kV transmission line. Based on Attachment 1 of the Third Supplement to the RFA,
22 the certificate holder states that the agricultural land within the site boundary and the
23 surrounding area contains predominately Class II and III soils, with some Class IV and VII soils.
24 Pursuant to ORS 215.710, areas with Class I and II soils are considered high-value farmland.

25
26 As explained above, the alignment of the proposed 8-mile 230 kV transmission line includes
27 approximately 5 miles of new transmission line and 3 miles that would be co-located on the
28 existing 230-kV Hay Canyon transmission line. As presented in Attachment 1 of the Third
29 Supplement to the RFA, the new 230 kV transmission line segment would traverse some Class II
30 soils, but would predominately traverse Class III and Class VII soils not meeting the definition of
31 high-value farmland. Further, the certificate holder states that geographic limitations including
32 gullies, ravines and steep slopes within the area surrounding the 5-mile segment of new 230 kV
33 transmission line limit the technical and engineering feasibility of reasonable alternatives. The
34 certificate holder explains that the new 230 kV transmission line segment meets the technical
35 and engineering feasibility factor because it is located on flat portions of the site, and
36 represents the straightest route, with the shortest line, and least impacts.

37
38 As presented in Attachment 1 of the Third Supplement to the RFA, the 3-mile 230 kV
39 transmission line segment to be co-located with the existing Hay Canyon transmission line
40 would be predominately located on Class II soils. However, because the segment would be co-
41 located and would utilize existing transmission structures, there would be no new permanent
42 impacts to high-value farmland or arable soils from this segment of the transmission line.
43 Because the certificate holder proposes to co-locate a segment of the 230 kV transmission line
44 in order to connect to the regional grid through distribution to an interconnection point near

1 the existing Klondike Substation, the certificate holder states that there are not reasonable
2 alternatives that could achieve these goals.

3
4 *(B) The associated transmission line is locationally dependent because the associated*
5 *transmission line must cross high-value farmland, as defined in ORS 195.300*
6 *(Definitions for ORS 195.300 to 195.336), or arable land to achieve a reasonably*
7 *direct route or to meet unique geographical needs that cannot be satisfied on other*
8 *lands;*

9
10 The evaluation of reasonable alternatives pursuant to ORS 215.274(4)(a) requires that the
11 certificate holder consider reasonable routing alternatives and show that the facility, as
12 amended, must be sited on high value farmland or arable land in order to achieve a reasonably
13 direct route or meet unique geographical needs (referred to as “locationally dependent”).

14
15 The transmission line is needed to interconnect the facility, as amended, to the regional electric
16 grid. The interconnection points identified by the certificate holder include the facility’s central
17 substation and an interconnection point near the existing Klondike Substation. The certificate
18 holder asserts that the 230 kV transmission line was sited to achieve a reasonably direct route
19 to the BPA interconnection point near the Klondike Substation while also utilizing existing Hay
20 Canyon transmission line structures for co-location.

21
22 As presented in Attachment 1 of the Third Supplement to the RFA, the new 230 kV transmission
23 line segment would traverse some Class II soils, but would predominately traverse Class III and
24 Class VII soils, and represents the shortest route from the facility’s substation to the
25 interconnection point with the Hay Canyon line. As explained above, the existing Hay Canyon
26 transmission line is predominately located within Class II soils, or high-value farmland.
27 However, because the 230 kV transmission would be co-located, the transmission line would
28 not result in new permanent impacts for the co-located segment. Moreover, because any route
29 would impact high-value and arable land, and the fact that the proposed line offers the most
30 direct route and utilizes existing infrastructure, the certificate holder asserts that there is no
31 reasonable alternative to consider under this factor.

32
33 *(C) Lack of an available existing right-of-way for a linear facility, such as a transmission*
34 *line, road or railroad, that is located above the surface of the ground;*

35
36 In the RFA, the certificate holder states that due to topographical constraints of large lot sizes
37 and intermittent steep ravines within the site boundary and limited existing linear
38 infrastructure, existing above-ground linear facility rights-of-way are not available for routing of
39 the transmission line. The certificate holder explains that any alternative route that would
40 utilize existing road right-of-ways would significantly increase the length of the line, require
41 acquisition of numerous new land rights, increase construction costs, and potentially interfere
42 with existing utility infrastructure already located within the right-of-way. The certificate holder
43 further explains that existing utility rights-of-way would be utilized to the maximum extent

1 practicable by co-locating the 230 kV transmission line on the existing Hay Canyon transmission
2 line.

3
4 *(D) Public health and safety; or*

5
6 The certificate holder explains that risks to public health and safety from the 230 kV
7 transmission line would be minimized by limiting the length of transmission line for the facility,
8 as amended, and thereby reducing overall potential exposure to magnetic fields or shock;
9 reducing the new transmission line corridor from 11 to 5 miles; consolidating the area
10 necessary for energy transmission use by co-locating a portion of the transmission line; and
11 locating the transmission line away from populated areas.

12
13 *(E) Other requirements of state or federal agencies*

14
15 The RFA includes an evaluation of the ability of the certificate holder to comply with applicable
16 state and federal requirements. The revised proposed order presents the Department's analysis
17 and recommendation to Council that the certificate holder has demonstrated the ability to
18 satisfy applicable state and federal requirements. Moreover, the certificate holder states and
19 the Department agrees that the existing site certificate and amended site certificate, if
20 approved, would ensure that the certificate holder complies with all applicable state and
21 federal requirements.

22
23 *For the reasons provided above, the Department recommends that the Council find that after an*
24 *evaluation of reasonable alternatives, the certificate holder has demonstrated that the entire*
25 *route of the 230kV transmission line meets two or more of the relevant factors in subsection (4).*

26
27 *ORS 215.274(4)(b) The applicant shall present findings to the governing body of the county*
28 *or its designee on how the applicant will mitigate and minimize the impacts, if any, of the*
29 *associated transmission line on surrounding lands devoted to farm use in order to prevent a*
30 *significant change in accepted farm practices or a significant increase in the cost of farm*
31 *practices on the surrounding farmland.*

32
33 The certificate holder evaluated accepted farm practices within the surrounding area in ASC
34 Exhibit K and explained that the evaluation was based on interviews with and surveys
35 distributed to owners and farm operators that could be affected by the facility. The results of
36 the evaluation identified that lands within the site boundary and surrounding area were
37 predominantly used for dryland wheat farming with regular fallow intervals. As explained in
38 ASC Exhibit K, typical farm practices for dryland wheat farming consist of land preparation in the
39 spring, such as plowing, aerial fertilizing, sowing, followed by mechanical weeding with rod
40 weeders and hand removal of weeds where rod weeders cannot reach, and harvesting. The
41 certificate holder explained in ASK Exhibit K that soil preparations for winter wheat can involve
42 burning stubble, spreading straw or crop residue, and reducing tall stubble by discing or
43 harrowing. Farming in this area according to survey respondents occurs between March and

1 October. The certificate holder stated in ASC Exhibit K that while aerial spraying is known to occur in
2 the area, none of the surveyed farmers mentioned aerial spraying.

3
4 As explained in the Third Supplement to the RFA, the certificate holder conducted desktop and
5 on-site vegetation surveys to conclude that the dryland wheat farming practices within the site
6 boundary and on surrounding lands has not significantly changed since the evaluation
7 conducted in 2007.

8
9 As previously described in the ASC, the certificate holder explains that the construction and
10 operation of the 230 kV transmission line could impact the above existing farming practices
11 within the site boundary. The certificate holder explains that the transmission line would be
12 sited at the edge of the wheat fields to promote local farming access and equipment
13 maneuverability and that impacts from transmission line structure installation would
14 permanently impact less than 1 acre of land. Additionally, compliance with existing site
15 certificate conditions IV.D.10, IV.E.4, IV.M.1 would minimize potential impacts to farming
16 practices by ensuring that aboveground transmission poles and junction boxes were placed
17 along property lines and public road rights-of-way, to the extent practicable, and require
18 implementation of a weed control plan, and require implementation of a Habitat Mitigation
19 and Revegetation Plan that would ensure lands temporarily affected by construction would be
20 restored to its original condition. For these reasons, the Department recommends that the
21 Council find that the certificate holder has selected a transmission line alignment that
22 minimizes impacts to accepted farming practices within the site boundary and surrounding
23 areas. For the same reasons, the Department recommends that the Council find that the
24 transmission line would not result in a significant change in accepted farming practices or a
25 significant increase in the cost of farm practices on the surrounding farmland.

26
27 *ORS 215.274(4)(c) The governing body of a county or its designee may consider costs*
28 *associated with any of the factors listed in paragraph (a) of this subsection, but*
29 *consideration of cost may not be the only consideration in determining whether the*
30 *associated transmission line is necessary for public service.*

31
32 In the evaluation of ORS 215.274(4)(a), the certificate holder did not substantively consider the
33 cost of land in the evaluation of potential transmission line routes. The certificate holder
34 expresses that because the majority of land in Sherman County is zoned EFU, that no
35 alternative location on non-EFU land exists and that the route was dependent on providing a
36 grid-interconnection point while minimizing impacts to EFU lands by using existing utility rights-
37 of-way.

38
39 As noted above, Sherman County has expressed no objection of the amendment and provided
40 no additional comment on the amendment request aside from noting that should any turbines
41 be located outside of previously approved corridors, that County Setback Ordinance #39-2007
42 would apply, including no comment on the transmission line compliance with ORS 215.283 and
43 ORS 215.274.

1 The Council has also included clear and objective conditions to reduce the impact of the facility
2 to surrounding farmland.³² These conditions would continue to apply to the amended facility.
3 Based on the analysis presented above, and compliance with existing site certificate conditions,
4 the Department recommends that the Council find that the 230 kV transmission line is
5 necessary for public service pursuant to the factors set forth in ORS 215.274(4).

6 **ORS 215.283(1)(c) and ORS 215.275**

7 The certificate holder asserts that the 230 kV transmission line meets the definition of an
8 “associated transmission line” at ORS 215.274 and 469.300 and the Department agrees with
9 that assessment. However, in the original *Final Order on Application*, the Council concluded that
10 the transmission lines and substations are “utility facilities necessary for public service,” and
11 therefore are allowed on EFU land under ORS 215.283(1)(c), subject to the provisions of ORS
12 215.275.³³ Due to 2013 legislation, the requirements of ORS 215.275 no longer apply if the 230
13 kV transmission line is an associated transmission line. However, in the event Council were to
14 find that the transmission line is not an associated transmission line and therefore ORS 215.275
15 applies instead of ORS 215.274, the certificate holder provided a site-specific analysis of the
16 additional transmission line segment to be added to the site boundary north of the Hay Canyon
17 transmission line to connect to the BPA grid. This analysis is considered below.

18 *ORS 215.275 - Utility facilities necessary for public service.*

19 *(1) A utility facility established under ORS 215.213 (Uses permitted in exclusive farm use*
20 *zones in counties that adopted marginal lands system prior to 1993) (1)(c)(A) or 215.283*
21 *(Uses permitted in exclusive farm use zones in nonmarginal lands counties) (1)(c)(A) is*
22 *necessary for public service if the facility must be sited in an exclusive farm use zone in*
23 *order to provide the service.*

24 *(2) To demonstrate that a utility facility is necessary, an applicant for approval under ORS*
25 *215.213 (Uses permitted in exclusive farm use zones in counties that adopted marginal*
26 *lands system prior to 1993) (1)(c)(A) or 215.283 (Uses permitted in exclusive farm use*
27 *zones in nonmarginal lands counties) (1)(c)(A) must show that reasonable alternatives*
28 *have been considered and that the facility must be sited in an exclusive farm use zone*
29 *due to one or more of the following factors:*

30 *(a) Technical and engineering feasibility;*

31 *(b) The proposed facility is locationally dependent. A utility facility is locationally*
32 *dependent if it must cross land in one or more areas zoned for exclusive farm use in*
33 *order to achieve a reasonably direct route or to meet unique geographical needs that*
34 *cannot be satisfied on other lands;*

³² Specifically, existing Land Use Conditions IV.D.3, IV.D.10, IV.D.11, IV.D.12, IV.D.13, and IV.D.16 would mitigate or minimize the impacts of the facility on surrounding farming uses. Other existing site certificate conditions would also mitigate or minimize impacts to surrounding farming uses, including conditions related to the Soil Protection standard.

³³ Sherman County has not adopted local code provisions to implement ORS 215.283(1)(c) and ORS 215.275. Therefore, the statutes are applied directly.

- 1 (c) *Lack of available urban and nonresource lands;*
- 2 (d) *Availability of existing rights of way;*
- 3 (e) *Public health and safety; and*
- 4 (f) *other requirements of state or federal agencies.*

5 The certificate holder states that the transmission line segments are a utility facility necessary
6 for public service and therefore is allowed in EFU zoned land to provide the service. To
7 demonstrate that the utility facility is necessary, the certificate holder responded to each
8 provision of subsection (2).³⁴

- 9 (a) *Technical and engineering feasibility;*

10 The certificate holder states that it is not feasible or technically possible to connect to and
11 distribute power via the BPA public grid without a transmission line that crosses EFU land, and
12 therefore, this factor applies to the analysis. The entire facility would be located within EFU
13 land, including the short segments of transmission proposed to be constructed within the new
14 site boundary areas.

- 15 (b) *The proposed facility is locationally dependent. A utility facility is locationally*
16 *dependent if it must cross land in one or more areas zoned for exclusive farm use in*
17 *order to achieve a reasonably direct route or to meet unique geographical needs that*
18 *cannot be satisfied on other lands;*

19 The certificate holder states that the transmission segment must cross EFU land to connect to
20 the BPA grid system in order to distribute power to customers, and there are no other non-EFU
21 zoned lands available to meet this need.

- 22 (c) *Lack of available urban and nonresource lands;*

23 The transmission segment, as described by the certificate holder, must be located in EFU land
24 to connect to the BPA grid as there is no non-EFU land outside of existing urban growth
25 boundaries in northern Sherman County, where the facility is to be located. There are no urban
26 or nonresource lands between the wind turbines and a connection point to the BPA grid that
27 could be used to distribute power. The certificate holder notes that the transmission segment
28 would be placed near an area already used for public utilities and on the margins of cultivated
29 farms to reduce conflicts with farm operations.

- 30 (d) *Availability of existing rights of way;*

31 The Golden Hills facility would use an existing transmission line, Hay Canyon transmission line,
32 for part of its connection to the BPA grid. The two new segments of transmission are necessary
33 to connect the facility to the Hay Canyon line, and then to connect to the BPA grid. As such, by
34 using the existing Hay Canyon transmission line right of way, Golden Hills is reducing new
35 disturbance on EFU land.

- 36 (e) *Public health and safety; and*

³⁴ ORS 215.275 analysis provided in Golden Hills Information Request Response, June 3, 2016, Attachment 1.

1 The certificate holder argues that the transmission line segment is adjacent to existing electrical
2 infrastructure, specifically the BPA transmission grid and the existing Klondike substation. In
3 this way, Golden Hills states that it is reducing health and safety risks by consolidating the area
4 necessary for electrical transmission.

5 *(f) other requirements of state or federal agencies.*

6 The certificate holder notes that it is and would be in compliance with requirements of other
7 state and federal agencies.

8 The Department agrees with the certificate holder's evaluation of factors and recommends that
9 the Council find that the certificate has shown that the facility must be sited in an EFU zone due
10 to one or more of the relevant factors.

11 *(3) Costs associated with any of the factors listed in subsection (2) of this section may be*
12 *considered, but cost alone may not be the only consideration in determining that a utility*
13 *facility is necessary for public service. Land costs shall not be included when considering*
14 *alternative locations for substantially similar utility facilities. The Land Conservation and*
15 *Development Commission shall determine by rule how land costs may be considered*
16 *when evaluating the siting of utility facilities that are not substantially similar.*

17 Golden Hills describes that land costs were not a significant factor in consideration of the
18 location of the transmission line segment. Rather, location was determined based on providing
19 a direct connection to the BPA grid and using existing rights of way to minimize impacts to
20 resource lands.

21 *(4) The owner of a utility facility approved under ORS 215.213 (Uses permitted in exclusive*
22 *farm use zones in counties that adopted marginal lands system prior to 1993) (1)(c)(A) or*
23 *215.283 (Uses permitted in exclusive farm use zones in nonmarginal lands counties)*
24 *(1)(c)(A) shall be responsible for restoring, as nearly as possible, to its former condition*
25 *any agricultural land and associated improvements that are damaged or otherwise*
26 *disturbed by the siting, maintenance, repair or reconstruction of the facility. Nothing in*
27 *this section shall prevent the owner of the utility facility from requiring a bond or other*
28 *security from a contractor or otherwise imposing on a contractor the responsibility for*
29 *restoration.*

30 The certificate holder is responsible for returning lands temporarily impacted by construction to
31 original condition. This is required by site certificate Condition VII.11, which will continue to
32 apply to the amended facility.

33 *(5) The governing body of the county or its designee shall impose clear and objective*
34 *conditions on an application for utility facility siting under ORS 215.213 (Uses permitted*
35 *in exclusive farm use zones in counties that adopted marginal lands system prior to*
36 *1993) (1)(c)(A) or 215.283 (Uses permitted in exclusive farm use zones in nonmarginal*
37 *lands counties) (1)(c)(A) to mitigate and minimize the impacts of the proposed facility, if*
38 *any, on surrounding lands devoted to farm use in order to prevent a significant change in*
39 *accepted farm practices or a significant increase in the cost of farm practices on the*
40 *surrounding farmlands.*

1 The transmission line segment, as stated by the certificate holder, would permanently impact ½
2 acre, the area is located directly adjacent to existing electrical infrastructure, and local
3 landowners would be compensated for the loss of land for agricultural production. The
4 transmission line segment would be located along the margins of cultivated farm areas.
5 Additionally, the Council has included conditions in the existing site certificate to mitigate and
6 minimize the impacts of the facility on surrounding lands.³⁵All existing conditions would apply
7 to the facility, as amended, including the new transmission segments.

8 In the event Council were to find that ORS 215.275 applied instead of ORS 215.274, the
9 Department recommends that the Council find that the new transmission line segments is a
10 utility facility necessary for public service under ORS 215.283(1)(c), and is allowed in EFU zoned
11 land per the analysis provided.

12 **Conclusion of Law**

13 Based on reasons addressed above, and subject to compliance with the existing site certificate
14 conditions, the Department recommends that the Council find that the facility, as amended,
15 satisfies the Council's Land Use standard.

16 **IV.A.6 Protected Areas: OAR 345-022-0040**

17 *(1) Except as provided in sections (2) and (3), the Council shall not issue a site certificate for*
18 *a proposed facility located in the areas listed below. To issue a site certificate for a*
19 *proposed facility located outside the areas listed below, the Council must find that,*
20 *taking into account mitigation, the design, construction and operation of the facility are*
21 *not likely to result in significant adverse impact to the areas listed below. References in*
22 *this rule to protected areas designated under federal or state statutes or regulations are*
23 *to the designations in effect as of May 11, 2007:*

24 *(a) National parks, including but not limited to Crater Lake National Park and Fort*
25 *Clatsop National Memorial;*

26 *(b) National monuments, including but not limited to John Day Fossil Bed National*
27 *Monument, Newberry National Volcanic Monument and Oregon Caves National*
28 *Monument;*

29 *(c) Wilderness areas established pursuant to The Wilderness Act, 16 U.S.C. 1131 et seq.*
30 *and areas recommended for designation as wilderness areas pursuant to 43 U.S.C.*
31 *1782;*

32 *(d) National and state wildlife refuges, including but not limited to Ankeny, Bandon*
33 *Marsh, Baskett Slough, Bear Valley, Cape Meares, Cold Springs, Deer Flat, Hart*
34 *Mountain, Julia Butler Hansen, Klamath Forest, Lewis and Clark, Lower Klamath,*

³⁵ As noted, existing Land Use conditions IV.D.3, IV.D.10, IV.D.11, IV.D.12, IV.D.13, and IV.D.16 would mitigate or minimize the impacts of the facility on surrounding farming uses. Other existing site certificate conditions would also mitigate or minimize impacts to surrounding farming uses, including conditions related to the Soil Protection standard.

- 1 *Malheur, McKay Creek, Oregon Islands, Sheldon, Three Arch Rocks, Umatilla, Upper*
2 *Klamath, and William L. Finley;*
- 3 *(e) National coordination areas, including but not limited to Government Island, Ochoco*
4 *and Summer Lake;*
- 5 *(f) National and state fish hatcheries, including but not limited to Eagle Creek and*
6 *Warm Springs;*
- 7 *(g) National recreation and scenic areas, including but not limited to Oregon Dunes*
8 *National Recreation Area, Hell's Canyon National Recreation Area, and the Oregon*
9 *Cascades Recreation Area, and Columbia River Gorge National Scenic Area;*
- 10 *(h) State parks and waysides as listed by the Oregon Department of Parks and*
11 *Recreation and the Willamette River Greenway;*
- 12 *(i) State natural heritage areas listed in the Oregon Register of Natural Heritage Areas*
13 *pursuant to ORS 273.581;*
- 14 *(j) State estuarine sanctuaries, including but not limited to South Slough Estuarine*
15 *Sanctuary, OAR Chapter 142;*
- 16 *(k) Scenic waterways designated pursuant to ORS 390.826, wild or scenic rivers*
17 *designated pursuant to 16 U.S.C. 1271 et seq., and those waterways and rivers listed*
18 *as potentials for designation;*
- 19 *(l) Experimental areas established by the Rangeland Resources Program, College of*
20 *Agriculture, Oregon State University: the Prineville site, the Burns (Squaw Butte) site,*
21 *the Starkey site and the Union site;*
- 22 *(m) Agricultural experimental stations established by the College of Agriculture, Oregon*
23 *State University, including but not limited to: Coastal Oregon Marine Experiment*
24 *Station, Astoria Mid-Columbia Agriculture Research and Extension Center, Hood*
25 *River Agriculture Research and Extension Center, Hermiston Columbia Basin*
26 *Agriculture Research Center, Pendleton Columbia Basin Agriculture Research Center,*
27 *Moro North Willamette Research and Extension Center, Aurora East Oregon*
28 *Agriculture Research Center, Union Malheur Experiment Station, Ontario Eastern*
29 *Oregon Agriculture Research Center, Burns Eastern Oregon Agriculture Research*
30 *Center, Squaw Butte Central Oregon Experiment Station, Madras Central Oregon*
31 *Experiment Station, Powell Butte Central Oregon Experiment Station, Redmond*
32 *Central Station, Corvallis Coastal Oregon Marine Experiment Station, Newport*
33 *Southern Oregon Experiment Station, Medford Klamath Experiment Station, Klamath*
34 *Falls;*
- 35 *(n) Research forests established by the College of Forestry, Oregon State University,*
36 *including but not limited to McDonald Forest, Paul M. Dunn Forest, the Blodgett*
37 *Tract in Columbia County, the Spaulding Tract in the Mary's Peak area and the*
38 *Marchel Tract;*

1 (o) Bureau of Land Management areas of critical environmental concern, outstanding
2 natural areas and research natural areas;

3 (p) State wildlife areas and management areas identified in OAR chapter 635, Division 8.

4 ***

5 **Findings of Fact**

6 The Protected Areas standard requires the Council to find that, taking into account mitigation,
7 the design, construction and operation of a facility are not likely to result in significant adverse
8 impacts to any protected area as defined by OAR 345-022-0040.

9 The Council addressed the Protected Area standard in Section IV.F of the *Final Order on the*
10 *Application* and found that the proposed facility complied with the Protected Areas standard,
11 without any required conditions. During its review of the first and second amendment requests
12 to the site certificate to extend the construction deadlines, the Council determined that both
13 requests did not impact compliance with the Protected Areas standard and, therefore relied on
14 the analysis in the *Final Order on the Application*.

15 RFA No. 3 proposes changes to the facility design. The facility, as amended, would include 142
16 fewer wind turbines than the previously approved facility, reducing the number of turbines
17 from 267 to 125. The 125 proposed turbines may be taller than the previously approved
18 turbines, up to 518 feet in total height, from 420 feet. In addition, the amended facility would
19 remove approximately 2,800 acres from the site boundary and add approximately 122.5 acres
20 to account for the change in facility design (two short segments of 230 kV transmission line),
21 while reducing the total amount of overhead transmission line by approximately 48 percent,
22 mostly by removing the 500 kV transmission line that was previously approved as part of the
23 facility.

24 In RFA No. 3 the certificate holder evaluated the amended facility's continued compliance with
25 the Protected Areas standard, including potential impacts during facility construction and
26 operation regarding noise, increased traffic, water use, wastewater disposal, visual impacts of
27 facility structures or plumes, and visual impacts from air emissions. The analysis area is the area
28 within and extending 20 miles from the site boundary.

29 *Noise*

30 The nearest protected area within the analysis area is the Columbia Basin Agricultural Research
31 Center (Center), located 0.4-mile southwest of the site boundary. In the 2008 Addendum to the
32 ASC Exhibit L, the certificate holder estimated the maximum noise level from turbine operation
33 at the Center to be 33 dBA, which would be audible at low levels. Based on this evaluation, the
34 Council previously determined that noise associated with facility operation would not result in
35 significant adverse impacts at the Center, and would also not result in significant adverse noise
36 impacts at protected areas located farther from the site boundary (ranging in distance from 1
37 mile to 19.9 miles). The requested change in turbine design, increasing the blade-tip turbine
38 height from 420 to 518 feet, could result in differing noise levels at the nearest protected area
39 compared to the previously estimated 33 dBA maximum noise level. In RFA No. 3, the
40 certificate holder explains that a complete new noise analysis would be provided to the
41 Department prior to construction, in compliance with existing Condition VI.A.1.2 of the site

1 certificate, and would demonstrate that the maximum noise level at noise-sensitive properties
2 would not exceed DEQ's 50 dBA noise limit for new industrial sources. The Department notes
3 that noise-sensitive properties, as defined in OAR 345-035-0015(38), specifically excludes
4 properties used in agricultural activities.³⁶

5 The significance of potential noise impacts at identified protected areas is based on the
6 magnitude and likelihood of the impact on the affected human population or natural
7 resource.³⁷ The nearest protected area, the Center, is an agricultural experimental station
8 owned and operated by Oregon State University's College of Agricultural Sciences. Based upon
9 the Department's analysis, the Center is used for field research related to the production of
10 wheat and rotational crops. Any potential increase in operational noise from the facility, as
11 amended, would not be expected to result in a significant adverse impact to the agricultural
12 field research conducted at the Center, as the Center's purpose and function does not
13 represent a human population or natural resource that could be affected by facility-related
14 noise levels.

15 The next closest protected area is the Lower Deschutes Wildlife Area (LDWA), located
16 approximately 1.8 miles southwest of the site boundary.³⁸ The LDWA is managed by ODFW to
17 improve and/or maintain habitats for native and desired fish and wildlife species and to provide
18 wildlife oriented recreational opportunities to the public. Based on this function and purpose,
19 the LDWA could be affected if there were adverse noise levels from the facility that were
20 audible at LDWA.

21 As part of the original site certificate application, Golden Hills conducted a noise analysis using a
22 "generic" 1.5 MW turbine options to assess the proposed facility's potential impact on the
23 surrounding environment.³⁹ Based on that analysis, Council concluded in the *Final Order on the*

³⁶ Additionally, the DEQ noise regulations are not directly applicable to the Council's Protected Area standard.

³⁷ The Protected Areas standard requires the Council to find that, taking into account mitigation, the design, construction and operation of a facility are not likely to result in significant adverse impacts to any protected area as defined by OAR 345-022-0040. OAR 345-001-0010(53) defines "significant" as: "having an important consequence, either alone or in combination with other factors, based upon the magnitude and likelihood of the impact on the affected human population or natural resources, or on the importance of the natural resources affected, considering the context of the action or impact, its intensity and the degree to which possible impacts are caused by the proposed action. Nothing in this definition is intended to require a statistical analysis of the magnitude or likelihood of a particular impact."

³⁸ The *Final Order on the Application*, the Council considered potential facility impacts to Maryhill State Park in Washington. As shown in Table IV.F.1 in that order, Maryhill State Park is approximately 1 mile from the facility, as previously designed, across the Columbia River. Based upon the Department's review of RFA No. 3, the Department has concluded that non-Oregon state parks are not identified as protected areas subject to the Council's Protected Areas standard. Under OAR 345-022-0040(h), protected areas include "State parks and waysides as listed by the Oregon Department of Parks and Recreation and the Willamette River Greenway." Being in Washington, Maryhill State Park is not listed by the Oregon Department of Parks and Recreation and therefore would not qualify as a protected area under the Council's standard. However, even if Maryhill State Park was considered a protected area, the Council previously found that the Golden Hills facility would not cause a significant adverse impact to the park from noise or other impacts. The park is across the Columbia River and there are a number of other intervening development features including I-84, SR-14, railroad lines, existing transmission lines, and other features.

³⁹ ASC Exhibit X.

1 *Application* that the facility would not be audible at any protected area in the analysis area,
2 including the LDWA (except for the Center, as described above).

3 The Department notes that the certificate holder did not identify in RFA No. 3 the expected
4 noise volume of the turbines proposed to be included as part of the amended facility. The
5 proposed turbines would be larger and it is uncertain if the turbines would generate a higher
6 dBA noise level (per turbine) than the previously considered and approved facility design.
7 However, the overall noise levels generated by the amended facility may be less due to the
8 decrease in total number of turbines from 267 to 125.

9 The Department also notes that while the Council's Protected Areas standard does not
10 establish an applicable noise threshold, the noise level at the closest noise-sensitive property
11 located approximately 1,000-feet from the nearest turbine could not exceed 50 dBA, consistent
12 with DEQ's noise regulations. At a distance of 1.8-miles, noise levels from the amended facility
13 are expected to be less than 50 dBA due to noise attenuation associated with distance and
14 topographical screening between the facility and the LDWA. While LDWA is a protected area
15 under the Council's Protected Area standard, it is also an important recreational area that
16 offers opportunities such as boating, rafting, fishing and bird hunting. Operational noise levels
17 from the facility, as amended, are not expected to interfere with those activities. Moreover, in
18 its comment letter on RFA No. 3, ODFW did not raise any potential concerns related to facility
19 noise impacts at LDWA. Therefore, the Department recommends the Council find that the
20 facility, as amended, is unlikely to cause a significant adverse noise impact to the LDWA.

21 According to the *Final Order on the Application*, the next closest protected area to the facility
22 would be the Deschutes Federal Wild and Scenic River, which is approximately 2.3 miles away,
23 and Deschutes State Scenic Waterway (Pelton Dam to Columbia River), approximately 2.4 miles
24 away. Considering that the facility is not expected to cause a significant adverse noise impact at
25 the LDWA (approximately 1.8 miles from the facility site boundary), it is also not expected that
26 the facility would cause a significant adverse noise impact to these protected areas located
27 farther from the facility.

28 While facility construction noise could be audible at some protected areas, construction would
29 be temporary and short-duration, and therefore noise generated during construction activities
30 would be unlikely to cause a significant adverse impact to any protected area. In addition,
31 existing site certificate Condition VI.A.1.1 would reduce noise impacts during construction by
32 requiring the use of exhaust mufflers on combustion engine-powered equipment and limiting
33 the noisiest operation of heavy construction equipment to daylight hours.

34 Based on the findings presented here, the Department recommends the Council find that
35 construction and operation of the facility, as amended, would not result in significant adverse
36 noise impacts to protected areas within the analysis area

37 *Traffic*

38 The Council found in the *Final Order on the Application*, facility-related road use during
39 construction and operation would not result in a significant adverse impact to protected areas.
40 Although the individual turbines proposed under RFA No. 3 would be larger and require more
41 concrete to erect, the certificate holder states that the fewer number of turbines would result

1 in a net decrease in truck traffic during construction of approximately 30 percent below the
2 previous estimate.⁴⁰ The requested change in facility design would result in lesser temporary
3 traffic related impacts during construction. The requested amendments would not change or
4 increase facility-related traffic impacts. As explained in the *Final Order on the Application*,
5 facility operation would result in daily vehicle trips from 10 to 15 employees and would have
6 minimal impacts on protected areas. Therefore, the Department recommends the Council find
7 that construction and operation of the facility, as amended, would not result in significant
8 adverse traffic impacts to protected areas within the analysis area.

9 *Water Use and Wastewater Disposal*

10 In the *Final Order on the Application*, the Council found that the facility would not have a
11 significant adverse impact to protected areas from water use and wastewater disposal. The
12 certificate holder states that the smaller number of turbines would result in a net decrease in
13 truck traffic and use of roads during construction, and, as a result, water use for dust
14 suppression would be similar to or less than what would have been required for the previously
15 approved facility. Additionally, the certificate holder states that although concrete
16 requirements for individual turbine foundations would be greater, owing to the smaller number
17 turbines, the total amount of concrete for foundations would be less. The certificate holder
18 states that overall water use and wastewater disposal requirements for the facility, as
19 amended, would be similar to or less than the amount (25 million gallons) previously estimated
20 for the approved facility.⁴¹ Therefore, the Department recommends the Council find that
21 construction and operation of the facility, as amended, would not result in significant adverse
22 water use and wastewater disposal impacts to protected areas within the analysis area.

23 *Visual Impacts*

24 In the *Final Order on the Application*, the Council found that the facility would not have a
25 significant adverse visual impact to protected areas. In the *Final Order on the Application*, the
26 Council found that turbines would be potentially seen from the following protected areas
27 located within the 20-mile analysis area:

- 28 • John Day Federal Wild and Scenic River
- 29 • John Day State Scenic Waterway
- 30 • John Day Wildlife Refuge
- 31 • Deschutes Federal Wild and Scenic River
- 32 • Deschutes State Scenic Waterway
- 33 • Lower Deschutes Wildlife Area
- 34 • Columbia Hills Natural Area Preserve
- 35 • Columbia Basin Agriculture Research Center
- 36 • Columbia River Gorge National Scenic Area (CRGNSA) (including Columbia Hills State
37 Park and much of the Columbia Hills Natural Area Preserve)

⁴⁰ RFA No. 3, Section 5.1.6.

⁴¹ Id.

- 1 • Columbia Hills State Park (the *Final Order on the Application* stated that turbines would
2 not be seen in the Horsethief Lake portion of the park; turbines would have been seen
3 in the upland portions of the park near State Route 14 [SR-14])

4 RFA No. 3 contains an updated visibility analysis of the facility, as amended, to reflect the fewer
5 number of turbines and increased turbine height. The RFA No. 3 visibility analysis found that
6 the taller turbines would be visible from the protected areas identified in the *Final Order on the*
7 *Application*. The facility, as amended, would also be visible from one protected area not
8 previously identified or analyzed for visual effects, the Goldendale Fish Hatchery in
9 Washington.⁴² As included in the *Final Order on the Application*, the Goldendale Fish Hatchery is
10 approximately 11.8 miles from the facility, a considerable distance. There are a number of
11 intervening development features between the facility and the fish hatchery, including roads,
12 railroads, transmission lines, and other development features. Additionally, the certificate
13 holder states that the Goldendale Fish Hatchery does not have a management document or
14 master plan that contains a visual resource section and is not managed for scenic quality. In
15 addition to the Goldendale Fish Hatchery, the certificate holder states that the Columbia Hills
16 Natural Area Preserve, Columbia Basin Agriculture Research Center, and Columbia Hills State
17 Park are not managed for scenic quality.⁴³

18 The certificate holder in RFA No. 3 states that the facility, as amended, would not be seen from
19 the John Day or Deschutes Rivers or their adjacent shorelines. The updated visual analysis
20 shows that the taller blade-tip height of the turbines would be seen from slightly higher areas
21 on the river's canyon rims and low areas on some canyon walls than the approved smaller
22 turbines; however, the turbines still would not be visible from the water or the interior canyon
23 areas of either river.⁴⁴

24 The Council found in the *Final Order on the Application* that public views of the approved
25 facility from within the CRGNSA would be generally limited to locations along SR-14 in the
26 CRGNSA in the State of Washington. The facility, as amended, would be seen from hillsides
27 above and below SR-14, but these steep areas are not easily accessible to the general public. In
28 the *Final Order on the Application*, Council found that intervening features between the facility
29 and SR-14 (located both within and outside of the CRGNSA) that would be seen from the
30 highway included multiple transmission lines (composed of steel lattice towers and distribution
31 lines), radio towers, rail lines, I-84, Highway 30, and rural development, all of which would have
32 decreased the visual impact of the facility from views originating from the portion of SR-14 in
33 the CRGNSA. The facility, as amended, would have fewer, but taller, turbines potentially seen
34 from within the CRGNSA. As with the approved turbines, the updated visual analysis in RFA
35 No.3 depicts that the new turbines would be seen from most of the sections of SR-14 located
36 within the portion of the CRGNSA contained within the analysis area. The facility would also be
37 seen somewhat higher on the hillsides above SR-14 and on steep hillsides located below SR-14

⁴² Even though the Goldendale Fish Hatchery is located in Washington, it is considered a protected area subject to the Council's Protected Area standard, which specifically includes as protected areas "national and state fish hatcheries, including but not limited to Eagle Creek and Warm Springs." OAR 345-022-0040(f).

⁴³ Id.

⁴⁴ Id.

1 and above the Columbia River than the approved turbines. As was found during the review of
2 the original facility application, intervening features between SR-14 and the facility, such as
3 transmission lines, radio towers, rail lines, I-84, Highway 30, and rural development, would
4 decrease the visual impact of the facility on views from SR-14.⁴⁵

5 In a comment letter, Irene Gilbert/FGRV commented that the RFA does not include visual
6 representations of the amended facility on protected areas including the John Day Canyon, the
7 Deschutes Canyon, rock outcroppings and the Columbia River.⁴⁶ Ms. Gilbert also commented
8 that RFA No. 3 relied upon personal communication with representatives of the agencies that
9 manage these protected areas in order to prove that the facility would not cause a significant
10 visual impact, and that these communications are not provided or logged in the record. Ms.
11 Gilbert stated that these communications must be in writing and in the record, and that the
12 applicant has the burden of proof to demonstrate compliance with the standard.

13 Pursuant to OAR 345-022-0000 the Council must determine that a preponderance of evidence
14 on the record supports a conclusion that applicable Council standards, including the Protected
15 Area standard, have been satisfied. It is also the case that the certificate holder has the burden
16 of proving that the facility, as amended, complies with all Council standards and other
17 applicable rules. However, EFSC rules do not require that an application for a site certificate or
18 RFA include visual representations or visual simulations of a proposed facility or amended
19 facility. In this case, the certificate holder conducted a visibility analysis, as presented in RFA
20 No. 3, Attachment 1, Figures 3 and 4. The certificate holder relied upon this visibility analysis,
21 plus the Council's previous conclusions and findings regarding the facility, in order to make its
22 assertion that the amended facility continues to comply with all Council standards, including
23 the Protected Areas standard as well as Recreation and Scenic Resources (both of which include
24 an assessment of the facility's visual impact and which the certificate holder relied upon for the
25 updated visibility analysis to make its conclusions). After review of the evidence in the record⁴⁷,
26 the Department believes that the preponderance of evidence on the record related to visual
27 impacts on protected areas supports a conclusion that the facility, as amended, satisfies
28 Council's Protected Area standard. Additionally, in RFA No. 3, the certificate holder does not
29 reference or rely upon personal communication with agencies in conducting its assessment of
30 compliance with the Council standards.

31 As described above, the Department finds that the amended facility impacts to protected areas
32 would be broadly similar to what was found in the original *Final Order on the Application*. Based
33 on the findings presented here, the Department recommends the Council continue to find that
34 the facility, as amended, complies with the Protected Area standard.

⁴⁵ Id.

⁴⁶ Irene Gilbert/FGRV, public comment on RFA No. 3, March 4, 2016.

⁴⁷ Pursuant to OAR 345-027-0060(2), the record in an amendment includes information in the Department's administrative record on the facility referenced by the certificate holder.

1 **Conclusion of Law**

2 The Department recommends that the Council find that the facility, as amended, is not likely to
3 result in significant adverse impacts to any protected area, and complies with the Protected
4 Areas Standard.

5 **IV.A.7 Retirement and Financial Assurance: OAR 345-022-0050**

6 *To issue a site certificate, the Council must find that:*

7 (1) *The site, taking into account mitigation, can be restored adequately to a useful, non-*
8 *hazardous condition following permanent cessation of construction or operation of the*
9 *facility.*

10 (2) *The applicant has a reasonable likelihood of obtaining a bond or letter of credit in a form*
11 *and amount satisfactory to the Council to restore the site to a useful, non-hazardous*
12 *condition.*

13 **Findings of Fact**

14 The Retirement and Financial Assurance standard is intended to protect the State of Oregon
15 and its citizens if the certificate holder fails to perform its obligation to restore the site in the
16 event the certificate holder ceases construction or operation of the facility. To satisfy this
17 standard, the Council must find that the site can be restored to a useful, non-hazardous
18 condition following permanent cessation, and that the certificate holder has a reasonable
19 likelihood of obtaining a bond or comparable security in an amount satisfactory to the Council
20 to restore the site to a useful, non-hazardous condition.

21 The Council addressed the Retirement and Financial Assurance standard in section IV.C of the
22 *Final Order on the Application*. The Council concluded that, subject to conditions stated in the
23 *Final Order on the Application*, the certificate holder had the ability to adequately restore the
24 site to a useful, nonhazardous condition following permanent cessation of construction or
25 operation of the facility, and that the certificate holder had a reasonable likelihood of obtaining
26 a bond or letter of credit in a form and amount satisfactory to the Council. The first amendment
27 to the site certificate extended the construction deadlines and did not impact findings
28 regarding the Organizational Expertise standard. As a result, the *Final Order on Amendment*
29 *No. 1* referred to the analysis in the *Final Order on the Application*. In the *Final Order on*
30 *Amendment No. 2*, the Council found that the new certificate holder, Orion Golden Hills Wind
31 Farm, LLC, continued to have the ability to adequately restore the site to a useful,
32 nonhazardous condition and continued to have a reasonable likelihood of obtaining a bond or
33 letter of credit in a form and amount satisfactory to the Council. Orion Renewables remains the
34 parent company of the site certificate holder, Golden Hills Wind Farm LLC, for RFA No. 3.

35 Due to the requested changes of the facility components, Golden Hills has revised its
36 retirement cost estimate from \$16,491,000 to \$14,424,936 in 2008 dollars, the year of the

1 original site certificate application.⁴⁸ According to Golden Hills, the cost estimate for RFA No. 3
2 has been reduced based on three factors:

- 3 • Elimination of the 500 kV transmission line
- 4 • Elimination of one substation
- 5 • Reduction in number of turbines from 267 to 125

6 The revised estimate for site restoration, based upon amendments requested in RFA No. 3, is
7 presented in Attachment 6 of RFA No. 3, Supplemental Information Report.

8 The Department has reviewed and agrees with the cost estimate, and recommends that the
9 Council find the certificate holder's estimated cost is a reasonable estimate of an amount
10 satisfactory to restore the site to a useful, non-hazardous condition.

11 OAR 345-022-0050(2) requires the Council to determine that the certificate holder has a
12 reasonable likelihood of obtaining a bond or letter of credit, in a form and amount satisfactory
13 to the Council, to restore the site to a useful, non-hazardous condition. In the RFA No. 3
14 supplemental information report, Golden Hills provided a letter from the firm Beecher and
15 Carlson, which reports to handle the surety bonds and commercial insurance for Orion
16 Renewable Energy Group. In this letter, Beecher and Carlson state that it is confident that Orion
17 Renewable Energy Group will be able to secure the required surety bond for the Golden Hills
18 facility, for \$14,424,936. The letter does not constitute a firm commitment from Beecher and
19 Carlson to issue a bond, but it is evidence that Orion Renewables could obtain the necessary
20 bond for the Golden Hills facility.⁴⁹

21 To ensure the certificate holder meets its obligations, the Council adopted Conditions IV.C.1-10
22 in the site certificate. These conditions, among other obligations, require the certificate holder
23 to submit to the Council, prior to construction, a bond or letter of credit sufficient to the
24 Council to restore the site to useful, non-hazardous condition. Condition IV.C.4 requires the
25 bond or letter of credit to be updated to present value based on inflation. All conditions would
26 continue to apply to the certificate holder.

27 In accordance with this finding, the Department recommends that the Council modify the
28 existing site certificate Condition IV.C.4:

29 **IV.C.4:** Before beginning construction, the certificate holder shall submit to the State
30 through the Council a bond or letter of credit in the amount described herein naming the
31 State, acting by and through the Council, as beneficiary or payee. If the certificate holder
32 elects to build the facility in a single phase, the initial bond or letter of credit amount is
33 ~~\$16,491,000~~ \$14,425,000 (in 2008 dollars), adjusted to the date of issuance as described in
34 (b), or the amount determined as described in (a). If the certificate holder elects to build the
35 facility in more than one phase, the amount of the initial bond or letter of credit for each
36 phase of construction shall be the amount determined as described in (a). The certificate

⁴⁸ RFA No. 3, Section 5.1.7, and Supplemental Information Report, page 4 and Attachment 6. As is required by existing site certificate Condition IV.C.4(b)(vi), the bond amount should be rounded to the nearest \$1,000, or in this instance, the bond would be \$14,425,000.

⁴⁹ Supplemental Information Report, Attachment 6.

1 holder shall adjust the amount of each bond or letter of credit on an annual basis thereafter
2 as described in (b).

3 ...

4 Based on the foregoing findings and the evidence in the record, the Department
5 recommends that the Council find that certificate holder has the capacity to restore the
6 facility site to a useful, non-hazardous condition following permanent cessation of
7 construction, and that the certificate holder has demonstrated a reasonable likelihood of
8 obtaining a bond or letter of credit, satisfactory to the Council, in an amount adequate to
9 restore the site to a useful, nonhazardous condition.

10 **Conclusion of Law**

11 Based on the findings presented above, the Department recommends that the Council find that
12 the certificate holder continues to satisfy the Council's Retirement and Financial Assurance
13 standard.

14 **IV.A.8 Fish and Wildlife Habitat: OAR 345-022-0060**

15 *To issue a site certificate, the Council must find that the design, construction and operation of*
16 *the facility, taking into account mitigation, are consistent with the fish and wildlife habitat*
17 *mitigation goals and standards of OAR 635-415-0025 in effect as of September 1, 2000.*

18 **Findings of Fact**

19 The Fish and Wildlife Habitat standard requires the Council to find that the design,
20 construction, and operation of the facility are consistent with the ODFW fish and wildlife
21 habitat mitigation goals and standards in OAR 635-415-0025. ODFW's rule also establishes a
22 habitat classification system based on the function and value of the habitat it would provide to
23 a specie or group of species likely to use it. There are six habitat categories, with category 1
24 being the most valuable, and category 6 the least valuable. ODFW provided a comment letter
25 on RFA No. 3, dated May 25, 2016.

26 The Council addressed the Fish and Wildlife Habitat standard in section IV.M of the *Final Order*
27 *on the Application*. The Council made findings regarding the characteristics of the habitat types
28 within the site boundary and the State-sensitive species observed within or near the site
29 boundary during avian point-counts and other wildlife surveys. Based on those findings, the
30 Council found that, subject to specified conditions, the design, construction, and operation of
31 the proposed facility, taking mitigation into consideration, would be consistent with the
32 ODFW's habitat mitigation goals and standards and the EFSC Fish and Wildlife Habitat standard.
33 The conditions imposed in the original site certificate related to the Fish and Wildlife Habitat
34 standard are Conditions IV.M.1 to IV.M.10.

35 The first amendment to the site certificate extended the construction deadlines and Council
36 found that it did not impact compliance with the Fish and Wildlife Habitat standard. As a result,
37 the *Final Order on Amendment No. 1* relied on the analysis in the *Final Order on the Application*.
38 The second amendment to the site certificate also extended the construction deadlines. At that
39 time, the Council found that, because the raptor nest surveys were outdated, the certificate

1 holder must complete two years of raptor nest surveys before beginning construction in order
2 to ensure that compliance with the Fish and Wildlife Habitat standard is maintained. Site
3 certificate Condition IV.M.11 imposed this requirement. This condition also requires that the
4 surveys are completed according to a Raptor Nest Survey Protocol, which was included as an
5 attachment to the *Final Order on Amendment No. 2*. The protocol is included as Attachment C
6 to this revised proposed order; the protocol has not been changed since it was reviewed and
7 approved by Council in the *Final Order on Amendment No. 2*.

8 *Habitat Categories and Classifications*

9 As described throughout this revised proposed order, RFA No. 3 would amend the site
10 boundary by removing 2,800 acres and adding 122.5 acres to account for the change in facility
11 design, specifically to account for two short segments of 230 kV transmission line. RFA No. 3
12 would also increase temporary impacts by 14 acres, from a previously estimated 1,055 to 1,069
13 acres. As discussed below, the 14-acre increase in temporary impacts would be within category
14 6 habitat.

15 RFA No. 3 states that the habitat categories described in the original ASC are still valid, and
16 references an email dated November 18, 2015 from Jeremy Thompson, District Wildlife
17 Biologist for ODFW, who confirmed that the Golden Hills Wind Farm habitat classifications
18 submitted in the original ASC are still valid.⁵⁰ In its May 25, 2016 comment letter on RFA No. 3,
19 ODFW stated that it “acknowledges the appropriateness of location for the Golden Hills Wind
20 Project. By siting this project within agricultural wheat fields, as opposed to intact wildlife
21 habitats, the Golden Hills Wind Project addresses the macro-siting recommendations of the
22 Oregon Columbia Plateau Ecoregion Wind Energy Siting and Permitting Guidelines.”

23 The certificate holder performed desktop surveys between December 1, 2015, and March 3,
24 2016, and field surveys on March 4, 2016 for the areas of the site boundary that were not
25 included in the original application and had not been previously surveyed. Survey results
26 determined that habitats in these areas consist entirely of actively farmed dryland wheat fields
27 and existing development including other energy infrastructure including roads, transmission
28 line, and a substation.⁵¹

29 The certificate holder provided an updated habitat impact assessment to account for the facility
30 changes and site boundary adjustments considered as part of RFA No. 3.⁵² An updated habitat
31 impact table was provided by the certificate holder as part of RFA No. 3, and is reproduced as
32 Table 1 below.⁵³ No Category 1 habitat impacts would occur. Compared to the original facility
33 design as approved by Council, Category 2 habitat impacts are expected to be reduced from
34 25.1 acres to 2.9 acres of temporary impact, and from 0.91 acre to 0.0017 permanent impact.

⁵⁰ RFA No. 3, Section 5.1.8.

⁵¹ Supplemental Information Report, Page 4, and Attachment 8.

⁵² Supplemental Information Report, Page 4, Attachment 5, and Attachment 7.

⁵³ Information Request Response, June 3, 2016, Attachment 2. Table 1 replaces Table IV.M.1 from the *Final Order on the Application*.

Table 1. Habitat Categories and Classifications within Proposed Site Boundary with Acreages of Impact

Habitat Category	Habitat Classification	Impacts	
		Temporary Facilities (acres disturbed)	Permanent Facilities (acres disturbed)
1	Conservation Reserve Enhancement Program (CREP)	0.0	0.0
1	Grassland (GR)	0.0	0.0
1	Shrub-steppe (SS)	0.0	0.0
1	Upland Trees (UT)	0.0	0.0
1	Upland Trees Exotic Shrubs (UT/ES)	0.0	0.0
Category 1 Total		0.0	0.0
2	CREP	2.0	0.0007
2	Perennial Stream (PS)	0.0	0.0
2	Riparian Trees (RT)	0.0	0.0
2	Shrub-steppe (SS)	0.9	0.0010
2	UT	0.0	0.0
2	Pond (WP)	0.0	0.0
Category 2 Total		2.9	0.0017
3	Conservation Reserve Program (CRP)	17.2	1.3
3	GR	39.8	4.2
3	Grassland Cliff (GR/CL)	0.0	0.0
3	(Intermittent Stream) IS	0.0	0.0
3	RT	0.0	0.0
3	SS	0.0183	0.0
3	UT	0.0	0.0
3	UT/ES	0.0	0.0
Category 3 Total		57.0	5.5
4	GR	6.5	0.1
Category 4 Total		6.5	0.1
Category 5 Total		(None Identified)	
6	Agricultural (AG)	942.7	126.5
6	Developed (DE)	2.2	0.0002
6	Road	57.3	0.2
Category 6 Total		1,002.2	126.7
TOTAL		1,069	132

1
2 As a result of the amended facility layout and updated habitat impact table, the Department
3 recommends that the Council amend Condition IV.M.9 to reference the updated maps and
4 habitat impact table as included in this order. Additionally, the Department recommends that
5 subsection (b) be deleted as it does not relate to the Fish and Wildlife Habitat standard, and
6 would be difficult to interpret or enforce.

7 (IV.M.9) The certificate holder may construct turbines and other facility components within
8 the 900-foot corridors shown on Figures P-1 through P-10 of the Application for a Site
9 Certificate and August 2008 supplement., ~~subject to the following requirements addressing~~
10 ~~potential habitat impact:~~

11 ~~(a)~~ The certificate holder shall not construct any facility components within areas of
12 Category 1 or Category 2 habitat and shall avoid temporary disturbance of Category 1 or

1 Category 2 habitat, except for the Category 2 disturbance acreage allowed in [Table 1](#)
2 [Table IV.M.1](#) in the Final Order [for RFA No. 3](#).

3 ~~(b) The certificate holder shall design and construct facility components that are the~~
4 ~~minimum size needed for safe operation of the energy facility.~~

5 To ensure that impacts are addressed accurately and that the Habitat Mitigation and
6 Revegetation Plan (HMRP) is based on accurate information, the Council imposed site
7 certificate Condition III.C.1 requiring that the certificate holder provide detailed maps showing
8 the final locations of facility components, and a table showing the acres of temporary and
9 permanent habitat impact by habitat category and subtype. This condition as currently phrased
10 only requires that this condition be satisfied “before beginning construction and after
11 considering all micro-siting factors.” To clarify that this condition is intended to be satisfied close
12 to the beginning of construction, the Department recommends an amendment to existing site
13 certificate Condition III.C.1 to require the condition be satisfied no more than two years prior to
14 beginning construction.

15 (III.C.1) Before beginning construction, [but no more than two years before beginning](#)
16 [construction](#), and after considering all micro-siting factors, the certificate holder shall
17 provide to the Department, the Oregon Department of Fish and Wildlife (“ODFW”), and the
18 Planning Director of Sherman County detailed maps of the facility site, showing the final
19 locations where the certificate holder proposes to build facility components and a table
20 showing the acres of temporary and permanent habitat impact by habitat category and
21 subtype. The maps shall include the locations of temporary laydown areas and areas of
22 temporary ground disturbance associated with the construction of all transmission lines.
23 The detailed maps of the facility site shall indicate the habitat categories of all areas that
24 would be affected during construction. In classifying the affected habitat into habitat
25 categories, the certificate holder shall consult with ODFW. The certificate holder shall not
26 begin ground disturbance in an affected area until the habitat assessment has been
27 approved by the Department. The Department may employ a qualified contractor to
28 confirm the habitat assessment by on-site inspection.

29 Habitat impacts are to be mitigated in accordance with the HMRP. The HMRP, as originally
30 approved by Council and included as an attachment to the *Final Order on the Application*, is
31 included as Attachment E to this revised proposed order (the same HMRP was originally
32 included as Attachment B to the *Final Order on the Application*). To account for the requested
33 facility and site boundary changes as part of RFA No. 3, as well as ownership change of the
34 facility as part of RFA No. 2, the HMRP must be updated. In its May 26, 2016 comment letter,
35 ODFW also recommends that the HMRP be updated to reflect changes in the habitat impact
36 acreage, and recommends that temporary impacts be addressed in addition to permanent
37 impacts.⁵⁴ In a response to the ODFW comment letter, the certificate holder agreed with this

⁵⁴ ODFW Comment Letter, May 26, 2016. In the same comment letter, ODFW requested the following mitigation options be included in Section (g) of the previously approved WMMP (which is included as Attachment D to this revised proposed order, and which was included as Attachment A to the *Final Order on the Application*) to address turbine-related avian fatalities: 1) shutdown of high-risk turbines either on demand or through use of temporary,

1 recommendation. Existing site certificate Condition IV.M.1 implements the HMRP; however, as
2 currently phrased it is unclear that the HMRP will be updated prior to construction to include
3 the revised habitat categorization and anticipated impacts based on final facility design, as well
4 as changes to account for the facility changes as part of RFA No. 3 and the ownership change as
5 part of RFA No. 2. Therefore, the Department recommends that existing site certificate
6 Condition IV.M.1 be updated as follows:

7 (IV.M.1) ~~Prior to construction, the certificate holder shall finalize and implement the Habitat~~
8 ~~Mitigation and Revegetation Plan (HMRP), included as Attachment E to the *Final Order on*~~
9 ~~*Amendment No. 3*, as approved by the Department in consultation with ODFW ~~The~~~~
10 ~~certificate holder shall implement the Habitat Mitigation and Revegetation Plan submitted~~
11 ~~by the certificate holder in its August 2008 application supplement and attached to the *Final*~~
12 ~~*Order as Attachment B* and as amended from time to time. Such amendments may be made~~
13 ~~without amendment of the site certificate. The Council authorizes the Department to agree~~
14 ~~to amendments to the HMRP. The Department shall notify the Council of all amendments,~~
15 ~~and the Council retains the authority to approve, reject or modify any amendment of the~~
16 ~~HMRP agreed to by the Department.~~

17 The finalized HMRP shall incorporate the maps, habitat classifications, and anticipated
18 temporary and permanent habitat impact assessment completed as per site certificate
19 Condition III.C.1. Prior to start of construction, the certificate holder shall acquire the legal
20 right to create, enhance, maintain and protect a habitat mitigation area so long as the site
21 certificate is in effect by means of outright purchase, conservation easement, or similar
22 conveyance and shall provide a copy of the documentation to the Department. The nominal
23 lease term shall be at least 30 years, with an option to extend if the facility continues
24 operations past year 30. The mitigation area shall be as shown in Figures 1, 2, and 3 of
25 Attachment E to the *Final Order on Amendment No. 3* ~~B to the *Final Order*~~. Any different
26 mitigation area shall require prior approval of the Department in consultation with ODFW.

27 ODFW also recommended in its May 26, 2016 comment letter that the certificate holder should
28 use a pre-emergent herbicide to target annual grasses, especially cheatgrass, within areas
29 disturbed during construction. In accordance with existing site certificate Condition IV.D.16, the
30 certificate holder will work with the Sherman County Weed Control Manager to take the
31 appropriate measures to prevent the invasion, during and after construction, of any weeds on
32 the Sherman County noxious weed list, which could include the use of a pre-emergent
33 herbicide to target grasses (especially cheatgrass) within areas disturbed during construction as
34 part of the final HMRP.

seasonal/diurnal restrictions, and 2) raising the cut-in speed of turbine blades. In the WMMP previously approved by Council, the plan explains that in response to a threshold of concern exceedance, the certificate holder may be required to implement mitigation as approved by the department that is designed to benefit the affected species group. Mitigation may include, but is not limited to, measures such as protection of nesting habitat and enhancement of a protected tract by weed removal and control. While each facility is evaluated based on its own facts, the department has not previously recommended seasonal/diurnal operating restrictions or raising the cut-in speed as appropriate measures to mitigate for a threshold of concern exceedance and would not consider these measures necessary to satisfy the Council's standard.

1 In the *Final Order on Amendment No. 2*, the Council adopted Condition IV.M.11, on
2 recommendation from ODFW, to provide assurance that habitat is properly categorized.
3 However, the condition, as adopted, did not specify the steps or actions the certificate holder
4 needed to take following the completion of the surveys. As such, to clarify the intention of
5 Condition IV.M.11, the Department recommends the Council adopt the following amendment
6 to Condition IV.M.11:

7 (IV.M.11) The certificate holder shall conduct two (2) years of raptor nest surveys with at
8 least one (1) year of the surveys occurring prior to the beginning of construction. The raptor
9 nest surveys shall be conducted following the instructions set forth in the Raptor Nest
10 Survey Protocol for Golden Hills Wind Project included as Attachment C to the *Final Order*
11 *on Amendment No. 3*~~Second Amended Site Certificate~~. The certificate holder shall provide a
12 written report on the raptor nest surveys to the Department and ODFW. If the surveys
13 identify the presence of raptor nests within the survey area, the certificate holder shall
14 implement appropriate measures, consistent with the Habitat Mitigation and Revegetation
15 Plan, and as approved by the Department in consultation with ODFW, to assure that design,
16 construction, and operation of the facility are consistent with the Fish and Wildlife Habitat
17 standard.

18 Also in the *Final Order on the Application* the Council imposed Condition IV.M.4, requiring the
19 certificate holder to survey the status of known raptor nests near the facility prior to ground-
20 disturbing activities. However, the condition as currently phrased does not clearly state that the
21 survey boundary is intended to include 0.5 mile from ground-disturbing activities.⁵⁵
22 Additionally, the condition as currently phrased allows for ODFW to approve an alternative plan
23 for protection of nests, but does not specifically include the Department as part of compliance
24 management. Therefore, the Department recommends that the Council include the following
25 edits to Condition IV.M.4:

26 Fish and Wildlife Habitat Condition IV.M.4. The certificate holder shall survey the status of
27 known raptor nests within 0.5 miles of ground-disturbing construction activity before
28 ground-disturbing activities begin. If an active nest is found, and ground-disturbing activities
29 are scheduled to begin before the end of the sensitive nesting and breeding season (mid-
30 April to mid-August), the certificate holder will not engage in ground-disturbing activities
31 within a 0.25-mile buffer around the nest until the nest fledges young or the nest fails,
32 unless the Department, in consultation with ODFW, approves an alternative plan. If ground-
33 disturbing construction activities continue into the sensitive nesting and breeding season
34 for the following year, the certificate holder will not engage in ground-disturbing activities
35 within the 0.25-mile buffer if the nest site is found to be active until the nest fledges young
36 or the nest fails, unless the Department, in consultation with ODFW, approves an alternate
37 plan.

⁵⁵ In the *Final Order on the Application*, the Council imposed condition IV.M.4 based on the fact that Golden Hills, in its application for site certificate, made representation that it would conduct the raptor nest survey and protect the species, as described in the condition. Golden Hills proposed the condition language in its application for site certificate, Exhibit P, page P-68. In that section, it was stated that the survey would be within 0.5 mile from ground-disturbing construction activities.

1 *Public Comment*

2 In a comment letter dated March 4, 2016, Irene Gilbert/FGRV provided a number of comments
3 on RFA No. 3. These comments are addressed below.

4 The first comment states that “mitigation needs to be provided for the deaths of federally
5 protected wildlife as is required by OAR 635-415-0020(3).” However, the EFSC Fish and Wildlife
6 Habitat standard only expressly references OAR 635-415-0025. More importantly, based upon
7 the plain language of the rule, OAR 635-414-0020(3) does not require mitigation for deaths of
8 federally protected wildlife as Ms. Gilbert asserts. Instead, OAR 635-415-0020(3) relates to the
9 implementation of the ODFW mitigation requirements by ODFW and requires ODFW to make
10 recommendations consistent with the goals and standards of OAR 635-415-0025 for
11 development actions which impact fish and wildlife habitat when identified circumstances are
12 present. Pursuant to subsection (3)(a) one of the circumstances that requires ODFW to make
13 recommendations consistent with its fish and wildlife habitat policy is when a federal law
14 authorizes or requires mitigation for impacts to fish and wildlife. To the extent a federal law
15 authorizes or requires mitigation related to impacts of a wind facility to fish and wildlife, that is
16 an issue outside of Council jurisdiction. Any issue related to federally listed species would need
17 to be addressed by the certificate holder with the appropriate federal wildlife management
18 agency. Furthermore, in the case of an EFSC facility, ODFW makes recommendations consistent
19 with the goals and standards of OAR 635-415-0025 for energy facility development actions
20 because of the Council’s Fish and Wildlife Habitat Standard. OAR 635-415-0020(3) does not
21 require anything more. In this case, ODFW has recommended mitigation consistent with OAR
22 635-415-0025 in its comment letter dated May 25, 2016, as well as in previous comments on
23 the record of the Golden Hills Wind Facility application and previous amendment requests.

24 The second comment from Ms. Gilbert/FGRV states that the requirements of OAR 635-415-
25 0025 do not allow for impacts to Category 1 habitat quality or quantity, and that “it appears
26 there is nothing addressing the fact that there can also be no negative quality impacts.” The
27 comment requests that conditions be updated to “show no impacts area allowed, permanent
28 or temporary,” to Category 1 habitat, and that setbacks be included from Category 1 habitat.
29 This comment is accurate in that the Fish and Wildlife Habitat Mitigation Policy at OAR 635-415-
30 0025 states that the mitigation goal for Category 1 habitat is no loss of either quality or
31 quantity. The Council previously found that the Golden Hills facility is in compliance with the
32 EFSC Fish and Wildlife Habitat standard and the ODFW Fish and Wildlife Habitat Mitigation
33 Policy, including that the facility, as approved, would not impact Category 1 habitat. For RFA
34 No. 3, as described in this revised proposed order, the Department recommends the Council
35 continue to find that the facility, as amended, satisfies the Council’s Fish and Wildlife Habitat
36 standard and that the facility, as amended, would not impact Category 1 habitat and therefore
37 there would be no loss of either the quantity or quality of Category 1 habitat. Additionally, as
38 noted above, the May 25, 2016 comment letter from ODFW states that “[ODFW] acknowledges
39 the appropriateness of location for the Golden Hills Wind Project,” and goes on to commend
40 the facility for complying with the Oregon Columbia Plateau Wind Energy Siting and Permitting
41 Guidelines by siting the facility in agricultural wheat fields and not intact wildlife habitat. Finally,
42 Condition IV.M.9 states that the facility shall not construct any components within areas of
43 Category 1...habitat and shall avoid temporary disturbance of Category 1 habitat.”

1 Comment 3 in the letter from Ms. Gilbert/FGRV states that the analysis of wind facility impacts
2 to elk and deer do not include the most recent studies. However, the Golden Hills facility is not
3 located in big game winter range and the facility is not expected to significantly impact elk,
4 deer, or their habitat. ODFW did not comment on any potential impact related to elk or deer
5 from facility amendments as part of RFA No. 3.

6 Comment 4 relates to mitigation for reduction in habitat quality of Categories 1 through 4
7 habitat, and states that the “developer needs to be required to provide setbacks from these
8 categories for habitat to avoid indirect impacts results in a reduction in habitat quality, or
9 mitigation needs to be provided for those impacts.” As is described in this revised proposed
10 order, and in the record on the original site certificate application and previous two
11 amendments, mitigation is to be provided for impacts in accordance with the Council Fish and
12 Wildlife Habitat standard and the ODFW Fish and Wildlife Habitat Mitigation Policy.
13 Recommended amended Condition IV.M.1 would require the certificate holder to finalize and
14 implement the HMRP as approved by the Department in consultation with ODFW, in
15 accordance with all standards and requirements. As is shown in Table 1 above, of the estimated
16 1,069 acres of temporary impacts, 1,002 of these acres are Category 6 agriculture lands or
17 other developed lands, and of the estimated 132 permanent acres of impact, 126.7 acres are to
18 Category 6 agriculture lands or other developed lands. As demonstrated by these acreage
19 numbers, the vast majority of the impacted site boundary is Category 6.

20 Comment 5 states that the “habitat categories need to be reviewed,” and questions whether a
21 pond should be considered Category 3 habitat given the limited water resources in the area.
22 Site certificate Condition III.C.1 addresses this question, and specifically requires that prior to
23 construction, the certificate holder provide the Department and ODFW with detailed maps of
24 the facility site indicating all habitat categories that would be affected during construction, and
25 that as part of the habitat categorization, the certificate holder shall consult with ODFW.
26 Furthermore, the condition requires that construction not begin in an affected area until the
27 habitat assessment has been approved by the Department. Additionally, as shown on Table 1, a
28 pond is considered Category 2 habitat, and as noted in the table, no impacts to pond habitats
29 are expected.

30 Comment 6 states that all wildlife surveys need to be current, and that the commenter found
31 no wildlife surveys completed after 2007. As described above in this revised proposed order,
32 ODFW has agreed that habitat classifications completed as part of the original site certificate
33 application are still valid. Additionally, the certificate holder conducted habitat surveys of the
34 new site boundary area not previously considered in the application. Finally, ensuring and
35 maintaining continued compliance with the Fish and Wildlife Habitat standard would be
36 covered in Condition IV.M.11, which requires additional raptor nest surveys; Condition III.C.1,
37 which requires validation of the habitat categories prior to construction, as well as existing
38 Condition IV.L.3, which requires that prior to construction the certificate holder conduct new
39 field surveys for threatened and endangered species (the Department’s assessment of the
40 amended facility’s compliance with the Council’s Threatened and Endangered Species standard
41 is included in Section IV.A.9 of this revised proposed order).

1 Comment 7 suggests that the use of helicopters is an ineffective method for identifying raptor
2 nest. The comment letter does not explain why Ms. Gilbert believes surveys conducted by
3 helicopters are an ineffective method for identifying raptor nests. The raptor survey protocol,
4 which calls for the use of helicopters, was recommended by ODFW and approved by Council as
5 part of the second amendment request. ODFW has not recommended any change in this
6 protocol. The protocol is included as Attachment C to this revised proposed order.

7 Comment 8 questions the risk to bat species utilizing the proposed facility site, and states that
8 the risk to bat species is significant. The comment also states that species being killed at
9 surrounding sites are species being considered for listing as endangered species.⁵⁶ The original
10 application for site certificate study of bats indicated that two bat species are probably
11 migrants through the facility area, the hoary bat and the silver-haired bat. Neither of these
12 species are listed by ODFW as threatened, endangered, or special status. One special status bat
13 species, the pallid bat, was noted as occurring in Sherman County. In the ASC, the applicant
14 concluded that the facility is unlikely to significantly impact bats for multiple reasons, including
15 that the facility site has limited riparian areas or other water sources. The Council agreed with
16 this conclusion in the *Final Order on the Application*. Additionally, site certificate Condition
17 IV.M.7 implements the Wildlife Monitoring and Mitigation Plan (WMMP) included as
18 Attachment D to this revised proposed order (the same WMMP was originally included as
19 Attachment A to the *Final Order on the Application*), which includes a two-year post
20 construction monitoring program for bat fatalities. Should the threshold of concern, as
21 specified in the WMMP, be exceeded for bat species (or avian species listed in the WMMP),
22 additional mitigation may be necessary as outlined in the WMMP.

23 Comments 9 and 10 are related to setbacks, specifically setbacks from nests and water
24 resources, and setbacks from specific species active nests as included in existing Condition
25 IV.M.10. The comments request inclusion of setbacks from nests and water resources, and also
26 state that the setbacks included in Condition IV.M.10 are not consistent with current ODFW
27 recommended setbacks and that the setbacks need to be identified for the entire year, not just
28 during construction. Regarding Condition IV.M.10, it currently requires setbacks of
29 approximately ¼ mile (1,300 feet) from active nests for Swainson's hawk, golden eagle,
30 ferruginous hawk, and burrowing owl. The restriction is only during construction and only
31 during the sensitive period, which is defined for each species in the condition. The setback
32 distance and timing period is consistent with other wind facilities EFSC has and is currently
33 reviewing.⁵⁷ Additionally, ODFW did not comment on the setback distances or timing
34 restrictions for any of these four species, or setbacks from water sources. Finally, condition
35 IV.M.11 requires additional raptor nest surveys prior to construction. Finally, as noted

⁵⁶ The comment letter also questioned impacts to bat species under OAR 345-024-0015(4), Cumulative Effects Standard for Wind Facilities, which requires the Council find that the wind facility can be designed and construed to reduce cumulative adverse environmental effects including (4), "designing the facility to reduce the risk of injury to raptors or other vulnerable wildlife in areas near turbines or electrical equipment." In addition to being addressed in the Fish and Wildlife Habitat standard section, this comment is addressed in the Cumulative Effects standard section of this revised proposed order.

⁵⁷ For example, the setback distance and seasonal restriction is the same in the Wheatridge Wind Facility proposed order.

1 elsewhere in the revised proposed order, anticipated impacted habitat is mostly Category 6
2 agriculture land and developed land, which does not provide high quality habitat.

3 Comment 11 states that the proposed habitat mitigation would only account for the footprint
4 of the facility, and that “there would be additional quality impacts which would exist for the
5 time this development is in operation.” The Council previously found the facility to be in
6 compliance with the Fish and Wildlife Habitat standard, including the HMRP. As described
7 above, Condition IV.M.1, as amended, would require the certificate holder to finalize the HMRP
8 to incorporate the information produced in accordance with Condition III.C.1, specifically
9 habitat categorization and associated impacts based on final facility design and micro-siting
10 factors. As per this condition, the final HMRP must receive approval from ODOE in consultation
11 with ODFW prior to construction. This condition would ensure that the facility maintains
12 compliance with the Council’s Fish and Wildlife Habitat standard.

13 **Conclusion of Law**

14 Based on the findings presented above, and subject to the existing and amended conditions,
15 the Department recommends that the Council find that the facility, as amended, continues to
16 comply with the Council’s Fish and Wildlife Habitat standard.

17 **IV.A.9 Threatened and Endangered Species: OAR 345-022-0070**

18 *To issue a site certificate, the Council, after consultation with appropriate state agencies, must*
19 *find that:*

20 (1) *For plant species that the Oregon Department of Agriculture has listed as threatened or*
21 *endangered under ORS 564.105(2), the design, construction and operation of the*
22 *proposed facility, taking into account mitigation:*

23 (a) *Are consistent with the protection and conservation program, if any, that the Oregon*
24 *Department of Agriculture has adopted under ORS 564.105(3); or*

25 (b) *If the Oregon Department of Agriculture has not adopted a protection and*
26 *conservation program, are not likely to cause a significant reduction in the likelihood*
27 *of survival or recovery of the species; and*

28 (2) *For wildlife species that the Oregon Fish and Wildlife Commission has listed as*
29 *threatened or endangered under ORS 496.172(2), the design, construction and operation*
30 *of the proposed facility, taking into account mitigation, are not likely to cause a*
31 *significant reduction in the likelihood of survival or recovery of the species.*

32 **Findings of Fact**

33 The Threatened and Endangered Species standard requires the Council to find that the design,
34 construction, and operation of the facility is not likely to cause a significant reduction in the
35 likelihood of survival or recovery of a fish, wildlife, or plant species listed as threatened or
36 endangered by the Oregon Fish and Wildlife Commission or Oregon Department of Agriculture
37 (ODA). For threatened and endangered plant species, the Council must also find that the facility
38 is consistent with an adopted protection and conservation program from ODA. Threatened and

1 endangered species are those listed under ORS 564.105(2) for plant species, or ORS 496.172(2)
2 for fish and wildlife species.

3 The Council addressed the Threatened and Endangered Species Standard in Section IV.L of the
4 *Final Order on the Application* and determined that, subject to specified conditions, the
5 proposed facility complied with the Council's Threatened and Endangered Species Standard.⁵⁸
6 The first site certificate amendment extended the construction deadlines and did not impact
7 compliance with the Threatened and Endangered Species Standard and consequently, the
8 Council relied on the analysis in the *Final Order on the Application* to conclude that the facility
9 continued to meet the standard.

10 The second amendment also extended the construction start and completion deadlines.
11 However, due to the passage of time, the Department requested that the certificate holder
12 conduct an updated desktop survey of threatened and endangered species in the analysis area.
13 This study demonstrated that there had been no changes to the facility's compliance with the
14 Threatened and Endangered Species standard. However, owing to the limitations of desktop
15 surveys, Council adopted Condition IV.L.3 requiring preconstruction field surveys to ensure the
16 facility maintains compliance with the Threatened and Endangered Species standard.

17 RFA No. 3 would amend the site boundary by removing 2,800 acres and adding 122.5 acres to
18 account for a change in facility design, specifically to allow for the construction of two short
19 segments of 230 kV transmission line. The amended facility would also reduce the number of
20 turbines from 267 to 125, and all turbines would be sited within the previously approved
21 turbine micro-siting corridors. ODFW provided a comment letter on the RFA but did not
22 specifically mention issues related to the Threatened and Endangered Species standard. ODFW
23 acknowledged that the Golden Hills facility is located in an appropriate location within
24 agricultural wheat fields, as opposed to intact wildlife habitat, and as such the facility has
25 addressed the macro-siting recommendations of the Oregon Columbia Plateau Ecoregion Wind
26 Energy Siting and Permitting Guidelines.⁵⁹

27 As part of RFA No. 3, the certificate holder performed a desktop survey of publicly and privately
28 available resources for federal- and state-listed endangered, threatened, proposed, or
29 candidate plant and wildlife species that have potential for occurrence in the analysis area,
30 including the two areas proposed to be added to the site boundary. In addition, the certificate
31 holder points to work done in support of RFA No. 2, which included desktop review of available
32 data sources in 2013 and 2014. Desktop survey results identified no additional listed species
33 that have a potential to occur within the survey area beyond those identified during previous
34 surveys. None of the identified species had status changes from the second amendment
35 desktop surveys.⁶⁰

36 The certificate holder also performed field surveys on March 4, 2016, in the two areas being
37 added to the site boundary. Field survey results indicate that the risk of impacting state listed
38 endangered, threatened, proposed, or candidate plant and wildlife species is very low because

⁵⁸ Final Order on the Application, Section IV.L.

⁵⁹ ODFW Comment Letter, May 25, 2016.

⁶⁰ RFA No. 3, Section 5.1.9, and Supplemental Information Report, Page 5, and Attachment 8.

1 no suitable habitat exists that could support these species. The survey results showed that the
2 new site boundary areas are dominated by recently tilled and planted wheat fields, and no
3 trees or shrubs were identified in the survey area or immediate vicinity. The survey did not
4 identify any wetlands or other waters.

5 As discussed above under the Fish and Wildlife Habitat standard, in a comment letter on RFA
6 No. 3, Ms. Gilbert/FGRV stated that wildlife surveys need to be current.⁶¹ The certificate holder
7 conducted updated desktop surveys of the analysis area, and desktop and field surveys for the
8 proposed new site boundary areas. As described above, these efforts did not identify any
9 changes from the previously approved amendment. In addition, site certificate Condition IV.L.3
10 would require field surveys for threatened and endangered species prior to construction to
11 confirm the facility's continued compliance with the standard. Ms. Gilbert/FGRV also
12 commented that there is a risk to the survival of several bat species utilizing the site, including
13 risk to species being considered for listing as endangered species. ODFW has not currently
14 listed any bat species as threatened or endangered, and ODFW did not comment or raise any
15 issue regarding risk to bat species or that any specific bat species is at risk of being listed as
16 threatened or endangered by ODFW.⁶²

17 The Department recommends that the Council adopt a modification of existing site certificate
18 Condition IV.L.3, which was adopted as part of the second amended site certificate. The
19 modification would clarify the timing for when the preconstruction field survey must be
20 performed and would help further ensure the facility's continued compliance with the
21 Threatened and Endangered Species standard.

22 (IV.L.3) Prior to the beginning of construction but no more than two years prior to the
23 beginning of construction of the facility the certificate holder shall perform new field
24 surveys for threatened and endangered species following the survey protocol set forth in
25 the Application for Site Certificate. The certificate holder shall report the results of the field
26 surveys to the Department, ODFW, and the Oregon Department of Agriculture. If the
27 surveys identify the presence of threatened or endangered species within the site
28 boundary, the certificate holder shall implement appropriate measures to avoid a significant
29 reduction in the likelihood of survival or recovery of the species, as approved by the
30 Department, ODFW, and the Oregon Department of Agriculture.

31 With the proposed condition revision, the Department recommends that the Council find the
32 requested amendment would not result in impacts to threatened and endangered plant or
33 animal species that have not been addressed by the Council, nor otherwise affect the certificate
34 holder's ability to construct and operate the facility consistent with applicable protection plans
35 for threatened or endangered plant and animal species and in a manner which will not likely
36 cause a significant reduction in the likelihood of a species' survival or recovery.

37 **Conclusion of Law**

38 Based on the reasoning discussed above, and subject to the existing and amended site
39 certificate conditions, the Department recommends that the Council find that the facility, as

⁶¹ Irene Gilbert-Friends of the Grande Ronde Valley, March 4, 2016, comment 6.

⁶² Irene Gilbert-Friends of the Grande Ronde Valley, March 4, 2016, comment 8.

1 amended, continues to comply with the Council’s Threatened and Endangered Species
2 standard.

3 **IV.A.10 Scenic Resources: OAR 345-022-0080**

4 (1) *Except for facilities described in section (2), to issue a site certificate, the Council must*
5 *find that the design, construction and operation of the facility, taking into account*
6 *mitigation, are not likely to result in significant adverse impact to scenic resources and*
7 *values identified as significant or important in local land use plans, tribal land*
8 *management plans and federal land management plans for any lands located within the*
9 *analysis area described in the project order.*

10 **Findings of Fact**

11 The Scenic Resources standard requires the Council to find that the facility would not cause a
12 significant adverse impact to identified scenic resources and values. To be considered under the
13 standard, scenic resources and values must be identified as significant or important in local land
14 use plans, tribal land management plans, and/or federal land management plans.

15 The Council addressed the Scenic Resources standard in section IV.G of the *Final Order on the*
16 *Application*. The Council found that the design, construction, and operation of the facility,
17 taking into account mitigation, were not likely to result in significant adverse impacts to scenic
18 resources and values identified as significant or important in local land use plans, tribal land
19 management plans, and federal land management plans for any significant or important scenic
20 resources identified within the 10-mile analysis area.⁶³ In the *Final Order on the Application*,
21 Council adopted three site certificate conditions related to the Scenic Resources standard,
22 conditions IV.G.1 to IV.G.3. These conditions would continue to apply to the facility, as
23 amended.

24 The Council determined that the first and second amendments to the site certificate to extend
25 the construction deadlines did not impact compliance with the Scenic Resources standard. As a
26 result, the *Final Order on Amendment No. 1* and the *Final Order on Amendment No. 2* relied on
27 the analysis and findings in the *Final Order on the Application* to conclude that the facility
28 continued to meet that standard.

29 RFA No. 3 proposes changes to the facility design. The facility, as amended, would include
30 142 fewer wind turbines than the previously approved facility, reducing the number of turbines
31 from 267 to 125. The 125 proposed turbines would potentially be taller than the previously
32 approved turbines, up to 518 feet in total height, from 420 feet. In addition, the facility, as
33 amended, will remove approximately 2,800 acres from the site boundary and add
34 approximately 122.5 acres to account for the change in facility design (two short segments of
35 230 kV transmission line), while reducing the total amount of overhead transmission line by
36 approximately 48 percent, mostly by removing the 500 kV transmission line that was previously
37 approved as part of the facility.

38 As part of RFA No. 3, the certificate holder evaluated the facility’s compliance with the Scenic
39 Resources standard by conducting a visual analysis that determined where the proposed new

⁶³ Final Order on the Application, Section IV.G.

1 turbine model would be potentially seen from significant or important scenic resources within
 2 the analysis area.⁶⁴ The visual analysis included a review of local land use, tribal land
 3 management, and federal land plans for updates since the *Final Order on the Application* was
 4 issued. Based on this review, and similar to significant or important scenic resources evaluated
 5 in the *Final Order on the Application*, the certificate holder evaluated the impact of the facility,
 6 as amended, for the following scenic resources:

- 7 • Columbia River Gorge National Scenic Area (CRGNSA)
- 8 • Oregon National Historic Trail
- 9 • Lower Deschutes River Canyon
- 10 • John Day River Canyon (i.e. area rim-to-rim)
- 11 • Journey Through Time Scenic Byway
- 12 • Sherman County⁶⁵

13 In addition, the certificate holder identified two updated resource plans: the *Sherman County*
 14 *Comprehensive Land Use Plan* (June 2007), which contains items related to scenic resources
 15 that were not previously considered in the *Final Order on the Application*, and the *Bureau of*
 16 *Land Management – John Day Basin Record of Decisions and Resource Management Plan* (April
 17 2015).⁶⁶ The changes associated with these identified resource plans are described below.

18 In order to evaluate potential visual impacts of the facility, as amended, at the scenic resources
 19 described above, the certificate holder conducted a “Zone of Visual Influence” (ZVI) analysis for
 20 the 10-mile analysis area of the tallest turbines proposed in RFA No. 3. The Department’s
 21 analysis of the results of the ZVI analysis for each identified scenic resource is presented below.

22 *Columbia River Gorge National Scenic Area*

23 The certificate holder’s ZVI analysis determined that the taller turbines would continue to be
 24 visible from portions of the CRGNSA. The closest turbines would be approximately 5 miles away
 25 from the CRGNSA and the most distant would be approximately 17 miles. The certificate holder
 26 concludes that the increased height of the proposed turbines would not make them
 27 substantially more noticeable from within the CRGNSA than the approved turbines, nor would
 28 they be seen over a much greater area. In addition, the certificate holder states that the
 29 reduction in the number of turbines (from 267 to 125) means that fewer turbines would be
 30 seen from within the CRGNSA compared to the number that the Council previously evaluated
 31 and determined not to result in a significant adverse visual impact at this scenic resource.⁶⁷

32 Within the CRGNSA, as with the approved facility design, the certificate holder’s ZVI analysis
 33 concludes that the proposed taller turbines would be visible from most of the portion of SR-14
 34 which serves as a primary public viewpoint of the CRGNSA, as well as from some of the fairly
 35 remote, steep, undeveloped hillsides above and below SR-14. The proposed taller turbines
 36 would also be visible from areas farther above and below portions of the hillsides adjacent to
 37 SR-14. Unlike the approved turbines, the certificate holder’s ZVI analysis found that the taller
 38 turbines would be seen from the northern side of the Columbia River and nearby shoreline and

⁶⁴ RFA No. 3, Section 5.1.10, and Attachment 1, Figure 4.

⁶⁵ Final Order on the Application, Section IV.G.

⁶⁶ RFA No. 3, Section 5.1.10.

⁶⁷ Id.

1 from uplands starting in the area adjacent to the community of Wishram and continuing upriver
2 to an area north of Miller Island. In the *Final Order on the Application*, EFSC concluded that
3 existing development features such as transmission lines, wind turbines, railroad tracks, and
4 highways are clearly visible from SR-14 when looking toward the facility site. The *Final Order on*
5 *the Application* concluded that because the existing visual character includes these
6 development features, the presence of the facility would represent a modest change to a
7 viewers' perspective, and have less than significant impacts to significant or important scenic
8 resources associated with the CRGNSA.⁶⁸ Because the visual character, including existing
9 development features, of the area has not changed, and due to the distance of the facility to
10 the CRGNSA, the Department recommends that the Council find that the facility, as amended, is
11 not likely to result in a significant adverse impact at the scenic resources and values identified
12 as significant or important in the CRGNSA management plans.

13 *Oregon National Historic Trail*

14 The ZVI analysis conducted for RFA No. 3 concluded that as a result of topographic screening,
15 the taller turbines would not be seen from Oregon National Historic Trail "high potential sites"
16 within the analysis area including McDonald Ferry John Day River Crossing, Biggs Junction, and
17 the Deschutes River Crossing. Of the three "high potential sites," Biggs Junction and the
18 Deschutes River Crossing sites are located approximately 5-miles from the nearest turbine,
19 while the McDonald Ferry John Day River Crossing site is located approximately 10-miles from
20 the nearest turbine. In the *Final Order on the Application*, the Council found that based on the
21 certificate holder's computer modeling results and field investigations, the facility would not be
22 visible from the "high potential sites" identified within the analysis area.

23 Due to the distance of the facility from the resources, and the certificate holder's assertion that
24 topographical screening blocks the visibility of the amended facility at these "high potential
25 sites," the Department recommends the Council find that the facility, as amended, is not likely
26 to result in a significant adverse impact to these scenic resources.

27 *Deschutes River Canyon*

28 The certificate holder's ZVI analysis concluded that as with the previously approved turbines,
29 some of the proposed taller turbines would be seen from isolated rims of the Deschutes River
30 Canyon. At the closest portion of the canyon rim from which turbines would be visible, the
31 nearest turbines would be approximately 5.5 miles away. The ZVI analysis concluded that the
32 proposed taller turbines would likely be seen from additional remote upper canyon walls from
33 which the previously approved turbines would not be seen. The certificate holder concludes
34 that the taller turbines, however, would not be visible from the Deschutes River, its shoreline,
35 or interior canyon areas. The Council concluded in the *Final Order on the Application* that
36 because the facility would be visible from limited, isolated rims with limited public access, that
37 the facility would be compatible with the objectives of protecting the river from visual impacts,
38 as established in BLM's management and visual resource plan.⁶⁹ For the same reasons,
39 specifically that the amended facility would have limited visibility in the river canyon, is only
40 expected to be visible at isolated areas with limited public access, and would not be visible from

⁶⁸ Final Order on the Application, Section IV.G.

⁶⁹ Final Order on the Application, Section IV.G.

1 the Deschutes River, shoreline, or interior canyon walls, the Department recommends that the
2 Council find the facility, as amended, is not likely to result in a significant adverse impact to the
3 scenic resources and values identified as significant and important in the management plans for
4 the Deschutes River Canyon.

5 *Journey Through Time Scenic Byway*

6 The certificate holder's ZVI analysis for RFA No. 3 concluded that, as with the previously
7 approved facility design, the proposed taller turbines would be visible in the foreground and
8 middleground of the Journey Through Time Scenic Byway (US 97) (byway) for approximately
9 12 miles south of the city of Moro and north of the community of Biggs. As discussed in the
10 *Final Order on the Application*, the management plan for the Journey Through Time Scenic
11 Byway as well as the cities of Moro and Wasco do not identify any significant or important
12 scenic values for the byway, and there were no scenic overlooks or waysides along the byway in
13 the analysis area.⁷⁰ Furthermore, in the *Final Order on the Application*, the Council found that
14 the byway management plan emphasizes management goals and values including creating jobs,
15 maintaining rural lifestyles, protecting important values such as historical attractions and
16 artifacts, and building identity for the region. The certificate holder did not describe any
17 changes to the byway management plan that would affect the previous Council findings. As
18 with the original facility design, the amended facility would include turbines visible from the
19 byway. However, the main activity of the byway is auto-touring, which typically would present a
20 short-term view of any particular location on the byway. Additionally, there are other
21 development features visible along the route. Finally, the Department did not receive comment
22 letters from the cities of Wasco or Moro, and the comment letter received from Sherman
23 County did not mention issues or concerns with scenic resources.⁷¹ Based on these findings, the
24 Department recommends that the Council find that the facility, as amended, is not likely to
25 result in a significant adverse impact to this resource.

26 *John Day River Canyon*

27 The facility, as amended, would be located approximately 9 miles from the closest section of
28 the John Day River, and would be separated from the river by a number of existing wind
29 projects and transmission lines. The certificate holder's ZVI analysis determined that the
30 proposed taller turbines would be potentially visible in very remote portions of upper rims of
31 the John Day River Canyon, but that no turbines would be seen from the river, its shoreline, or
32 lower canyon areas.

33 As described above, the *Bureau of Land Management – John Day Basin Record of Decisions and*
34 *Resource Management Plan* was updated in April 2015. The updates included visual resource
35 management objectives for the BLM to manage the land to “preserve the existing character of
36 VRM Class I landscape (for Wildernesses and Wilderness Study Areas)” and not to permit
37 activities that would result in significant, long-term, adverse effects on the visual resources of
38 the John Day River Canyon in areas normally seen from the river.⁷² The Council previously found
39 in the *Final Order on the Application* that the facility would be compatible with the BLM visual
40 resource management objectives for the John Day River Canyon, and as noted, the certificate

⁷⁰ Final Order on the Application, Section IV.G.

⁷¹ Sherman County Comment Letter, March 1, 2016 and May 18, 2016.

⁷² RFA No. 3, Section 5.1.10.

1 holder demonstrated through the ZVI analysis that the facility, as amended, would not be
2 visible from the river, shoreline, or lower canyon area. Accordingly, the Department
3 recommends that the Council find that the facility, as amended, is not likely to result in a
4 significant adverse impact to the scenic resources and values identified as significant or
5 important in the John Day River Canyon management plans.

6 *Sherman County*

7 The certificate holder notes that the 2007 update of the *Sherman County Comprehensive Plan*
8 identified trees, rock outcroppings, the John Day and Deschutes River canyons, and the rural
9 nature of the Sherman County landscape, as important scenic resources within Sherman
10 County, which were not previously considered in the *Final Order on the Application*. The
11 certificate holder states that, as with the approved facility, the facility, as amended, would not
12 impact tree or rock outcroppings. As described above, the facility, as amended, would also not
13 significantly impact the visual resources within Sherman County including the John Day and
14 Deschutes River canyons. The certificate holder states that the facility, as amended, would not
15 remove substantial amounts of wheat fields, farms, or other elements that contribute to the
16 rural character of Sherman County's landscape. Finally, the certificate holder notes that the
17 taller turbines would be similar in appearance and character to turbines featured in Sherman
18 County tourism brochures such as *Windmills & Wheatfields: Scenic Cycling Tour Through*
19 *Sherman County* and *Windmills and Wheatfields: Oregon Wind Farm Driving Tour* that celebrate
20 the rural character of Sherman County along with the County's unique position as "Oregon's #1
21 wind farm region."⁷³ As noted above, the Sherman County comment letters did not mention
22 any issues or concerns with scenic resources.⁷⁴ Finally, the Council previously found in the *Final*
23 *Order on the Application* that the facility satisfied the Council's Land Use standard which
24 includes the applicable substantive criteria from the Sherman County Comprehensive Plan and
25 Sherman County Zoning Ordinance, and in Section IV.A.5 above, the Department recommends
26 the Council find that the facility, as amended, continues to meet the Land Use standard. Based
27 on these findings, the Department recommends that the Council find that the facility, as
28 amended, is not likely to result in a significant adverse impact to the scenic resources and
29 values identified as significant or important in the *Sherman County Comprehensive Plan*.

30 Based on the analysis presented here, the Department recommends the Council continue to
31 find that the design, construction and operation of the facility, as amended, is not likely to
32 result in significant adverse impacts to scenic resource identified within the analysis area and
33 identified as significant or important in applicable land use plans or federal land management
34 plans.

35 **Conclusion of Law**

36 Based on the foregoing findings, the Department recommends that the Council find that the
37 design, construction and operation of the facility, as amended, would comply with the Council's
38 Scenic Resources standard.

⁷³ Id.

⁷⁴ Sherman County Comment Letters, March 1, 2016 and May 18, 2016.

1 **IV.A.11 Historic, Cultural and Archaeological Resources: OAR 345-022-0090**

2 (1) *Except for facilities described in sections (2) and (3), to issue a site certificate, the Council*
3 *must find that the construction and operation of the facility, taking into account*
4 *mitigation, are not likely to result in significant adverse impacts to:*

5 (a) *Historic, cultural or archaeological resources that have been listed on, or would likely*
6 *be listed on the National Register of Historic Places;*

7 (b) *For a facility on private land, archaeological objects, as defined in ORS 358.905(1)(a),*
8 *or archaeological sites, as defined in ORS 358.905(1)(c); and*

9 (c) *For a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c).*

10 (2) *The Council may issue a site certificate for a facility that would produce power from*
11 *wind, solar or geothermal energy without making the findings described in section (1).*
12 *However, the Council may apply the requirements of section (1) to impose conditions on*
13 *a site certificate issued for such a facility.*

14 ***

15 **Findings of Fact**

16 Section (1) of the Historic, Cultural and Archaeological Resources standard generally requires
17 the Council to find that the facility is not likely to result in significant adverse impacts to
18 historic, cultural or archaeological resources. Under Section (2), the Council may issue a site
19 certificate for a wind power facility without making findings of compliance with this standard.
20 However, the Council may impose site certificate conditions based on the requirements of this
21 standard.

22 The Council addressed the Historic, Cultural and Archaeological standard in section V.B of the
23 *Final Order on the Application* and imposed Conditions V.B.1 through V.B.10. The first and
24 second amendments to the site certificate extended the construction deadlines and did not
25 impact the Council's previous findings associated with the Historic, Cultural and Archaeological
26 standard. As a result, the *Final Order on Amendment No. 1* and *Final Order on Amendment No.*
27 *2* relied on the analysis in the *Final Order on the Application*.

28 As RFA No. 3 would expand the site boundary into areas not previously surveyed for historic,
29 cultural, and archaeological resources, Golden Hills conducted a desktop and field survey for
30 such resources within the proposed new site boundary areas. The surveys were conducted at
31 the expanded substation area and at the 230 kV transmission line segment that would
32 interconnect the facility to the BPA grid. The surveys did not identify any historic, cultural, or
33 archaeological resources. The certificate holder submitted a confidential survey report
34 documenting the methods and results of the surveys to both ODOE and SHPO.⁷⁵ Based on the
35 survey results, the Department does not recommend any changes to the existing site certificate
36 conditions. Existing Conditions V.B.1 to V.B.10 in the site certificate provide for the protection
37 of previously identified resources elsewhere in the site boundary, as well as provisions for

⁷⁵ Supplemental information report, page 5, and Attachment 9 (confidential).

1 protection of unidentified resources that may be uncovered during construction, amongst other
2 protective measures. All conditions in the site certificate would continue to apply to the facility,
3 as amended.⁷⁶

4 Based on the findings presented here, the Department recommends that the Council find that
5 the existing site certificate conditions ensure adequate protection of historic, cultural and
6 archeological resources.

7 **Conclusion of Law**

8 The Department recommends that the Council find that the conditions currently imposed in the
9 site certificate to address the Historic, Cultural and Archaeological Resources standard are
10 adequate to ensure issues related to that standard are fully addressed.

11 **IV.A.12 Recreation: OAR 345-022-0100**

12 *(1) Except for facilities described in section (2), to issue a site certificate, the Council must*
13 *find that the design, construction and operation of a facility, taking into account*
14 *mitigation, are not likely to result in a significant adverse impact to important*
15 *recreational opportunities in the analysis area as described in the project order. The*
16 *Council shall consider the following factors in judging the importance of a recreational*
17 *opportunity:*

18 *(a) Any special designation or management of the location;*

19 *(b) The degree of demand;*

20 *(c) Outstanding or unusual qualities;*

21 *(d) Availability or rareness;*

22 *(e) Irreplaceability or irretrievability of the opportunity.*

23 **Findings of Fact**

24 The Recreation standard requires the Council to find that the design, construction, and
25 operation of the facility are not likely to result in significant adverse impacts to important
26 recreational opportunities. The Council addressed the Recreation standard in section IV.H of
27 the *Final Order on the Application*, and found that the design, construction and operation of the
28 facility were not likely to result in a significant adverse impact to any important recreational
29 opportunities identified within the 5-mile analysis area. The Council did not impose any
30 conditions related to this standard.

31 The first amendment to the site certificate to extend the construction deadlines did not impact
32 the Council's previous findings associated with the Recreation standard. As a result, the *Final*
33 *Order on Amendment No. 1* relied on the analysis in the *Final Order on the Application* to
34 determine that the facility continued to comply with the Recreation standard. Between the

⁷⁶ SHPO (Dennis Griffin) provided a comment email on December 30, 2015, upon receiving the original RFA No. 3. In that email, Mr. Griffin requested that the certificate holder provide a cultural resources survey results report for the expanded site boundary areas. In response to this email, the certificate holder conducted a cultural resources survey of the new site boundary areas, and submitted the survey results to ODOE and SHPO, as noted in the findings. SHPO, however, did not comment on the survey report. The survey did not identify any cultural resources in the new site boundary areas.

1 time when the Council reviewed the first amendment and the second amendment, a new state
2 park, Cottonwood Canyon State Park, was established near the facility. In the *Final Order on*
3 *Amendment No. 2*, the Council considered the facility's impact to this park under the Recreation
4 standard, and determined that Cottonwood Canyon State Park is likely to be unaffected by the
5 facility, as the facility is over 6.65 miles from the park, noise generated during facility operation
6 would be inaudible in the park, and visibility of the facility is only within isolated canyon rims
7 away from important recreational opportunities identified within the analysis area. As such,
8 Council found that facility would not cause significant adverse impacts to the recreational
9 opportunity at Cottonwood Canyon State Park.⁷⁷

10 RFA No. 3 proposes changes to the facility design including fewer, but taller, turbines, as well as
11 amendments to the site boundary, removing approximately 2,800 acres and adding
12 approximately 122.5 acres to account for the change in facility design, specifically to add short
13 segments of 230 kV transmission line, and changes to related and supporting facilities including
14 removing the 500 kV transmission line and one of two substations. The certificate holder
15 assessed the amended facility's compliance with the Recreation standard in RFA No. 3,
16 Section 5.1.12.

17 *Noise*

18 The Council previously found in the *Final Order on the Application* that noise associated with
19 the facility may be audible at some recreational resources (Journey Through Time Scenic
20 Byway, Oregon National Historic Trail, and Demoss Springs County Memorial Park), but would
21 not interfere with recreational opportunities or otherwise significantly impact the recreational
22 resource. The certificate holder states in RFA No. 3 that noise from the facility, as amended,
23 would still be audible at these three recreational opportunities.⁷⁸

24 The Journey Through Time Scenic Byway (byway) is primarily an auto-touring recreational
25 opportunity, and as such, operational noise generated by the facility, as amended, would likely
26 be masked by other cars travelling along the byway or otherwise minimally perceived by drivers
27 travelling along the road. Consistent with the Council's previous findings, the Department
28 recommends the Council find that operational noise from the facility, as amended, would not
29 be likely to result in significant adverse impacts to the byway.

30 The Council found in the *Final Order on the Application* that operational noise generated by the
31 facility as originally designed may be audible along the Oregon National Historic Trail, however,
32 as the Council concluded in the *Final Order on the Application*, there are no intact trail
33 segments or developed facilities associated with the trail within the analysis area, so noise from
34 the facility would not interfere with the recreational opportunity. While operational noise from
35 the amended facility may change from what was previously considered in the *Final Order on the*
36 *Application*, there remain no intact trail segments or developed facilities associated with the
37 trail in the analysis area, and as such, the Department recommends the Council find that
38 operational noise from the facility, as amended, would not be likely to result in significant
39 adverse impacts to recreational opportunities at the Oregon National Historic Trail.

⁷⁷ Final Order on Amendment No. 2, Section III.B.3.I

⁷⁸ RFA No. 3, Section 5.1.12.

1 Operational noise generated by the facility, as amended, may be audible at Demoss Springs
2 County Memorial Park. The Council previously concluded in the *Final Order on the Application*
3 that because noise levels would be below the DEQ noise limit of 50 dBA, it would not interfere
4 with the recreational opportunities of the park. The certificate holder asserts that prior to
5 construction, an updated noise analysis would be submitted to the Department and would
6 demonstrate that noise levels at this recreational opportunity would not exceed DEQ's noise
7 limit of 50 dBA.

8 DEQ's noise limit of 50 dBA represents the most restrictive statistical noise limit that applies to
9 industrial sources at noise-sensitive property locations at nighttime. This noise level, based on
10 Table X-2 of the ASC, represents noise levels of a typical office. As described in ASC Exhibit T,
11 Demoss Springs County Memorial Park includes shelters, picnic areas, and interpretive signs.
12 Because Demoss Springs County Memorial Park is not a "noise-sensitive property" as defined in
13 the DEQ regulation, the 50 dBA noise limit would not be applicable under the DEQ noise
14 regulations.⁷⁹ However, because the certificate holder asserts that noise levels would not
15 exceed 50 dBA, and because these noise levels would be not interfere with the recreational
16 opportunities at the park, and consistent with the Council's previous findings, the Department
17 recommends that the Council find that operational noise from the facility, as amended, would
18 not be likely to result in significant adverse impacts to recreational opportunities at Demoss
19 Springs County Memorial Park.

20 While facility construction noise could be audible at some important recreational areas,
21 construction would be temporary and short-duration, and therefore noise generating during
22 construction activities would be unlikely to cause a significant adverse impact to any important
23 recreational opportunity. In addition, existing site certificate Condition VI.A.1.1 would reduce
24 noise impacts during construction by requiring the use of exhaust mufflers on combustion
25 engine-powered equipment and limiting the noisiest operation of heavy construction
26 equipment to daylight hours.

27 *Traffic*

28 The *Final Order on the Application* concluded that temporary traffic impacts would occur to the
29 Journey Through Time Scenic Byway during construction. These impacts could include short-
30 term traffic delays on US-97 and local roads. However, Council found that the existence of
31 several passing lanes on US-97 would alleviate potential impacts along the travel corridor, and
32 Council concluded in the *Final Order on the Application* that traffic generated during facility
33 construction would not cause a significant adverse impact to the recreational opportunity. The
34 certificate holder describes that due to the fewer number of turbines proposed as part of RFA
35 No. 3, there would be a net decrease in truck traffic during construction by approximately 30
36 percent below the estimate previously considered by Council as part of the original application.
37 As such, the facility, as amended, would be expected to result in lower temporary construction
38 impacts to the recreational opportunity along the Journey Through Time Scenic Byway, as well
39 as other recreational opportunities in the analysis area.⁸⁰

⁷⁹ OAR 340-035-0015 defines "noise-sensitive property" as "real property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries."

⁸⁰ Id.

1 *Visual*

2 As described in the *Final Order on the Application*, the originally-approved facility would be
3 visible from six of the identified recreational opportunities in the analysis area (CRGNSA,
4 Journey Through Time Scenic Byway, Lewis and Clark National Historic Trail interpretive site at
5 the Maryhill Museum of Art, Maryhill Museum of Art, Maryhill's Stonehenge, and DeMoss
6 Springs Memorial Park). Council found at that time that the facility would not cause a significant
7 adverse impact to these recreational opportunities. Based on the certificate holder's ZVI
8 analysis conducted for RFA No. 3, the proposed taller turbines would be visible from the same
9 six recreational areas, although fewer turbines would be visible because fewer turbines would
10 be built.⁸¹ The original Council decision regarding the facility's visual impact to recreational
11 opportunities was generally not based on the visibility of the turbines per se, but rather a
12 number of other factors including that the area already includes a number of other highly
13 visible development features including existing roads and transmission lines, and that most of
14 the recreational opportunities are a number of miles from the facility. While the visibility of the
15 amended facility may change slightly at the recreational opportunity sites, the Council's original
16 rationale as included in the *Final Order on the Application* is still relevant and accurate, and
17 therefore the Department recommends the Council continue to conclude that the visibility of
18 the facility, as amended, would not be likely to result in significant adverse impacts at the
19 above referenced important recreational opportunities.

20 The certificate holder's visibility analysis conducted for RFA No. 3 determined that the facility,
21 as amended, would also be visible from additional portions of two important recreational
22 opportunity areas not previously evaluated, specifically additional areas within the CRGNSA and
23 the Deschutes River Corridor. The certificate holder's impact assessment is included in
24 Section 5.1.12 of RFA No. 3. The additional areas where the amended facility could be visible
25 from the CRGNSA are on the northern side of the Columbia River, including shoreline and
26 upland areas, as well as areas on the hillside above and below SR-14 in Washington. However,
27 as the certificate holder describes, these areas are not easily accessible to the general public,
28 and the existing view from these areas to the amended facility includes a number of
29 development features such as the interstate highway, other roads, transmission lines, rail lines,
30 and other features.⁸² As such, and considering the distance of the facility from the resource, the
31 Department recommends that the Council find the facility, as amended, is not likely to have a
32 significant adverse impact to recreational opportunities in the CRGNSA.

33 The certificate holder's visibility analysis determined that the facility, as amended, would be
34 visible from upper portions of canyon rims and lower portions of canyon walls in the Deschutes
35 River Corridor. However, as with the previously approved facility, the facility, as amended,
36 would not be visible from the Deschutes River itself or the Deschutes River State Recreation
37 Area. The main recreationally opportunities in this area are generally considered to be on or
38 related to the river itself. Therefore, the Department recommends that Council find that the

⁸¹ Id.

⁸² Id.

1 facility, as amended, is not likely to have a significant adverse impact to recreational
2 opportunities in the Deschutes River Corridor.⁸³

3 Based on the findings presented here, the Department recommends the Council find that the
4 facility, as amended, is not likely to result in significant adverse impacts to important
5 recreational opportunities within the analysis area.

6 **Conclusion of Law**

7 Based on the findings presented here, the department recommends that the Council find that
8 the design, construction and operation of the facility, as amended, is not likely to result in a
9 significant adverse impact to important recreational opportunities in the analysis area and
10 therefore the facility, as amended, complies with the Council's Recreation standard.

11 **IV.A.13 Public Services: OAR 345-022-0110**

12 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council*
13 *must find that the construction and operation of the facility, taking into account*
14 *mitigation, are not likely to result in significant adverse impact to the ability of public*
15 *and private providers within the analysis area described in the project order to provide:*
16 *sewers and sewage treatment, water, storm water drainage, solid waste management,*
17 *housing, traffic safety, police and fire protection, health care and schools.*

18 *(2) The Council may issue a site certificate for a facility that would produce power from*
19 *wind, solar or geothermal energy without making the findings described in section (1).*
20 *However, the Council may apply the requirements of section (1) to impose conditions on*
21 *a site certificate issued for such a facility.*

22 ***

23 **Findings of Fact**

24 The Council's Public Services standard requires the Council to evaluate a facility's impacts on
25 the ability of public and private service providers to supply sewer and sewage treatment, water,
26 stormwater drainage, solid waste management, housing, traffic safety, police and fire
27 protection, health care, and schools. Under OAR 345-022-0110(2), the Council may issue a site
28 certificate for a facility that would produce power from wind without making findings with
29 respect to the Public Services standard. However, the Council may impose site certificate
30 conditions based upon the requirements of the standard.

31 The Council addressed the Public Services standard in section V.C of the *Final Order on the*
32 *Application*, and imposed site certificate conditions V.C.1 to V.C.14 to address the requirements
33 of the standard. The first amendment to the site certificate extended the construction
34 deadlines and did not impact the Council's analysis or conditions regarding the Public Services
35 standard. As a result, the *Final Order on Amendment No. 1* relied on the analysis in the *Final*
36 *Order on the Application*.

⁸³ Id.

1 The second amendment to the site certificate, approved by Council in January 2015, also
2 extended the construction deadlines. However, since the affected service providers' ability to
3 provide their services could have changed over time, the certificate holder contacted each
4 public service provider listed in ASC Exhibit U and received confirmation of their continued
5 ability to provide the services listed while meeting the demands of the facility during
6 construction and operation. North Sherman County Rural Fire Protection District, Moro Rural
7 Fire Protection District, and Sherman County Emergency Services expressed renewed and
8 continuing concern over the lack of volunteer fire fighters, especially during the daytime hours,
9 to accommodate the facility's potential service needs. To address this concern, in the *Final*
10 *Order on Amendment No. 2*, Condition V.C.3 of the site certificate was amended to require the
11 certificate holder to develop and coordinate a fire safety and response plan with the impacted
12 fire districts before both construction and operation phases of the facility and established a
13 requirement that the certificate holder submit the plan to the Department.

14 The certificate holder maintains responsibility for responding to emergency events that cannot
15 be handled by local emergency response providers, such as high-angle rescue. The Council
16 considered and addressed this issue in the *Final Order on the Application*, and imposed site
17 certificate condition V.C.8 requiring that onsite personnel receive appropriate training,
18 including tower rescue training, on an annual basis.

19 The certificate holder states that the components included in RFA No. 3 would result in the
20 same or fewer employees required for construction and operation of the facility, and as such
21 would not increase the number of people requiring housing or public services. Accordingly, the
22 certificate holder states that RFA No. 3 would not change the impact previously evaluated in
23 the *Final Order on the Application*, *Final Order on Amendment No. 1*, and *Final Order on*
24 *Amendment No. 2* to police and fire protection services, housing services, health care services,
25 and schools. The certificate holder also states that there would be no changes to findings
26 related to sewers and sewer treatment providers. RFA No. 3 states that water use is anticipated
27 to be similar or less than previously reviewed by EFSC during both construction and operation,
28 due to the reduced volume of water needed during concrete mixing for turbine foundation
29 installation.⁸⁴

30 The facility, as amended, would not affect the Council's previous findings that construction and
31 operational activities would not impact any stormwater service providers as the facility is not
32 within the jurisdiction of nor would it be served by any such providers. In ASC Exhibit V, the
33 certificate holder explains that construction-related stormwater would drain to surrounding
34 lands and would infiltrate the ground. As described in Section IV.A.4 *Soil Protection* of this
35 revised proposed order, in order to minimize stormwater impacts during construction, the
36 certificate holder would be required to maintain compliance with an Erosion and Sediment
37 Control Plan (ESCP), to be approved by DEQ as part of the 1200-C National Pollutant Discharge
38 Elimination System (NPDES) permit.⁸⁵ Because the facility, as amended, would not be served by
39 any providers of stormwater management, the Department recommends the Council find that

⁸⁴ RFA No. 3, Section 5.1.13.

⁸⁵ *Id.*

1 operation and construction of the facility would not impact providers of stormwater
2 management services.

3 Additionally, the certificate holder states that the facility, as amended, would reduce the
4 amount of solid waste and reduce the amount of materials used overall, owing to the reduced
5 number of turbines. Should the facility, as amended, be retired, the certificate holder states
6 that the reduced quantity of materials would result in less waste than the previously approved
7 facility; in particular, the amended facility would use 42,000 tons of steel compared to 86,508
8 tons, and 4,713 cubic yards of concrete compared to 8,811 cubic yards estimated in the
9 previously approved facility design. The overall effect to solid waste management service
10 providers would be less for the amended facility than the previously approved facility.⁸⁶

11 Based on the findings presented here, the Department recommends the Council find that,
12 taking into consideration the existing site certificate conditions, construction and operation of
13 the facility, as amended, is not likely to result in significant adverse impacts to the ability of
14 public and private providers within the analysis area to provide the identified services.

15 **Conclusion of Law**

16 Based on the foregoing analysis, and subject to the existing conditions in the site certificate, the
17 Department recommends that the Council find that the facility, as amended, complies with the
18 Council's Public Services standard.

19 **IV.A.14 Waste Minimization: OAR 345-022-0120**

20 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council*
21 *must find that, to the extent reasonably practicable:*

22 *(a) The applicant's solid waste and wastewater plans are likely to minimize generation*
23 *of solid waste and wastewater in the construction and operation of the facility, and*
24 *when solid waste or wastewater is generated, to result in recycling and reuse of such*
25 *wastes;*

26 *(b) The applicant's plans to manage the accumulation, storage, disposal and*
27 *transportation of waste generated by the construction and operation of the facility*
28 *are likely to result in minimal adverse impact on surrounding and adjacent areas.*

29 *(2) The Council may issue a site certificate for a facility that would produce power from*
30 *wind, solar or geothermal energy without making the findings described in section (1).*
31 *However, the Council may apply the requirements of section (1) to impose conditions on*
32 *a site certificate issued for such a facility.*

33 ***

34 **Findings of Fact**

35 The Waste Minimization standard requires the Council to find that the certificate holder will
36 minimize generation of solid waste and wastewater, and manage waste generated to result in
37 minimal adverse impacts on the surrounding and adjacent areas. Under Section (2) of the

⁸⁶ RFA No. 3, Section 5.1.13, and Golden Hills Supplemental Information Report, pages 5-6.

1 standard, the Council may issue a site certificate for a wind power facility without making
2 findings of compliance with this section. However, the Council may impose site certificate
3 conditions based on the requirements of this standard.

4 The Council evaluated the Waste Minimization standard in section V.D. of the *Final Order on*
5 *the Application* and found that the facility, with conditions, addressed the Waste Minimization
6 standard. The first and second amendments to the site certificate extended the construction
7 deadlines and did not impact the Council’s previous evaluation of the Waste Minimization
8 standard. As a result, the *Final Order on Amendment No. 1* and the *Final Order on Amendment*
9 *No. 2* relied on the analysis in the *Final Order on the Application*.

10 The certificate holder states in RFA No. 3 that during facility operation, the new facility design
11 would result in similar or less waste than was previously considered due to the reduction in the
12 total number of turbines, and hence there will be fewer turbines requiring maintenance. During
13 construction, the new facility design would also result in less waste overall due to the reduction
14 in the total number of turbines. The certificate holder states that the total vehicle washdown
15 would be similar or less than previously estimated due to a net reduction in total concrete
16 needs, and waste from portable toilets would be similar or less than previously estimated.⁸⁷

17 The Council imposed four conditions in the original site certificate related to the Waste
18 Minimization standard (conditions V.D.1 to V.D.4). Those four conditions would continue to
19 apply to the facility, as amended, and includes requirements for the certificate holder to
20 develop and implement waste management plans during both construction and operations. As
21 noted in the conditions, those plans include recycling plans to reduce waste going to landfills.

22 In accordance with the findings presented here, the Department recommends that the Council
23 continue to find that the certificate holder’s plans and the existing site certificate conditions will
24 result in minimization of waste and appropriate management of any generated waste.

25 **Conclusion of Law**

26 Based on the foregoing analysis, and subject to the existing conditions in the site certificate, the
27 Department recommends the Council find that the facility, as amended, complies with the
28 Council’s Waste Minimization standard.

29 **IV.B Division 23 Standards**

30 The Division 23 standards apply only to “nongenerating facilities” as defined in ORS
31 469.503(2)(e)(K), except nongenerating facilities that are related or supporting facilities. The
32 facility is not a nongenerating facility as defined in statute and therefore Division 23 is not
33 applicable to the requested amendment.

34 **IV.C Division 24 Standards**

35 The Council’s Division 24 standards include specific standards for siting facilities including wind,
36 underground gas storage reservoirs, transmission lines and facilities that emit carbon dioxide.

⁸⁷ RFA No. 3, Section 5.1.14, and Supplemental Information Report, page 6.

1 **IV.C.1 Public Health and Safety Standards for Wind Energy Facilities: OAR 345-024-0010**

2 *To issue a site certificate for a proposed wind energy facility, the Council must find that the*
3 *applicant:*

4 (1) *Can design, construct and operate the facility to exclude members of the public from*
5 *close proximity to the turbine blades and electrical equipment.*

6 (2) *Can design, construct and operate the facility to preclude structural failure of the tower*
7 *or blades that could endanger the public safety and to have adequate safety devices and*
8 *testing procedures designed to warn of impending failure and to minimize the*
9 *consequences of such failure.*

10 **Findings of Fact**

11 OAR 345-024-0010 requires the Council to consider specific public health and safety standards
12 related to wind energy facilities. In particular, the Council must evaluate an applicant's
13 proposed measures to exclude members of the public from close proximity to the turbine
14 blades and electrical equipment, and the applicant's ability to design, construct and operate the
15 facility to prevent structural failure of the tower or blades and to provide sufficient safety
16 devices to warn of failure.

17 The Council addressed the Public Health and Safety Standard for Wind Facilities in section IV.I
18 of the *Final Order on the Application* and found that the certificate holder could design,
19 construct, and operate the facility to exclude members of the public from close proximity to the
20 turbine blades and electrical equipment. The Council further found that the certificate holder
21 could design, construct, and operate the facility to preclude structural failure of the tower or
22 blades that could endanger public safety, and to have adequate safety devices and testing
23 procedures designed to warn of impending failure and to minimize the consequences of such
24 failure. Accordingly, the Council found that the facility, with conditions, complied with this
25 standard.⁸⁸

26 The first and second amendments to the site certificate extended the construction deadlines
27 and did not impact compliance with the Public Health and Safety for Wind Energy Facilities
28 standard. As a result, the *Final Order on Amendment No. 1* and *Final Order on Amendment No.*
29 *2* relied on the analysis in the *Final Order on the Application*.

30 Subsection (1) of the standard requires the certificate holder to demonstrate that it can exclude
31 the public from close proximity to the turbine blades and electrical equipment. As noted, the
32 Council found that the certificate holder satisfied this standard in the *Final Order on the*
33 *Application*, and in order to maintain compliance, Council implemented a number of conditions
34 in the site certificate (Conditions IV.I.1 to IV.I.8). Amongst other requirements, these conditions
35 require the certificate holder to lock turbine doors and to not install exterior ladders or access
36 to the turbine blades, as well as to fence and lock substations, in order to exclude members of
37 the public from the equipment. All conditions would continue to apply to the facility, as
38 amended.

⁸⁸ Final Order on the Application, Section IV.I.

1 In response to RFA No. 3, Oregon Department of Aviation submitted two comment letters, the
2 first upon receiving the December RFA No. 3 and the second in June after reviewing the
3 supplemental information report.⁸⁹ The first letter requested that existing site certificate
4 Condition IV.I.7 remain with no changes. Existing site certificate Condition IV.I.7 requires that
5 before beginning construction, the certificate holder shall submit to the Federal Aviation
6 Administration (FAA) and the Oregon Department of Aviation a Notice of Proposed
7 Construction or Alteration identifying the proposed final locations of the turbines and related
8 or supporting facilities and shall provide a copy of this notice to the Department. The second
9 letter also requests that Condition IV.I.7 remain. In addition, the second comment letter from
10 Department of Aviation notes that RFA No. 3 requests the ability to use wind turbines up to
11 518 feet in total height. Department of Aviation's comment letter stated that by rule, any
12 object over 500 feet in height from the ground is considered an obstruction. The Department of
13 Aviation requested that if the facility selects to use turbines over 500 feet in height, that the
14 Council require an airspace study and analysis to determine if the turbines constitute a hazard
15 to air navigation. Department of Aviation noted that this study would take into consideration
16 any potential impacts in and around the Wasco State Airport as well as aircraft flying in
17 proximity to the study area.⁹⁰

18 The certificate holder responded to the Aviation letter in a comment-response memo sent to
19 the Department. In it, Golden Hills acknowledges that the FAA has issued Determinations of No
20 Hazard for the facility using turbines up to 450 feet in height, and states that in order to make
21 that determination, an airspace study and analysis was conducted. The certificate holder
22 acknowledges that it will need to resubmit materials to the FAA for another airspace study and
23 analysis if it chooses to use turbines greater than 450 feet high.⁹¹

24 Because the existing site certificate Condition IV.I.7 requires that before beginning
25 construction, the certificate holder shall submit to the FAA and the Oregon Department of
26 Aviation a Notice of Proposed Construction or Alteration identifying the proposed final
27 locations of the turbines and related or supporting facilities and shall provide a copy of this
28 notice to the Department, and because the certificate holder has acknowledged that it will
29 need to conduct an airspace study and analysis if it chooses turbines taller than 450 feet, the
30 Department recommends no changes to the existing site certificate conditions.

31 Based on the findings presented here, the Department recommends the Council continue to
32 find that the certificate holder can design, construct, and operate the facility, as amended, to
33 exclude members of the public from close proximity to the turbine blades and electrical
34 equipment.

35 Subsection (2) of the standard requires the certificate holder to demonstrate that it can design,
36 construct, and operate the facility to preclude structural failure of the tower or blades that
37 could endanger the public safety, and to have adequate safety devices and testing procedures
38 to warn of impending failure and to minimize the consequences of such failure. The Council
39 found the facility to be in compliance with subsection (2) in the original *Final Order on the*

⁸⁹ Oregon Department of Aviation, comments received by ODOE January 7, 2016 and June 2, 2016.

⁹⁰ Oregon Department of Aviation, June 2, 2016.

⁹¹ Golden Hills, Applicant Response, June 10, 2016.

1 *Application.* To maintain compliance, Council implemented a number of conditions in the site
2 certificate, including requirements for safety devices and testing procedures. In RFA No. 3, the
3 certificate holder states that the wind turbines would be from a major manufacturer, and
4 would be installed per manufacturer’s requirements, in compliance with existing Condition
5 IV.I.1. The certificate holder further states that all turbines would have automated cutoff
6 devices to shut down when wind is very strong, and that all turbines would be inspected per
7 manufacturer’s specifications. Furthermore, all turbines would have vibration sensing
8 equipment that will shut down the turbines if abnormal vibrations are detected, in accordance
9 with Condition IV.I.2. These features, in compliance with the site certificate condition,
10 demonstrate that the facility as amended can be designed, constructed, and operated in
11 compliance with this standard.

12 All existing conditions in the site certificate would continue to apply to the facility as amended.
13 Based on the analysis presented here, the Department recommends the Council continue to
14 find the facility in compliance with Public Health and Safety Standards for Wind Energy
15 Facilities.

16 **Conclusion of Law**

17 Based on the assessment above, and subject to compliance with the site certificate conditions,
18 the Department recommends that the Council find that the facility, as amended, continues to
19 comply with the Council’s Public Health and Safety Standards for Wind Energy Facilities.

20 **IV.C.2 Cumulative Effects Standards for Wind Energy Facilities: OAR 345-024-0015**

21 *To issue a site certificate for a proposed wind energy facility, the Council must find that the*
22 *applicant can design and construct the facility to reduce cumulative adverse environmental*
23 *effects in the vicinity by practicable measures including, but not limited to, the following:*

- 24 (1) *Using existing roads to provide access to the facility site, or if new roads are needed,*
25 *minimizing the amount of land used for new roads and locating them to reduce adverse*
26 *environmental impacts.*
- 27 (2) *Using underground transmission lines and combining transmission routes.*
- 28 (3) *Connecting the facility to existing substations, or if new substations are needed,*
29 *minimizing the number of new substations.*
- 30 (4) *Designing the facility to reduce the risk of injury to raptors or other vulnerable wildlife in*
31 *areas near turbines or electrical equipment.*
- 32 (5) *Designing the components of the facility to minimize adverse visual features.*
- 33 (6) *Using the minimum lighting necessary for safety and security purposes and using*
34 *techniques to prevent casting glare from the site, except as otherwise required by the*
35 *Federal Aviation Administration or the Oregon Department of Aviation*

36 **Findings of Fact**

37 The Cumulative Effects Standard for Wind Energy Facilities requires the certificate holder to use
38 practicable measures in designing and constructing the facility to reduce the cumulative

1 adverse environmental effects in the vicinity of the facility. The standard does not require the
2 Council to find that the facility would have no cumulative environmental impacts; however, the
3 Council must find that the applicant is able to use “practicable measures” in the design and
4 construction of the facility to reduce the cumulative effects.

5 The Council addressed the Cumulative Effects Standard for Wind Facilities in section IV.J of the
6 *Final Order on the Application* and found that the proposed design and construction of the
7 facility would be in compliance with the standard.

8 The first and second amendments to the site certificate extended the construction deadlines
9 and did not impact compliance with the Cumulative Effects Standard for Wind Facilities. As a
10 result, the *Final Order on Amendment No. 1* and *Final Order on Amendment No. 2* relied on the
11 analysis in the *Final Order on the Application*.

12 The certificate holder provided an assessment of compliance with the Cumulative Effects for
13 Wind Facilities standard in RFA No. 3.⁹²

14 (1) *Using existing roads to provide access to the facility site, or if new roads are needed,*
15 *minimizing the amount of land used for new roads and locating them to reduce adverse*
16 *environmental impacts.*

17 The Council previously found the facility to be in compliance with this provision of the standard
18 as the certificate holder would use existing roads to access the facility site, and would only
19 construct access roads as necessary to reach the turbine locations, substation, and other
20 related and supporting facilities. Roads would only be as long and wide as necessary. RFA No. 3
21 would reduce the total amount of turbines at the facility from what was previously approved by
22 Council, and would thus reduce the number of turbine access roads accordingly, and as such,
23 the certificate holder states that the total amount of permanent disturbance associated with
24 the facility is expected to reduce from the previously approved 141 acres to approximately 132
25 acres. However, to accommodate delivery of potentially larger turbine blades and components,
26 the certificate holder states the temporary disturbance associated with access roads is
27 expected to increase by 4 feet, from the previously considered 36 feet width to 40 feet width,
28 and the total estimated temporary disturbance would increase from the previously approved
29 1,055 acres to 1,069 acres.⁹³ These disturbances would be temporary, and existing mandatory
30 site certificate condition VIII.11 requires that all areas disturbed by construction be restored
31 and landscaped in a manner compatible with the surroundings and the proposed use, thus
32 mitigating the increased temporary impact of the amended facility.

33 (2) *Using underground transmission lines and combining transmission routes.*

34 The Council previously found the facility to be in compliance with this provision of the standard,
35 and the amendments taken under RFA No. 3 would further reduce the facility’s cumulative
36 impact on this provision by reducing the total length of new transmission line to be constructed
37 for the facility, and by using the existing Hay Canyon transmission line for part of the facility’s

⁹² RFA No. 3, Section 5.2.2.

⁹³ RFA No. 3, Section 5.2.2, Supplemental Information Report, page 3, and Supplemental Information Report, Attachment 3.

1 transmission route to connect to the BPA grid. The certificate holder states that the changes in
 2 RFA No. 3 do not affect the finding that the facility would use underground transmission lines
 3 where possible.⁹⁴

4 *(3) Connecting the facility to existing substations, or if new substations are needed,*
 5 *minimizing the number of new substations.*

6 The Council previously found the facility to be in compliance with this provision of the standard
 7 when, at the time of the original application, the facility proposed to develop two substations.
 8 As part of the proposed changes with RFA No. 3, the facility would reduce the number of new
 9 substations from two to one, thus further reducing any cumulative effects in compliance with
 10 this standard.⁹⁵

11 *(4) Designing the facility to reduce the risk of injury to raptors or other vulnerable wildlife in*
 12 *areas near turbines or electrical equipment.*

13 The Council previously found the facility to be in compliance with this provision of the standard.
 14 The proposed amendments as part of RFA No. 3 would reduce the total number of turbines
 15 used at the facility, but would use larger turbines with a wider rotor diameter. The net effects
 16 of this turbine design change, as stated by the certificate holder, is a reduction in the total rotor
 17 sweep area by approximately 19 percent, from 1.93 million square meters to 1.56 million
 18 square meters.⁹⁶

19 As was described elsewhere in this revised proposed order, the Department recommends the
 20 Council find that the facility would maintain compliance with the Council’s Fish and Wildlife
 21 Habitat standard and the Threatened and Endangered Species standard. Existing site certificate
 22 conditions, with changes as described in the respective sections of this revised proposed order,
 23 would continue to apply to the facility, including Conditions IV.L.1 to IV.L.3, related to
 24 compliance with the Threatened and Endangered Species standard, and Conditions IV.M.1 to
 25 IV.M.11, related to compliance with the Fish and Wildlife Habitat standard. The facility has been
 26 sited to reduce impacts to productive fish and wildlife habitat. As described in the Fish and
 27 Wildlife Habitat standard, and shown in Attachment 5 of the supplemental information report,
 28 of the 132 acres of anticipated permanent facility impacts, 126.7 acres would be to Category 6
 29 habitat. Of the 1,069 acres of temporary facility impacts, 1,002 acres would be to Category 6
 30 habitat.⁹⁷

31 As described in the Fish and Wildlife Habitat standard section of this revised proposed order,
 32 Irene Gilbert/FGRV commented that the Council needs to consider the facility’s potential
 33 impact to bats under the Cumulative Effects for Wind Facilities standard.⁹⁸ As noted, the
 34 Council has previously found the facility to be in compliance with this standard, and RFA No. 3
 35 would reduce the number of turbines and total rotor sweep area, thus reducing the potential
 36 impact to bats and other wildlife species. The facility is sited in an area that is mostly cultivated

⁹⁴ RFA No 3, Section 5.2.2.

⁹⁵ Id.

⁹⁶ RFA No. 3, Section 1.3.2 and Section 5.2.2.

⁹⁷ Supplemental Information Report, Attachment 5.

⁹⁸ Irene Gilbert/FOGRV Comment Letter, Comment Number 8.

1 agricultural wheat fields, and as stated in ODFW’s May 26, 2016 comment letter, the facility is
 2 thus appropriately sited and designed to avoid impacting intact wildlife habitats as is
 3 recommended by the macro-siting recommendations of the Oregon Columbia Plateau
 4 Ecoregion Wind Energy Siting and Permitting Guidelines. Finally, as described in the Fish and
 5 Wildlife Habitat standard section, the facility would have to implement a WMMP, which
 6 includes provisions for monitoring bat deaths and if established thresholds are exceeded, may
 7 require additional mitigation.

8 *(5) Designing the components of the facility to minimize adverse visual features.*

9 In the *Final Order on the Application*, Council found the facility to be in compliance with this
 10 standard, and that the facility would minimize adverse visual features. The existing conditions
 11 of the site certificate would continue to apply to the amended facility, including conditions
 12 IV.G.1 to IV.G.3, which were imposed by Council to reduce facility impacts related to the Scenic
 13 Resources standard, and, amongst other components, require the certificate holder to coat and
 14 design the facility turbines and O&M building to blend with the surrounding landscape, and to
 15 use minimal lighting as required by FAA guidelines. The amended facility would use fewer
 16 turbines, up to a maximum of 125, compared to 267, and would reduce the total amount of
 17 overhead transmission line including removing the entirety of the 500 kV line, compared to the
 18 previously approved facility. Finally, as is shown in Section IV.A.10 of this revised proposed
 19 order, the Department recommends the Council continue to find the facility, as amended,
 20 complies with the Scenic Resources standard. Based on these conclusions and conditions, the
 21 facility would be required to design the facility to minimize adverse visual features.

22 *(6) Using the minimum lighting necessary for safety and security purposes and using*
 23 *techniques to prevent casting glare from the site, except as otherwise required by the*
 24 *Federal Aviation Administration or the Oregon Department of Aviation*

25 As noted above, in the *Final Order on Application*, the Council found the facility to be in
 26 compliance with this subsection of the cumulative effects standard for wind energy facilities.⁹⁹
 27 Existing site certificate Condition IV.G.3 requires the facility turbines to have only the minimum
 28 lighting required by the FAA, and the substation and O&M facilities to have lighting that is
 29 shielded or directed downward. These conditions would continue to apply to the amended
 30 facility.

31 As demonstrated in these findings, the Department recommends the Council continue to find
 32 that that facility, as amended, complies with the Cumulative Effects Standard for Wind Energy
 33 Facilities. The Department recommends that all conditions of the existing site certificate related
 34 to this standard continue to apply.

35 **Conclusion of Law**

36 The Department recommends that the Council conclude that, subject to the existing site
 37 certificate conditions, the facility, as amended, complies with the Council’s siting Standards for
 38 Wind Energy Facilities.

⁹⁹ Final Order on Application, Section IV.J.

1 **IV.C.3 Siting Standards for Transmission Lines: OAR 345-0240-0090**

2 *To issue a site certificate for a facility that includes any transmission line under Council*
3 *jurisdiction, the Council must find that the applicant:*

4 (1) *Can design, construct and operate the proposed transmission line so that alternating*
5 *current electric fields do not exceed 9 kV per meter at one meter above the ground*
6 *surface in areas accessible to the public;*

7 (2) *Can design, construct and operate the proposed transmission line so that induced*
8 *currents resulting from the transmission line and related or supporting facilities will be*
9 *as low as reasonably achievable*

10 **Findings of Fact**

11 These standards address safety hazards associated with electric fields around transmission
12 lines. Section (1) of OAR 345-024-0090 sets a limit for electric fields from transmission lines of
13 not more than 9 kV per meter at one meter above the ground surface in areas that are
14 accessible to the public. Section (2) requires implementation of measures to reduce the risk of
15 induced current.

16 The Council addressed the Siting Standards for Transmission Lines in section IV.K of the *Final*
17 *Order on the Application*, and found the facility to be in compliance with the standard. In the
18 *Final Order on the Application*, the Council found that the certificate holder could construct and
19 operate the proposed transmission lines so that alternating current electric fields do not exceed
20 9 kV per meter at one meter above the ground surface in areas accessible to the public. The
21 Council further found that the certificate holder could design, construct and operate the
22 proposed transmission lines so that induced currents resulting from the transmission lines
23 would be as low as reasonably achievable.¹⁰⁰

24 The first and second amendments to the site certificate to extend the construction deadlines
25 did not impact the safety hazards associated with electric fields around transmission lines. As a
26 result, the *Final Order on Amendment No. 1* and *Final Order on Amendment No. 2* relied on the
27 analysis in the *Final Order on the Application*.

28 The changes as part of RFA No. 3 would remove the 500 kV transmission line, and extend the
29 230 kV transmission line for a total new construction length of approximately 5 miles. The
30 certificate holder states in RFA No. 3, Section 5.2.3, that the changes to the facility as part of
31 the requested amendment would not affect the Council's previous findings of compliance with
32 subsection (1) of this standard, and that the certificate holder would continue to be able to
33 design, construct, and operate the transmission line so that alternative current electric fields do
34 not exceed 9 kV per meter at one meter above ground surface in areas accessible to the public.
35 In the original site certificate application, Exhibit AA, and reported in the original *Final Order on*
36 *Application*, it is stated that the 230 kV transmission line would not exceed 2.4 kV per meter at
37 one meter above ground at the center of the 150-foot right of way, and would decrease to 0.4
38 kV per meter at one meter above ground at a distance of 75 feet from the center line of the

¹⁰⁰ Final Order on Application, Section IV.K.

1 right of way.¹⁰¹ These values are well below the 9 kV per meter at one meter above the ground
2 standard. The amended facility would eliminate the previously approved 500 kV transmission
3 line. The 230 kV transmission line would maintain compliance with the standard, as reviewed
4 and approved previously by Council.

5 Subsection (2) of the standard requires the Council to find that an applicant or certificate holder
6 can design, construct, and operate proposed transmission lines so that induced currents will be
7 as low as reasonably achievable. The Council previously found that the facility would comply
8 with this standard, as the certificate holder would provide appropriate grounding of fences and
9 metal-roofed buildings in order to reduce the risk of induced current.¹⁰² The certificate holder
10 states in RFA No. 3 that there are no changes that would affect the facility's ability to comply
11 with subsection (2) of the standard and maintain induced current as low as reasonable
12 achievable.¹⁰³ The Council found in the *Final Order on Application* that the facility would be
13 built to National Electric Safety Code standards, reducing risk of induced current. Because the
14 National Electric Safety Code standards have been updated since the *Final Order on the*
15 *Application*, and are reflected in OAR 345-027-0023(4)(a), the Department recommends the
16 Council impose the following condition, as amended, in the site certificate:

17 Condition VII.17: OAR 345-027-0023(4): If the facility includes any transmission line under
18 Council jurisdiction:

19 (a) The certificate holder shall design, construct and operate the transmission line in
20 accordance with the requirements of the 2012 Edition of the National Electrical Safety
21 Code ~~2007 edition~~ approved on June 3, 2011, by the American National Standards
22 Institute, and

23 The Council also imposed site certificate Condition IV.K.1, requiring the underground 34.5 kV
24 collector lines to be buried at a minimum depth of 3 feet. This condition would continue to
25 apply to the facility as amended by RFA No. 3.

26 Based on the findings presented here, the Department recommends the Council continue to
27 find that the facility, as amended, complies with the Siting Standards for Transmission Lines.
28 The Department recommends that all conditions of the existing site certificate and conditions,
29 as amended, continue to apply.

30 **Conclusion of Law**

31 For the reasons discussed above, and subject to compliance with the existing and amended
32 conditions in the site certificate, the Department recommends that the Council find that the
33 facility, as amended, complies with the Council's Siting Standards for Transmission Lines.

¹⁰¹ Application for Site Certificate, Exhibit AA, page AA-5, as referenced in the *Final Order on Application*, Section IV.K.

¹⁰² Final Order on Application, Section IV.K.

¹⁰³ RFA No. 3, Section 5.2.3.

1 **IV.D Other Applicable Regulatory Requirements Under Council Jurisdiction**

2 Under ORS 469.503(3) and the Council’s General Standard of Review (OAR 345-022-0000), the
3 Council must determine whether the facility complies with “all other Oregon statutes and
4 administrative rules..., as applicable to the issuance of a site certificate for the proposed
5 facility.” In evaluating this amendment, the Council must determine whether the proposed
6 amendment affects any finding made by the Council in earlier orders.¹⁰⁴ This section addresses
7 the applicable Oregon statutes and administrative rules that are not otherwise addressed,
8 including noise control regulations, regulations for removal or fill of material affecting waters of
9 the state, and regulations for water rights and usage.

10 **IV.D.1 Noise Control Regulations: OAR 340-035-0035**

11 *(1) Standards and Regulations:*

12 ***

13 *(b) New Noise Sources:*

14 *(A) New Sources Located on Previously Used Sites. No person owning or controlling a*
15 *new industrial or commercial noise source located on a previously used industrial or*
16 *commercial site shall cause or permit the operation of that noise source if the*
17 *statistical noise levels generated by that new source and measured at an appropriate*
18 *measurement point, specified in subsection (3)(b) of this rule, exceed the levels*
19 *specified in Table 8, except as otherwise provided in these rules. For noise levels*
20 *generated by a wind energy facility including wind turbines of any size and any*
21 *associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies.*

22 ***

23 **Findings of Fact**

24 The noise control regulations in OAR 340-035-0035 apply to noise associated with operation of
25 the facility. The Council addressed the Noise Control Regulations in section VI.A.1 of the *Final*
26 *Order on the Application*. In the original application, to represent the range of turbines that
27 could be used at the proposed facility, the applicant provided total and octave band sound
28 power level data for the worst case (loudest) scenario. To ensure that the facility as-built would
29 comply with the noise regulations, the Council adopted four conditions that required the
30 certificate holder to provide information to the Department about the turbines selected and
31 the final design layout before beginning construction. Condition VI.A.1.2 specifically requires
32 that the certificate holder submit a new noise analysis to the Department prior to construction
33 that demonstrates that the facility will be in compliance with all relevant noise related
34 requirements.¹⁰⁵ The Council found that the facility, with conditions, complied with the Noise
35 Control Regulations.¹⁰⁶

¹⁰⁴ OAR 345-027-0070(10)(c)

¹⁰⁵ The Department is recommending a clerical edit to site certificate condition VI.A.1.2 to clarify that the new noise analysis must be conducted based on the final design layout of the facility.

¹⁰⁶ Final Order on Application, Section VI.A.1.

1 The first and second amendments to the site certificate to extend the construction deadlines
2 did not impact compliance with the Noise Control Regulations. As a result, the *Final Order on*
3 *Amendment No. 1* and *Final Order on Amendment No. 2* relied on the analysis in the *Final Order*
4 *on the Application*.

5 The certificate holder provided an analysis of compliance with the noise control regulations in
6 RFA No. 3, Section 6.1. The certificate holder relies upon the Council's original findings in the
7 *Final Order on Application*, including the Council's site certificate conditions related to noise
8 compliance, in order to demonstrate that the noise control regulation standard will be satisfied.
9 As noted above, in the original *Application for Site Certificate*, Golden Hills included a "worst
10 case" noise modeling assessment to demonstrate compliance, and noted that the final facility
11 layout and turbine selection was not known at that time. In the *Final Order on Application*, the
12 Council agreed with this approach, and in order to maintain compliance with the noise control
13 regulations after the final turbine selection and facility layout is complete, Council imposed site
14 certificate conditions (specifically condition VI.A.1.2) requiring the certificate holder to
15 demonstrate that the final facility design and turbine selection will maintain compliance with
16 the DEQ noise control regulations.¹⁰⁷ The current amendment request would not change the
17 wind turbine micro-siting corridors, and though the amendment request, if approved, would
18 allow a different model of turbine to be selected, the certificate holder will still be required to
19 demonstrate that it maintains compliance with the DEQ noise control regulations as per site
20 certificate condition VI.A.1.2. The certificate holder notes in RFA No. 3 that there are a number
21 of compliance paths available to it, including moving turbines within the micro-siting corridor,
22 selecting different turbine models, or eliminating nonconforming turbines.¹⁰⁸ Existing site
23 certificate conditions VI.A.1.3 to VI.A.1.4 would also require the certificate holder to implement
24 a complaint-based monitoring program during facility operations. All existing site certificate
25 conditions would continue to apply to the facility, as amended.

26 Based on the findings presented here, the Department recommends that the facility as
27 amended, subject to the existing site certificate conditions, will not exceed the allowable noise
28 levels under the DEQ noise control regulations.

29 **Conclusion of Law**

30 For the reasons discussed above, and subject to the existing site certificate conditions, the
31 Department recommends that the Council conclude that the facility, as amended, complies
32 with the applicable DEQ noise control regulations in OAR 340-035-0035.

33 **IV.D.2 Removal-Fill Law**

34 The Oregon Removal-Fill Law (ORS 196.800 through .990) and Oregon Department of State
35 Lands (DSL) regulations (OAR 141-085-0005 through 141-085-0090) require a removal-fill
36 permit if 50 cubic yards or more of material is removed, filled or altered within any "waters of
37 the state" at the proposed site.¹⁰⁹

¹⁰⁷ Id.

¹⁰⁸ RFA No. 3, Section 6.1.

¹⁰⁹ OAR 141-085-0010(225) defines "Waters of this State." The term includes wetlands and certain other water bodies

1 **Findings of Fact**

2 The Council addressed the removal-fill law in Section VI.A.2 of the *Final Order on the*
3 *Application*, and found that the facility would not require a removal-fill permit. The first and
4 second amendments to the site certificate to extend the construction deadlines did not impact
5 the removal-fill law findings and as a result, the *Final Order on Amendment No. 1* and *Final*
6 *Order on Amendment No. 2* relied on the analysis in the *Final Order on the Application*.

7 The certificate holder addressed removal-fill requirements in Section 6.2 of RFA No. 3. The
8 certificate holder states that the amended facility would not affect compliance with the
9 removal-fill law nor would the facility as amended require a removal-fill permit. The certificate
10 holder states that prior to construction, it would conduct an updated wetland delineation to
11 confirm that the final facility design will not have any impacts to jurisdictional waters.¹¹⁰ As this
12 is a binding representation by the certificate holder, the Department recommends that the
13 Council impose a new condition to ensure that an updated wetland delineation is conducted
14 and that the final design of the facility does not impact jurisdictional waters and does not
15 require a removal-fill permit.

16 In response to RFA No. 3, DSL asked if the certificate holder had or would provide update
17 delineation reports for DSL concurrence for the new site boundary areas of the facility.¹¹¹ The
18 Department confirmed with the certificate holder that wetland and waters surveys have not
19 been conducted for the site boundary additions.¹¹² Removal-fill permits are included in and
20 governed by site certificates, and as such, if one is required, it is necessary that it be obtained
21 through the site certificate process. As such, the Department recommends that the Council
22 include a new site certificate condition requiring an updated wetland delineation report prior to
23 construction, including coverage of all areas of temporary and permanent impact. The
24 recommended condition specifies that if the reports determine that a removal-fill permit is in
25 fact required to construct and operate the facility, another site certificate amendment would
26 be necessary.

27 **Removal-Fill Condition 1:** Prior to construction, the certificate holder shall:

- 28 1) Conduct an updated wetlands and waters delineation survey of all areas to be
29 temporarily or permanently impacted by the facility based on final layout and design.
- 30 2) Submit the delineation survey report to the Department and Oregon Department of
31 State Lands and receive concurrence of the report from DSL.
- 32 3) Confirm from the results of the delineation survey and DSL concurrence that the facility
33 will not need a removal-fill permit.
- 34 4) If a removal-fill permit is necessary, file a site certificate amendment request to review
35 and process the permit request.

¹¹⁰ RFA No. 3, Section 6.2.

¹¹¹ DSL Comment Email, Heidi Hartman, December 29, 2015.

¹¹² Golden Hills Information Request response, June 2, 2016.

1 Based on the findings presented here, the Department recommends that the Council find that
2 the facility will continue to be in compliance with the removal-fill law.

3 **Conclusion of Law**

4 The Department recommends that the Council conclude that the proposed facility, as
5 amended, will continue to be in compliance with the removal-fill law.

6 **IV.D.3 Water Rights**

7 Under ORS Chapters 537 and 540 and OAR Chapter 690, OWRD administers water rights for
8 appropriation and use of the water resources of the state. Under OAR 345-022-0000(1), the
9 Council must determine whether the proposed facility would comply with these statutes and
10 administrative rules.

11 **Findings of Fact**

12 The Council addressed the Ground Water Act in section VI.A.3 of the *Final Order on the*
13 *Application*. The Council found that the facility would comply with the Ground Water Act of
14 1955 and the rules of the Water Resources Department. The first and second amendment to
15 the site certificates to extend the construction deadlines did not impact compliance with the
16 requirements of the Ground Water Act of 1955 and Water Resources Department rules. As a
17 result, the *Final Order on Amendment No. 1* and *Final Order on Amendment No. 2* relied on the
18 analysis in the *Final Order on the Application*.

19 The certificate holder addressed compliance with the Ground Water Act in Section 6.3 of RFA
20 No. 3. The certificate holder states that the amendments as part of RFA No. 3 would not change
21 the estimated quantity of water necessary to construct and operate the facility, nor would it
22 changes the source of the construction water from municipal sources at the cities of Wasco and
23 Moro. The certificate holder also states in RFA No. 3 that there would be no change to the
24 source of water during facility operation, which would come from a new well at the O&M
25 building.¹¹³

26 Based on the findings presented here, the Department recommends the Council continue to
27 find that the facility complies with the Ground Water Act of 1955 and Water Resources
28 Department rules.

29 **Conclusion of Law**

30 For the reasons discussed above, the Department recommends that the Council conclude that
31 the facility, as amended, complies with the applicable water rights statutes and regulations.

¹¹³ Under ORS 537.545(1)(f), a new water right is not required for industrial or commercial use of up to 5,000 gallons per day. The Council found in the Final Order on Application that the Golden Hills facility would not use more than 5,000 gallons per day from the onsite well at the O&M building, and therefore a new water right was not necessary. RFA No. 3 does not request any change to this finding. The provisions of ORS 537.545 require that the owner of the land on which an exempt well is drilled provide to the OWRD a map showing the exact location of the well, as well as pay a recording fee to OWRD. Additionally, ORS 537.765 requires that when a new exempt well is drilled, or an existing well is altered, converted, or abandoned, a well log containing specific information as described in ORS 537.765 must be filed with the Water Resources Commission. The applicant must independently comply with the provisions of ORS 537.454 and ORS 537.765 outside of the site certificate process.

1 **V. GENERAL APPLICATION OF CONDITIONS**

2 The conditions referenced in this revised proposed order include conditions that are specifically
3 required by OAR 345-027-0020 (Mandatory Conditions in Site Certificates), OAR 345-027-0023
4 (Site Specific Conditions), OAR 345-027-0028 (Monitoring Conditions) or OAR Chapter 345,
5 Division 26 (Construction and Operation Rules for Facilities). The conditions referenced in this
6 revised proposed order include conditions based on representations in the request for
7 amendment and the supporting record. The Department recommends that the Council deem
8 these representations to be binding commitments made by the certificate holder. This revised
9 proposed order also includes conditions that the Department recommends that the Council find
10 necessary to ensure compliance with the siting standards of OAR Chapter 345, Divisions 22 and
11 24, or to protect public health and safety.

12 In addition to all other conditions referenced or included in this revised proposed order, the
13 certificate holder is subject to all conditions and requirements contained in the rules of the
14 Council and in local ordinances and state law in effect on the date the amended site certificate
15 is executed. Under ORS 469.401(2), upon a clear showing of a significant threat to the public
16 health, safety or the environment that requires application of later-adopted laws or rules, the
17 Council may require compliance with such later-adopted laws or rules.

18 The Department recognizes that many specific tasks related to the design, construction,
19 operation and retirement of the facility would be undertaken by the certificate holder' agents
20 or contractors. Nevertheless, the certificate holder is responsible for ensuring that all agents
21 and contractors comply with all provisions of the site certificate.

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1 **VI. GENERAL CONCLUSION AND REVISED PROPOSED ORDER**

2 The requested amendment No. 3 to the Golden Hills Wind Project site certificate would:

- 3 1. Extend the construction start and completion deadlines by two years;
- 4 2. Change the allowed wind turbine type to be taller and with a larger rotor diameter, and
5 reduce the maximum number of turbines from 267 to 125;
- 6 3. Modify the related and supporting facilities to eliminate one of two previously approved
7 substations and the 11-mile, 500 kV transmission interconnection line; relocate the single
8 remaining substation to a central location within the site boundary and expand the
9 substation area from 2 to 5 acres; modify the alignment of the previously approved 230 kV
10 transmission line to run from the single substation to a BPA transmission grid connection
11 point; increase the height of six meteorological towers from 279 to 312 feet; and expand
12 the width of temporary access roads from 36 to 40 feet;
- 13 4. Amend the site boundary to remove approximately 2,800 acres of land no longer needed
14 for the facility; and,
- 15 5. Expand the site boundary by approximately 122.5 acres to allow for construction of two
16 short segments of 230 kV transmission line.

17 Based on the findings and conclusions included in this order, the Department recommends that
18 the Council make the following findings:

- 19 1. The requested amendment No. 3 to the Golden Hills Wind Project site certificate complies
20 with the requirements of the Oregon Energy Facility Siting statutes, ORS 469.300 to ORS
21 469.570 and ORS 469.590 to ORS 469.619.
- 22 2. The requested amendment No. 3 to the Golden Hills Wind Project site certificate complies
23 with the applicable standards adopted by the Council pursuant to ORS 469.501.
- 24 3. The requested amendment No. 3 to the Golden Hills Wind Project site certificate complies
25 with all other Oregon statutes and administrative rules that were included in and governed
26 by the original site certificate and are applicable to the amendment of the Golden Hills
27 Wind Project site certificate.

28 Accordingly, the Department recommends that the Council find that the proposed amendment
29 complies with the General Standard of Review (OAR 345-022-0000). The Department
30 recommends that the Council find, based on a preponderance of the evidence on the record,
31 that the site certificate may be amended as requested.

1 **Revised Proposed Order**

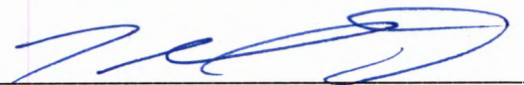
2 The Department recommends that the Council approve Amendment No. 3 and issue an
3 amended site certificate for the Golden Hills Wind Project, subject to the terms and conditions
4 set forth above.

5 Issued December 2, 2016

6 The Oregon Department of Energy

7

8

9 By: 

10 Todd R. Cornett, Assistant Director
11 Oregon Department of Energy

12

13 **Attachments**

14 Attachment A: Proposed Amended Golden Hills Wind Project Site Certificate (red-line)

15 Attachment B: Index of Comments Received on Request for Amendment 3

16 Attachment C: Raptor Nest Survey Protocol (As Approved in January 2015)

17 Attachment D: Wildlife Monitoring and Mitigation Plan (As Approved in May 2009)

18 Attachment E: Draft Habitat Mitigation and Revegetation Plan (As Approved in May 2009)

19 **Notice of the Right to Appeal**

20 [Text to be added to Final Order]

Attachment A: PROPOSED AMENDED GOLDEN HILLS SITE CERTIFICATE

*Presents red-line changes from the 2015 amended site certificate
to the proposed amended site certificate

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~~SECOND-THIRD~~ AMENDED SITE CERTIFICATE

FOR THE
GOLDEN HILLS WIND PROJECT

Issued by

OREGON ENERGY FACILITY SITING COUNCIL
625 Marion Street NE
Salem, OR 97301-3737

PHONE: 503-378-4040
FAX: 503-373-7806

Amending the
Site Certificate for the Golden Hills Wind Project
~~Of May 18, 2012~~ of February 11, 2015

DATE

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~~SECOND~~ THIRD AMENDED SITE CERTIFICATE
FOR THE
GOLDEN HILLS WIND PROJECT

I. INTRODUCTION

This site certificate for the Golden Hills Wind Project (“Golden Hills”) is issued and executed in the manner provided by ORS Chapter 469, by and between the State of Oregon (the “State”), acting by and through its Energy Facility Siting Council (the “Council”), and Golden Hills Wind Farm LLC (“GHWF” or the “certificate holder”).

The findings of fact, reasoning, and conclusions of law underlying the terms and conditions of this site certificate are set forth in the Council’s Final Order in the Matter of the Application for a Site Certificate for the Golden Hills Wind Project (the “Final Order on the Application” or “Final Order”) issued on May 15, 2009, the Council’s Final Order in the Matter of the Request for Amendment #1 of the Site Certificate for the Golden Hills Wind Project (“Final Order on Amendment #1”) issued May 11, 2012, the Council’s Final Order in the Matter of the Request for Amendment #2 of the Site Certificate for the Golden Hills Wind Project (“Final Order on Amendment #2”), issued January 30, 2015, and the Council’s Final Order in the Matter of the Request for Amendment #3 of the Site Certificate for the Golden Hills Wind Project (“Final Order on Amendment #3”), issued TBD, and incorporated herein by this reference. In interpreting ~~this~~ the amended site certificate, any ambiguity shall be clarified by reference to the following, in order of priority: (1) this amended site certificate; (2) the Final Order on Amendment #~~32~~; (3) the Final Order on Amendment #~~21~~; (4) the Final Order on Amendment #1; (54) the Final Order on the Application; and (65) the record of the proceedings that led to all the Final Orders.

The definitions used in ORS 469.300 and OAR 345-001-0010 apply to terms used in this site certificate, except where otherwise stated or where the context clearly indicates otherwise.

II. SITE CERTIFICATION

1. To the extent authorized by State law and subject to the conditions set forth herein, the State approves and authorizes the certificate holder to construct, operate and retire a wind energy facility, together with certain related or supporting facilities, at the site in Sherman County, Oregon, as described in Section III of this site certificate. ORS 469.401(1).
2. This site certificate is effective until it is terminated under OAR 345-027-0110 or the rules in effect on the date that termination is sought, or until the site certificate is revoked under ORS 469.440 and OAR 345-029-0100 or the statutes and rules in effect on the date that revocation is ordered. ORS 469.401(1).
3. This site certificate does not address, and is not binding with respect to, matters that were not addressed in the Council’s Final Order on the Application for the facility or any of the subsequent Final Orders on Amendment Requests. Such matters include, but are not

1 limited to: (1) building code compliance; wage, hour and other labor regulations; local
2 government fees and charges; and other design or operational issues that do not relate to
3 siting the facility (ORS 469.401(4)); and (2) permits issued under statutes and rules for which
4 the decision on compliance has been delegated by the federal government to a State
5 agency other than the Council. ORS 469.503(3).

6 4. Both the State and the certificate holder shall abide by local ordinances and State law and
7 the rules of the Council in effect on the date this site certificate is executed. ORS 469.401(2).
8 In addition, upon a clear showing of a significant threat to the public health, safety or the
9 environment that requires application of later-adopted laws or rules, the Council may
10 require compliance with such later-adopted laws or rules. ORS 469.401(2).

11 5. For a permit, license, or other approval addressed in and governed by this site certificate,
12 the certificate holder shall comply with applicable State and federal laws adopted in the
13 future to the extent that such compliance is required under the respective State agency
14 statutes and rules. ORS 469.401(2).

15 6. Subject to the conditions herein, this site certificate binds the State and all counties, cities
16 and political subdivisions in Oregon as to the approval of the site and the construction,
17 operation and retirement of the facility as to matters that are addressed in and governed by
18 this site certificate. ORS 469.401(3).

19 7. Each affected State agency, county, city and political subdivision in Oregon with authority to
20 issue a permit, license or other approval addressed in or governed by this site certificate
21 shall, upon submission of the proper application and payment of the proper fees, but
22 without hearings or other proceedings, issue such permit, license or other approval subject
23 only to conditions set forth in this site certificate. ORS 469.401(3).

24 8. After issuance of this site certificate, each State agency or local government agency that
25 issues a permit, license or other approval for the facility shall continue to exercise
26 enforcement authority over such permit, license or other approval. ORS 469.401(3).

27 9. After issuance of this site certificate, the Council shall have continuing authority over the
28 site and may inspect, or direct the Oregon Department of Energy (“ODOE” or the
29 “Department”) to inspect, or request another State agency or local government to inspect,
30 the site at any time in order to ensure that the facility is being operated consistently with
31 the terms and conditions of this site certificate. ORS 469.430.

32 III. DESCRIPTION

33 A. THE FACILITY

34 1. The Energy Facility

35 ORS 469.300(11)(a)(J) defines the “energy facility” in this case as ~~lain-an~~ electric power
36 generating plant with an average electric generating capacity of 35 megawatts or more if the

1 power is produced from ... wind energy at a single energy facility.” The proposed “electric
2 power generating plant” would consist of up to ~~125267~~ wind turbine locations, each consisting
3 of a turbine tower and foundation, turbine pad area, nacelle, rotor and blade assembly, and
4 step-up transformer. Wind turbines would be placed in micrositing survey corridors as shown in
5 the Application for a Site Certificate. A map of the site boundary, including micrositing
6 corridors, is included as Attachment A to this site certificate. Golden Hills would have a peak
7 electric generating capacity of up to 400 MW and an average electric generating capacity of
8 about 133-MW.

9 GHWF has not yet selected the wind turbine model or models that would be installed in the
10 facility. GHWF ~~is request~~eding a site certificate that would allow the installation of up to
11 ~~125-267 GE sle 1.5-MW turbines or any combination of turbines subject to specific restrictions.~~
12 ~~Under maximum conditions, with~~ turbine towers measuring would measure up to ~~95-80~~
13 ~~(3125263~~ feet) at the rotor hub, ~~and~~ the diameter of the rotor-swept area measuring up to
14 ~~would be 126-96~~ meters (~~413315~~ feet), and the total maximum turbine height measuring up to
15 158 meters (518 feet).

16 A wind turbine features a nacelle mounted on a tubular steel tower. The nacelle houses the
17 generator and gearbox and supports the rotor and blades at the hub. The turbine tower
18 supports and provides access to the nacelle. Each turbine unit sits on a concrete pad that
19 accommodates the turbine pedestal, a step-up transformer and a turnout area for service
20 vehicles. The purpose of the step-up transformer is to increase the output voltage of the wind
21 turbine to the voltage of the power collection system. Underlying the pad would be a deep
22 concrete turbine foundation with a surface area dependent upon the type and size of wind
23 turbine selected.

24 2. Related or Supporting Facilities

25 GHWF proposes to construct the following related or supporting facilities:

- 26 • Power collection system
- 27 • Substation~~s~~
- 28 • 230 kV transmission line
- 29 • ~~500-kV transmission line~~
- 30 • Meteorological towers
- 31 • Supervisory Control and Data Acquisition (“SCADA”) System
- 32 • O&M facility
- 33 • Access roads
- 34 • Temporary laydown areas

35 **Power Collection System.** About ~~62-55~~ miles of power collection system, operating at 34.5 kV,
36 would transport the power from the wind turbines to the substation~~s~~. Some portion of the
37 power collection system may be installed above ground to avoid impacts or to accommodate
38 unforeseen geotechnical conditions.

1 **Substations.** The ~~proposed~~ facility would include ~~two one~~ substations, located near the center
2 ~~one in the eastern section~~ of the Golden Hills site ~~and another in the western section of the~~
3 ~~Golden Hills site.~~ Each ~~The~~ substation would occupy a grveled and fenced area about 2.5 acres
4 in size to facilitate ~~a~~ transformers, switching equipment and a parking area.

5 **230-kV Transmission Line.** An approximately 5-mile, 230 –kV transmission line would
6 interconnect ~~The substation in the eastern section of the Golden Hills site would interconnect~~
7 ~~with an to the~~ existing Hay Canyon 230 –kV PPM Energy transmission line ~~by means of an~~
8 aboveground 0.7 mile 230 –kV transmission line. From there, electricity would be transmitted
9 using the existing Hay Canyon 230 –kV line to the northern-most transmission pole structure
10 near the existing Klondike Substation where up to approximately 700 feet of new 230–kV
11 transmission line would be constructed along with associated structures and equipment
12 necessary to interconnect the facility to Bonneville Power Administration’s (BPA’s) transmission
13 structure located approximately 300 feet north of the Klondike Substation.

14 **500-kV Transmission Line.** ~~The substation in the western section of the Golden Hills site would~~
15 ~~interconnect with the existing BPA John Day Substation by means of an aboveground 500-kV~~
16 ~~transmission line about 11 miles long.~~

17 **Meteorological Towers.** GHWF proposes to install up to six permanent meteorological towers
18 (“met towers”). The met towers would be unguyed tubular structures about ~~85-95~~ meters (~~279~~
19 312 -feet) tall and set in concrete foundations.

20 **SCADA System.** A fiber optic communications network would link the wind turbines to a central
21 computer at the O&M facility. The SCADA system would collect operating and performance
22 data from each wind turbine and Golden Hills as a whole and provide for remote operation of
23 the wind turbines.

24 **O&M Facility.** A 5,000-square-foot operations and maintenance (“O&M”) building would be
25 constructed at one or the other of two locations proposed by GHWF. The O&M building would
26 house office and workshop areas, a control room for the SCADA system, and a kitchen,
27 bathroom and shower. The ~~5~~ five-acre O&M facility site would include parking for vehicles.
28 Domestic water use would not exceed 5,000 gallons per day, and domestic water would be
29 obtained from an on-site well. Domestic wastewater would be drained into an on-site septic
30 system.

31 **Access Roads.** Approximately ~~50-41~~ 50-41 miles of new roads would be constructed to provide access
32 to the turbine strings and other facility components. Access roads would connect to grveled
33 turbine pad areas at the base of each wind turbine. The roads would be 20 feet wide and
34 constructed with crushed gravel. In addition, GHWF would improve and widen some existing
35 county and farm roads.

36 **Temporary Laydown Areas.** Up to seven principal, temporary laydown areas would be used to
37 stage construction and store supplies and equipment during construction. In addition,
38 temporary laydown areas would be required at the base of each ~~proposed~~ wind turbine. The

1 laydown areas would be covered with gravel, and the gravel would be removed and the areas
2 would be restored to their pre-construction conditions following completion of construction.

3 The certificate holder shall satisfy the following administrative condition:

4 (III.A.1) The certificate holder shall construct a facility substantially as described in the
5 site certificate and may select up to 125 GE 1.5 megawatt or some
6 ~~combination of other~~ turbines, subject to the following restrictions and
7 compliance with other site certificate conditions. Before beginning construction,
8 the certificate holder shall provide to the Department a description of the
9 turbine types selected for the facility demonstrating compliance with this
10 condition.

11 (a) The total number of turbines at the facility must not exceed ~~267~~125
12 turbines.

13 (b) The combined peak generating capacity of the facility must not exceed
14 400 megawatts.

15 (c) The turbine hub height must not exceed ~~95~~80 meters and the maximum
16 blade tip height must not exceed ~~128~~158 meters.

17 (d) The minimum blade tip clearance must be ~~19.832~~ meters above ground.

18 (e) The maximum combined weight of metals in the tower (including ladders
19 and platforms) and nacelle must not exceed ~~324~~336 U.S. tons per
20 turbine.

21 (f) ~~The certificate holder shall request an amendment of the site certificate~~
22 ~~to increase the combined peak generating capacity of the facility beyond~~
23 ~~400 megawatts, to increase the number of wind turbines to more than~~
24 ~~267 turbines, to install wind turbines with a hub height greater than 80~~
25 ~~meters or a blade tip height greater than 128 meters, or to install~~
26 ~~turbines with a maximum combined weight of metals in the tower~~
27 ~~(including ladders and platforms) and nacelle greater than 324 U.S. tons~~
28 ~~per turbine.~~

29 B. LOCATION OF THE FACILITY

30 The facility will occupy about ~~2930,000~~29,500 acres and be located near Wasco in Sherman
31 County, Oregon. More particularly, the site would occupy portions of Sections 1-17, Township 1
32 South, Range 17 East, Sections 6-7, Township 1 South, Range 18 East, Sections 29-31, Township
33 1 North, Range 18 East, Sections 5-9, 14-23, and 25-36, Township 1 North, Range 17 East,
34 Sections 1-3, 12-14, 23-26, and 35-36, Township 1 North, Range 16 East, Sections 29-32,
35 Township 2 North, Range 17 East, Sections 25-27 and 34-36, Township 2 North, Range 16 East.
36 Attachment A of this site certificate contains a map of the site boundary. Sections 9, 10, 14 16,
37 22 26 and 34 36, Township 2 North, Range 16 East; Sections 29 32, Township 2 North, Range
38 17 East; Sections 1 3, 13, 24, 25 and 36, Township 1 North, Range 16 East; Sections 5 8, 14 22,

~~25 and 27-36, Township 1 North, Range 17 East; Sections 1-14, 16 and 17, Township 1 South, Range 17 East; and Sections 6-8, Township 1 South, Range 18 East, Willamette Meridian, Sherman County, Oregon.~~

C. THE SITE AND SITE BOUNDARY

The certificate holder shall satisfy the following administrative condition:

(III.C.1) Before beginning construction, but not more than two years before beginning construction, and after considering all micrositng factors, the certificate holder shall provide to the Department, the Oregon Department of Fish and Wildlife (“ODFW”) and the Planning Director of Sherman County detailed maps of the facility site, showing the final locations where the certificate holder proposes to build facility components and a table showing the acres of temporary and permanent habitat impact by habitat category and subtype. The maps shall include the locations of temporary laydown areas and areas of temporary ground disturbance associated with the construction of all Ffacility componentstransmission lines. The detailed maps of the final facility layout site shall indicate the habitat categories of all areas that would be affected during construction. In classifying the affected habitat into habitat categories, the certificate holder shall consult with ODFW. The certificate holder shall not begin ground disturbance in an affected area until the habitat assessment has been approved by the Department. The Department may employ a qualified contractor to confirm the habitat assessment by on-site inspection.

D. CONSTRUCTION DEADLINES

The certificate holder shall satisfy the following administrative conditions:

(III.D.1) The certificate holder shall begin construction of the facility within by June 18, 201~~86~~. Under OAR 345-015-0085(9), an amended site certificate is effective upon execution by the Council Chair and the applicantcertificate holder. The Council may grant an extension of the deadline to begin construction in accordance with OAR 345-027-0030 or any successor rule in effect at the time the request for extension is submitted. [Updated for Amendment No. 32]

(III.D.2) The certificate holder shall complete construction of the facility by June 18, 2021~~19~~. Construction is complete when (1) the facility is substantially complete as defined by the certificate holder’s construction contract documents; (2) -acceptance testing has been satisfactorily completed; and (3) the energy facility is ready to begin continuous operation consistent with the site certificate. The certificate holder shall promptly notify the Department of the date of completion of construction. The Council may grant an extension of the deadline for completing construction in accordance with OAR 345-027-0030 or any

1 successor rule in effect at the time the request for extension is submitted.

2 [Updated for Amendment No. 32]

3 (III.D.3) Before beginning construction, the certificate holder shall notify the Department
4 in advance of any work on the site that does not meet the definition of
5 “construction” in ORS 469.300(6), excluding surveying, exploration or other
6 activities to define or characterize the site, and shall provide to the Department
7 a description of the work and evidence that its value is less than \$250,000.

8 **IV. SPECIFIC FACILITY CONDITIONS**

9 The conditions listed in this section include conditions based on representations in the
10 Application for a Site Certificate, Requests for Amendments 1, 2, and 3, and all supporting
11 records. These conditions are required under OAR 345-027-0020(10). The certificate holder
12 must comply with these conditions in addition to the conditions listed in Sections III, V, VI and
13 VII. This section includes other specific facility conditions the Council finds necessary to ensure
14 compliance with the siting standards of OAR Chapter 345, Divisions 22 and 24, and to protect
15 the public health and safety. For conditions that require subsequent review and approval of a
16 future action, ORS 469.402 authorizes the Council to delegate the future review and approval
17 to the Department if, in the Council’s discretion, the delegation is warranted under the
18 circumstances of the case.

19 **A. [PLACEHOLDER]**

20 **B. ORGANIZATIONAL EXPERTISE**

21 (IV.B.1) The certificate holder shall report promptly to the Department any change in its
22 corporate relationship with Orion Renewable Energy Group LLC. The certificate
23 holder shall report promptly to the Department any change in its access to the
24 resources, expertise and personnel of Orion Renewable Energy Group LLC.

25 (IV.B.2) Before beginning construction, the certificate holder shall notify the Department
26 of the identity and qualifications of the major design, engineering and
27 construction contractor(s) for the facility. The certificate holder shall select
28 contractors that have substantial experience in the design, engineering and
29 construction of similar facilities. The certificate holder shall report to the
30 Department any change of major contractors.

31 (IV.B.3) If the certificate holder chooses a third-party contractor to operate the facility,
32 the certificate holder shall submit to the Council the identity of the contractor so
33 the Council may review the qualifications and capability of the contractor to
34 meet the standards of OAR 345-022-0010. If the Council finds that a new
35 contractor meets these standards, the Council shall not require an amendment
36 to the site certificate for the certificate holder to hire the contractor.

- 1 (IV.B.4) Any matter of noncompliance under the site certificate shall be the responsibility
2 of the certificate holder. Any notice of violation issued under the site certificate
3 shall be issued to the certificate holder. Any civil penalties assessed under the
4 site certificate shall be levied on the certificate holder.
- 5 (IV.B.5) The certificate holder shall contractually require the engineering and
6 procurement contractor and all independent contractors and subcontractors
7 involved in the construction and operation of the facility to comply with all
8 applicable laws and regulations and with the terms and conditions of the site
9 certificate. Such contractual provision shall not operate to relieve the certificate
10 holder of responsibility under the site certificate.
- 11 (IV.B.6) The certificate holder shall obtain, or shall ensure that its contractors obtain,
12 necessary federal, State and local permits or approvals required for the
13 construction, operation and retirement of the facility. The certificate holder shall
14 work with local and State fire officials to ensure compliance with all fire code
15 regulations regarding public buildings.
- 16 (IV.B.7) During construction, the certificate holder shall have an on-site assistant
17 construction manager who is qualified in environmental compliance to ensure
18 compliance with all construction-related site certificate conditions. During
19 operation, the certificate holder shall have a facility manager who is qualified in
20 environmental compliance to ensure compliance with all ongoing site certificate
21 conditions. The certificate holder shall notify the Department of the name,
22 telephone number, fax number and e-mail address of these managers and shall
23 keep the Department informed of any change in this information.
- 24 (IV.B.8) Within 72 hours after discovery of conditions or circumstances that may violate
25 the terms or conditions of the site certificate, the certificate holder shall report
26 the conditions or circumstances to the Department.

27 **C. RETIREMENT AND FINANCIAL ASSURANCE**

- 28 (IV.C.1) The certificate holder shall retire the facility if the certificate holder permanently
29 ceases construction or operation of the facility. The certificate holder shall retire
30 the facility according to a final retirement plan approved by the Council, as
31 described in OAR 345-027-0110, and prepared pursuant to Condition (IV.C.2).
- 32 (IV.C.2) Two years before closure of the energy facility, the certificate holder shall submit
33 to the Department a proposed final retirement plan for the facility and site,
34 pursuant to OAR 345-027-0110, including:
- 35 (a) A plan for retirement that provides for completion of retirement within
36 two years after permanent cessation of operation of the energy facility
37 and that protects the public health and safety and the environment;

1 (b) A description of actions the certificate holder proposes to take to restore
2 the site to a useful, non-hazardous condition suitable for agricultural use;
3 and

4 (c) A detailed cost estimate, a comparison of that estimate with the dollar
5 amount secured by a bond or letter of credit and any amount contained
6 in a retirement fund, and a plan for assuring the availability of adequate
7 funds for completion of retirement.

8 (IV.C.3) The certificate holder shall prevent the development of any conditions on the
9 site that would preclude restoration of the site to a useful, non-hazardous
10 condition to the extent that prevention of such site conditions is within the
11 control of the certificate holder.

12 (IV.C.4) Before beginning construction, the certificate holder shall submit to the State
13 through the Council a bond or letter of credit in the amount described herein
14 naming the State, acting by and through the Council, as beneficiary or payee. If
15 the certificate holder elects to build the facility in a single phase, the initial bond
16 or letter of credit amount is ~~\$14,084,425,000~~ ~~\$16,491,000~~ (in 2008 dollars),
17 adjusted to the date of issuance as described in (b), or the amount determined
18 as described in (a). If the certificate holder elects to build the facility in more
19 than one phase, the amount of the initial bond or letter of credit for each phase
20 of construction shall be the amount determined as described in (a). The
21 certificate holder shall adjust the amount of each bond or letter of credit on an
22 annual basis thereafter as described in (b).

23 (a) The certificate holder may adjust the amount of each bond or letter of
24 credit based on the final design configuration of the facility by applying
25 the unit costs and general costs illustrated in Table IV.C.1 of the Final
26 Order on the Application to the final design and calculating the financial
27 assurance amount as described in that order, adjusted to the date of
28 issuance as described in (b) and subject to approval by the Department.

29 (b) The certificate holder shall adjust the amount of each bond or letter of
30 credit, using the following calculation and subject to approval by the
31 Department:

32 (i) Adjust the subtotal component of the bond or letter of credit
33 amount (expressed in 2008 dollars) to present value, using the
34 U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight,
35 as published in the Oregon Department of Administrative
36 Services' "Oregon Economic and Revenue Forecast" or by any
37 successor agency (the "Index") and using the annual average
38 index value for 2008 dollars and the quarterly index value for the
39 date of issuance of the new bond or letter of credit. If at any time
40 the Index is no longer published, the Council shall select a
41 comparable calculation to adjust 2008 dollars to present value.

- 1 (ii) Calculate the adjusted performance bond amount as 1 percent of
2 the new subtotal (i).
- 3 (iii) Add the subtotal (i) to the adjusted performance bond amount
4 (ii) for the adjusted gross cost.
- 5 (iv) Calculate the adjusted administration and project management
6 costs as 10 percent of the adjusted gross cost (iii).
- 7 (v) Calculate the adjusted future developments contingency as
8 10 percent of the adjusted gross cost (iii).
- 9 (vi) Add the adjusted gross cost (iii) to the sum of adjusted
10 administration and project management costs (iv) and the
11 adjusted future developments contingency (v) and round the
12 resulting total to the nearest \$1,000 to determine the adjusted
13 financial assurance amount.
- 14 (c) The certificate holder shall use a form of bond or letter of credit
15 approved by the Council.
- 16 (d) The certificate holder shall use an issuer of the bond or letter of credit
17 approved by the Council.
- 18 (e) The certificate holder shall describe the status of the bond or letter of
19 credit in the annual report submitted to the Council under Condition
20 (VII.21.a.ii).
- 21 (f) The bond or letter of credit shall not be subject to revocation or
22 reduction before retirement of the facility site.
- 23 (IV.C.5) If the certificate holder elects to use a bond to meet the requirements of
24 Condition (IV.C.4), the certificate holder shall ensure that the surety is obligated
25 to comply with the requirements of applicable statutes, Council rules and this
26 site certificate when the surety exercises any legal or contractual right it may
27 have to assume construction, operation or retirement of the energy facility. The
28 certificate holder shall also ensure that the surety is obligated to notify the
29 Council that it is exercising such rights and to obtain any Council approvals
30 required by applicable statutes, Council rules and this site certificate before the
31 surety commences any activity to complete construction, operate or retire the
32 energy facility.
- 33 (IV.C.6) The certificate holder shall report to the Department any release of hazardous
34 substances, pursuant to Oregon Department of Environmental Quality (“DEQ”)
35 regulations, within one working day after the discovery of such release. This
36 obligation shall be in addition to any other reporting requirements applicable to
37 such a release.

- 1 (IV.C.7) If the certificate holder has not remedied a release consistent with applicable
2 Oregon DEQ standards within six months after the date of the release, the
3 certificate holder shall submit to the Council for its approval an independently
4 prepared estimate of the additional cost of remediation or correction within
5 such six-month period.
- 6 (a) Upon approval of an estimate by the Council, the certificate holder shall
7 increase the amount of its bond or letter of credit by the amount of the
8 estimate.
- 9 (b) In no event, however, shall the certificate holder be relieved of its
10 obligation to exercise all due diligence in remedying a release of
11 hazardous substances.
- 12 (IV.C.8) All funds received by the certificate holder from the salvage of equipment and
13 buildings shall be committed to the restoration of the energy facility site to the
14 extent necessary to fund the approved site restoration and remediation.
- 15 (IV.C.9) The certificate holder shall pay the actual cost to restore the site to a useful,
16 non-hazardous condition at the time of retirement, notwithstanding the
17 Council's approval in the site certificate of an estimated amount required to
18 restore the site.
- 19 (IV.C.9) If the Council finds that the certificate holder has permanently ceased
20 construction or operation of the facility without retiring the facility according to a
21 final retirement plan approved by the Council, as described in OAR 345-027-0110
22 and prepared pursuant to Condition (IV.C.2), the Council shall notify the certificate
23 holder and request that the certificate holder submit a proposed final retirement
24 plan to the Department within a reasonable time not to exceed 90 days.
- 25 (a) If the certificate holder does not submit a proposed final retirement plan
26 by the specified date or if the Council rejects the retirement plan that the
27 certificate holder submits, the Council may direct the Department to
28 prepare a proposed a final retirement plan for the Council's approval.
- 29 (b) Upon the Council's approval of the final retirement plan prepared
30 pursuant to (a), the Council may draw on the bond or letter of credit
31 described in Condition (IV.C.4) and shall use the funds to restore the site
32 to a useful, non-hazardous condition according to the final retirement
33 plan, in addition to any penalties the Council may impose under OAR
34 Chapter 345, Division 29.
- 35 (c) If the amount of the bond or letter of credit is insufficient to pay the
36 actual cost of retirement, the certificate holder shall pay any additional
37 cost necessary to restore the site to a useful, non-hazardous condition.

1 (d) After completion of site restoration, the Council shall issue an order to
2 terminate the site certificate if the Council finds that the facility has been
3 retired according to the approved final retirement plan.

4 **D. LAND USE**

5 (IV.D.1) The certificate holder shall construct the public road improvements described in
6 the Application for a Site Certificate to meet or exceed road standards for the
7 road classifications in the County's Transportation System Plan and Zoning
8 Ordinance because roads will require a more substantial section to bear the
9 weight of the vehicles and turbine components than would usually be
10 constructed by the County.

11 (IV.D.2) The certificate holder shall ensure that no equipment or machinery is parked or
12 stored on any county road except while in use.

13 (IV.D.3) The site certificate holder shall, in consultation with affected landowners, design
14 and construct private access roads to minimize the division of existing farm units.

15 (IV.D.4) The certificate holder shall not locate any aboveground facility structure
16 (including wind turbines, O&M building, substations and met towers, but not
17 including aboveground power collection and transmission lines and poles and
18 junction boxes) within 50 feet from any property line or within 50 feet from the
19 right of way of any arterial or major collector road.

20 (IV.D.5) Aboveground transmission line structures shall not occupy areas that show gross
21 indicators of landslide activity or marginal stability.

22 (IV.D.6) Collector lines in the Natural Hazards Combining Zone ("NH zone") shall be
23 placed under ground except in instances where it is more practical to install
24 aboveground power collection lines and provided that the aboveground power
25 collection lines will be designed to minimize slope stability and other NH zone
26 hazards. The site-specific geotechnical investigation required prior to
27 construction shall address native soil and bedrock stability concerns at cuts, fills
28 and culvert crossings, and shall include design and construction
29 recommendations to minimize the potential for destabilizing marginally stable
30 slopes and the potential for stream erosion.

31 (IV.D.7) Prior to start of construction, the certificate holder shall submit for Sherman
32 County Planning Department concurrence the plans and profiles described at
33 SCZO 3.7.5(e).

34 (IV.D.8) Construction staging areas shall be limited to areas outside the Natural Hazards
35 CombiningNH zZone.

- 1 (IV.D.9) Roads or streets in the ~~HH~~Natural Hazards Combining Z-zone shall be stabilized
2 by planking, gravel or pavement as deemed necessary, and roadways shall be
3 built without installation of excessive fill, diversion of water or excessive cuts
4 unless the site investigation determines that such conditions will not be
5 detrimental to the area or create unwarranted maintenance problems or
6 additional hazards.
- 7 (IV.D.10) The certificate holder shall locate access roads and temporary construction
8 laydown and staging areas, including those associated with construction of
9 transmission lines or placement of conductors on third-party transmission lines,
10 to minimize disturbance with farming practices and, wherever feasible, as
11 determined in consultation with affected landowners, shall place turbines and
12 transmission interconnection lines along the margins of cultivated areas to
13 reduce the potential for conflict with farm operations. The certificate holder
14 shall place aboveground transmission and collector lines and poles and junction
15 boxes along property lines and public road rights-of-way to the extent
16 practicable.
- 17 (IV.D.11) During operation of the facility, the certificate holder, in cooperation with
18 landowners, shall avoid impact on cultivated land to the extent reasonably
19 possible when performing facility repair and maintenance activities.
- 20 (IV.D.12) Where necessary and feasible, the certificate holder shall provide access across
21 construction trenches to fields within the facility site and otherwise provide
22 adequate and timely access to properties during critical periods in the farming
23 cycle, such as harvest.
- 24 (IV.D.13) Before beginning construction of the facility, the certificate holder shall record a
25 Farm Management Easement covering the properties on which the certificate
26 holder locates wind power generation facilities. The certificate holder shall
27 record the easements in the real property records of Sherman County and shall
28 file a copy of the recorded easement with the Sherman County Planning
29 Director.
- 30 (IV.D.14) The certificate holder shall remove from Special Farm Assessment the portions
31 of parcels on which facilities are located and shall pay all property taxes due and
32 payable after the Special Farm Assessment is removed from such properties.
- 33 (IV.D.15) Within 90 days after beginning operation, the certificate holder shall provide to
34 the Department and to the Sherman County Planning Director the actual latitude
35 and longitude location or Stateplane NAD 83(91) coordinates of each turbine
36 tower, connecting lines and transmission lines. In addition, the certificate holder
37 shall provide to the Department and to the Sherman County Planning Director, a
38 summary of as-built changes in the facility compared to the original plan, if any.

- 1 (IV.D.16) The certificate holder shall work with the Sherman County Weed Control
2 manager to take appropriate measures to prevent the invasion, during and after
3 the facility's construction, of any weeds on the Sherman County noxious weed
4 list.
- 5 (IV.D.17) The certificate holder shall cooperate with the Sherman County Road
6 Department to ensure that any unusual damage or wear caused by the use of
7 the county's roads by the developer during the construction of the facility will be
8 the responsibility of the developer. The Road Department will provide an
9 assessment of road conditions in the facility area prior to the start of
10 construction of the facility and an evaluation of the roads following completion
11 of the facility to determine any significant change in condition. In addition, no
12 equipment or machinery of the developers shall be parked or stored on any
13 county road except while in use.
- 14 (IV.D.18) Prior to start of construction, the certificate holder shall, in consultation with
15 Sherman County, assign a 9-1-1 5-digit rural address to every tower road that
16 intersects a State or county road. The county will provide and install the signage
17 for these addresses.
- 18 (IV.D.19) Prior to beginning construction, the certificate holder will:
- 19 (a) Designate a route or routes for the transport of wind turbine construction
20 material (including water, aggregate, concrete, machinery and tower
21 pieces), with the intention of minimizing damage to non-designated roads,
22 and provide these designations to the County Road Master;
- 23 (b) Provide to the County Road Master a written summary of possible
24 anticipated road damage to the designated route or routes, and an
25 estimate of the cost of repair to the designated route or routes;
- 26 (c) Establish and maintain an escrow account for so long as construction is
27 ongoing, funded in an amount equal to the estimated cost to repair the
28 designated route or routes consistent with the estimate provided in (b);
29 and
- 30 (d) Conduct an inspection of the roads along the designated route or routes
31 before and after construction with a representative of the Sherman
32 County Road Department and an independent third party with the
33 required expertise to inspect and evaluate paved and graveled roads. In
34 the event a dispute arises, the third party shall be the final arbiter. The
35 cost of the hiring of the third party shall be borne by the applicant.
- 36 (IV.D.20) Before beginning construction of facility access roads, the certificate holder shall
37 confer with the Sherman County Road Master regarding any utility permits
38 needed for county road right-of-ways and obtain permits for construction of all

1 approach roads onto county roads, all in accordance with Sherman County
2 Ordinance No. 35-2007.

3 (IV.D.21) The certificate holder shall comply with Sherman County Zoning Ordinance
4 Section 4.14.4, Access Connection and Driveway Design, in connection with
5 construction of the O&M facility and substations.

6 (IV.D.22) Prior to construction, Certificate Holder shall demonstrate that the final location
7 of turbines within the micro-siting corridors approved by the Council will satisfy
8 setback requirements prescribed by Section 4 of the Sherman County Wind
9 Setback Ordinance (Ordinance No. 39-2007) unless the Council or Oregon
10 Department of Energy has approved a variance to such setback for the turbine or
11 the Certificate Holder has negotiated a setback agreement with the affected
12 adjacent property owner or wind project developer. [Amendment #1]

13 **E. SOIL PROTECTION**

14 (IV.E.1) The certificate holder shall conduct all construction work in compliance with an
15 Erosion and Sediment Control Plan (the "ESCP") satisfactory to the Oregon DEQ
16 and as required under the National Pollutant Discharge Elimination System
17 Storm Water Discharge General Permit #1200-C. The certificate holder shall
18 include in the ESCP any procedures necessary to meet local erosion and
19 sediment control requirements or storm water management requirements.

20 (IV.E.2) Where temporary impacts will occur in cultivated areas, the certificate holder
21 shall salvage approximately three feet of topsoil and stockpile this topsoil in
22 windrows. The certificate holder shall protect the windrows with plastic sheeting
23 or mulch. Upon removal of the temporary features, the certificate holder shall
24 cultivate the subsoil to a depth of at least 12 inches (except where bedrock
25 prohibits achieving this depth) and then redistribute the salvaged topsoil to
26 match adjacent grades.

27 (IV.E.3) During facility operation, the certificate holder shall routinely inspect and
28 maintain all roads, pads and trenched areas and, as necessary, maintain or repair
29 erosion control measures. The certificate holder shall restore areas that are
30 temporarily disturbed during facility maintenance or repair activities to
31 predisturbance condition or better.

32 (IV.E.4) Prior to construction, the certificate holder shall develop a plan to control the
33 introduction and spread of noxious weeds during facility construction and
34 operation. The plan shall be developed in consultation with the Department, the
35 Sherman County Weed Control manager, and ODFW. The plan shall be approved
36 by the Department prior to construction. The plan shall focus on weed species
37 listed on the Sherman County noxious weed list, but shall also include
38 preventative measures to combat noxious weeds of concern in the area.

1 ~~(Updated for Amendment No. 3) During construction and operation of the~~
2 ~~facility, the certificate holder shall implement a plan, developed in consultation~~
3 ~~with the Sherman County Weed Control manager, to control the introduction~~
4 ~~and spread of noxious weeds.~~

5 (IV.E.5) During construction, the certificate holder shall ensure that the wash down of
6 concrete trucks occurs only at a contractor-owned batch plant or at tower
7 foundation locations. If such wash down occurs at tower foundation locations,
8 then the certificate holder shall ensure that wash down wastewater does not run
9 off the construction site into otherwise undisturbed areas and that the
10 wastewater is disposed of on backfill piles and buried underground with the
11 backfill over the tower foundation.

12 (IV.E.6) During facility operation, if blade-washing becomes necessary, the certificate
13 holder shall ensure that there is no runoff of wash water from the site or
14 discharges to surface waters, storm sewers or dry wells. The certificate holder
15 shall not use acids, bases or metal brighteners with the wash water. The
16 certificate holder may use biodegradable, phosphate-free cleaners sparingly.

17 **F. PROTECTED AREAS**

18 [No conditions]

19 **G. SCENIC RESOURCES**

20 (IV.G.1) To reduce the visual impact of the facility, the certificate holder shall:

- 21 (a) Mount nacelles on smooth steel structures painted uniformly in a neutral
22 color to blend with the surrounding landscape;
- 23 (b) Paint substation structures in a neutral color to blend with the
24 surrounding landscape;
- 25 (c) Not allow any advertising to be used on any part of the facility;
- 26 (d) Use only those signs required for facility safety or required by law, except
27 that the certificate holder may erect a sign to identify the facility; and
- 28 (e) Maintain any signs allowed under this condition in good repair.

29 (IV.G.2) The certificate holder shall design and construct the O&M facility to be generally
30 consistent with the character of similar buildings used by commercial farmers or
31 ranchers in the area and shall paint the building in a neutral color to blend with
32 the surrounding landscape.

33 (IV.G.3) During operation of the facility, the certificate holder shall not use exterior
34 nighttime lighting except:

- (a) The minimum turbine tower lighting required or recommended by the Federal Aviation Administration (the “FAA”);
- (b) Security lighting at the O&M facility and substations, provided that such lighting is shielded or directed downward to reduce glare;
- (c) Minimum lighting necessary for repairs or emergencies; and
- (d) As otherwise required by federal, State or local law.

H. RECREATION

[No conditions]

I. PUBLIC HEALTH AND SAFETY STANDARDS FOR WIND ENERGY FACILITIES

- (IV.1.1) The certificate holder shall follow manufacturer’s recommended handling instructions and procedures to prevent damage to turbine or turbine tower components that could lead to failure.
- (IV.1.2) The certificate holder shall install and maintain self-monitoring devices on each turbine, connected to a fault annunciation panel or SCADA system at the O&M facility to alert operators to potentially dangerous conditions. The certificate holder shall equip each turbine with vibration-sensing equipment that will shut down the turbine in the event of abnormal levels of vibration.
- (IV.1.3) The certificate holder shall construct turbine towers with no exterior ladders or access to the turbine blades and shall install locked tower access doors. The certificate holder shall keep tower access doors locked at all times except when authorized personnel are present.
- (IV.1.4) The certificate holder shall have an operational safety-monitoring program and shall inspect all turbines and turbine tower components on a regular basis. The certificate holder shall maintain or repair turbine and turbine tower components as necessary to protect public safety.
- (IV.1.5) For turbine types having pad-mounted step-up transformers, the certificate holder shall install the transformers at the base of each tower in locked cabinets designed to protect the public from electrical hazards and to avoid creation of artificial habitat for raptor prey.
- (IV.1.6) To protect the public from electrical hazards, the certificate holder shall enclose the facility substations with appropriate fencing and locked gates.
- (IV.1.7) Before beginning construction, the certificate holder shall submit to the FAA and the Oregon Department of Aviation (“ODA”) a Notice of Proposed Construction or Alteration identifying the proposed final locations of the turbines and related or supporting facilities and shall provide a copy of this notice to the Department.

1 The certificate holder shall notify the Department of the FAA's and ODA's
2 responses as soon as they have been received.

3 (IV.I.8) The certificate holder shall construct all facility components in compliance with
4 the following setback requirements:

5 (a) The certificate holder shall maintain a minimum distance of 110 percent
6 of maximum blade tip height, measured from the centerline of the
7 turbine tower to the nearest edge of any public road right-of-way. The
8 certificate holder shall assume a minimum right-of-way width of 60 feet.

9 (b) The certificate holder shall maintain a minimum distance of 1,320 feet,
10 measured from the centerline of the turbine tower to the center of the
11 nearest residence existing at the time of tower construction.

12 (c) The certificate holder shall maintain a minimum distance of 110 percent of
13 maximum blade tip height, measured from the centerline of the turbine
14 tower to the nearest boundary of the certificate holder's lease area.

15 **J. ~~SITING STANDARDS FOR WIND ENERGY FACILITIES~~ CUMULATIVE EFFECTS STANDARDS**
16 **FOR WIND ENERGY FACILITIES**

17 [No conditions]

18 **K. SITING STANDARDS FOR TRANSMISSION LINES**

19 (IV.K.1) The certificate holder shall install the underground segments of the 34.5-kV
20 collector system at a minimum depth of three feet.

21 **L. THREATENED AND ENDANGERED SPECIES**

22 (IV.L.1) The certificate holder shall report the results of the database review and
23 consultation to the Department and to ODFW and, if there have been new
24 documentations of nesting bald eagles or peregrine falcons within ~~two~~ miles of
25 the facility, the certificate holder shall implement appropriate measures to
26 protect the species from adverse impact, as approved by the Department and
27 ODFW.

28 (IV.L.2) The certificate holder shall implement measures to mitigate impacts to sensitive
29 wildlife habitat during construction including, but not limited to, the following:

30 (a) Preparing maps to show sensitive areas, such as nesting or denning areas
31 for sensitive wildlife species, that are off limits to construction personnel;

32 (b) Ensuring that a qualified person instructs construction personnel to be
33 aware of wildlife in the area and to take precautions to avoid injuring or
34 destroying wildlife or significant wildlife habitat; and

1 (c) Avoiding unnecessary road construction, temporary disturbance and
2 vehicle use.

3 (IV.L.3) Prior to the beginning of construction but no more than two years prior to the
4 beginning of construction of the facility the certificate holder shall perform new
5 field surveys for threatened and endangered species following the survey
6 protocol set forth in the Application for Site Certificate. The certificate holder
7 shall report the results of the field surveys to the Department, ODFW, and the
8 Oregon Department of Agriculture. If the surveys identify the presence of
9 threatened or endangered species within the site boundary, the certificate
10 holder shall implement appropriate measures to avoid a significant reduction in
11 the likelihood of survival or recovery of the species, as approved by the
12 Department, ODFW, and the Oregon Department of Agriculture. (Updated for
13 Amendment No. 3)

14 **M. FISH AND WILDLIFE HABITAT**

15 (IV.M.1) Prior to construction, the certificate holder shall finalize and implement the
16 Habitat Mitigation and Revegetation Plan (HMRP), included as Attachment E to
17 the Final Order on Amendment No. 3, as approved by the Department in
18 consultation with ODFW. ~~The certificate holder shall implement the Habitat~~
19 Mitigation and Revegetation Plan submitted by the certificate holder in its
20 August 2008 application supplement and attached to the Final Order as
21 Attachment B, and as amended from time to time. Such amendments may be
22 made without amendment of the site certificate. The Council authorizes the
23 Department to agree to amendments, and the Council retains the authority to
24 approve, reject, or modify any amendments of the HMRP agreed to by the
25 Department. (Updated for Amendment No. 3)

26 The finalized HMRP shall incorporate the maps, habitat classifications, and
27 anticipated temporary and permanent habitat impact assessment completed as
28 per site certificate Condition III.C.1. Prior to start of construction, the certificate
29 holder shall acquire the legal right to create, enhance, maintain and protect a
30 habitat mitigation area so long as the site certificate is in effect by means of
31 outright purchase, conservation easement or similar conveyance and shall
32 provide a copy of the documentation to the Department. The nominal lease term
33 shall be at least 30 years, with an option to extend if the facility continues
34 operations past year 30. The mitigation area shall be as shown in figures 1, 2 and
35 3 of Attachment B to the Final Order. Any different mitigation area shall require
36 prior approval of the Department in consultation with ODFW. (Updated for
37 Amendment No. 3)

38 (IV.M.2) The certificate holder shall restore areas outside the permanent footprint that
39 are disturbed during construction according to the methods and monitoring
40 procedures described in the revegetation plan included in the Final Order as

1 Attachment B and as amended from time to time. Mitigation and restoration
2 requirements in the plan shall apply to all laydown areas and other areas of
3 temporary disturbance, including those associated with construction of
4 transmission lines.

5 (IV.M.3) Permanent met towers shall not have guy wires.

6 (IV.M.4) The certificate holder shall survey the status of known raptor nests within 0.5
7 miles before ground-disturbing activities begin. If an active nest is found, and
8 ground-disturbing activities are scheduled to begin before the end of the
9 sensitive nesting and breeding season (mid-April to mid-August), the certificate
10 holder will not engage in ground-disturbing activities within a 0.25-mile buffer
11 around the nest until the nest fledges young or the nest fails, unless ODFW
12 approves an alternative plan. If ground-disturbing construction activities
13 continue into the sensitive nesting and breeding season for the following year,
14 the certificate holder will not engage in ground-disturbing activities within the
15 0.25-mile buffer if the nest site is found to be active until the nest fledges young
16 or the nest fails, unless ODFW approves an alternate plan.

17 (IV.M.5) The certificate holder will survey the status of known loggerhead shrikes nests
18 and visit sites where non-nesting loggerhead shrikes were observed in order to
19 determine old and new nest sites. Ground-disturbing activities will be sequenced
20 with active raptor nests, using a 150-meter buffer.

21 (IV.M.6) Trees in Category 3 upland tree habitat shall not be physically harmed or
22 removed.

23 (IV.M.7) The certificate holder shall conduct wildlife monitoring as described in the
24 Wildlife Monitoring and Mitigation Plan that is included as Attachment A to the
25 Final Order and as amended from time to time.

26 (IV.M.8) The certificate holder shall design and construct all aboveground transmission
27 line support structures following the practices suggested by the Avian Powerline
28 Interaction Committee (APLIC 1996, referenced in the Application for a Site
29 Certificate, at P-33) and shall install anti-perching devices on transmission pole
30 tops and cross arms where the poles are within the site or are located within
31 one-quarter mile of any wind turbine.

32 (IV.M.9) The certificate holder may construct turbines and other facility components
33 within the 900-foot corridors shown on Figures P-1 through P-10 of the
34 Application for a Site Certificate and August 2008 supplement, ~~subject to the~~
35 ~~following requirements addressing potential habitat impact:~~

36 ~~(a)~~ — The certificate holder shall not construct any facility components within areas of
37 Category 1 or Category 2 habitat and shall avoid temporary disturbance of
38 Category 1 or Category 2 habitat, except for those acreages allowed in Table 1

~~IV.M.1 in the Final Order for RFA No. 3. (Updated for Amendment No. 3)(b)
The certificate holder shall design and construct facility components that
are the minimum size needed for safe operation of the energy facility.~~

(IV.M.10) During construction, the certificate holder shall protect the area within a 1300-foot buffer around any active nests of the following species during the sensitive period, as provided in this condition:

Species	Sensitive Period	Early Release Date
Swainson's hawk	April 1 to August 15	May 31
Golden eagle	February 1 to August 31	May 31
Ferruginous hawk	March 15 to August 15	May 31
Burrowing owl	April 1 to August 15	July 15

The 1300-foot buffer may be reduced, with Department approval, if there is an adequate physical barrier between the nest site and the construction impacts such that a 1300-foot buffer proves to be excessive.

During the year in which construction of any phase occurs, the certificate holder shall use a protocol approved by ODFW to determine whether there are any active nests of these species within a half-mile of any areas that would be disturbed during construction. If a nest is occupied by any of these species after the beginning of the sensitive period, the certificate holder shall not engage in high-impact construction activities (activities that involve blasting, grading or other major ground disturbance) or allow high levels of construction traffic within 1300 feet of the nest site, or such lesser distance as may be approved by the Department in the event there is an adequate physical barrier between the nest site and the construction impacts.

In addition, the certificate holder shall flag the boundaries of the 1300-foot buffer area, or such lesser distance as may be approved by the Department in the event there is an adequate physical barrier between the nest site and the construction impacts, and shall instruct construction personnel to avoid any unnecessary activity within the buffer area. The certificate holder shall direct a qualified independent third-party biological monitor, as approved by the Department, to observe the active nest sites during the sensitive period for signs of disturbance and to notify the Department of any noncompliance with this condition. If the monitor observes nest site abandonment or other adverse impact to nesting activity, the certificate holder shall implement appropriate mitigation, in consultation with ODFW and subject to the approval of the Department, unless the adverse impact is clearly shown to have a cause other than construction activity. The certificate holder may begin or resume high-impact construction activities before the ending day of the sensitive period if any known nest site is not occupied by the early release date. If a nest site is occupied, then the certificate holder may begin or resume high-impact

1 construction before the ending day of the sensitive period with the approval of
2 ODFW, but after the young are fledged. The certificate holder shall use a
3 protocol approved by ODFW to determine when the young are fledged (meaning
4 the young are independent of the core nest site).

5 (IV.M.11) The certificate holder shall conduct two (2) years of raptor nest surveys with at
6 least one (1) year of the surveys occurring prior to the beginning of construction.
7 The raptor nest surveys shall be conducted following the instructions set forth in
8 the Raptor Nest Survey Protocol for Golden Hills Wind Project included as
9 Attachment C to the Second Amended Site Certificate. The certificate holder
10 shall provide a written report on the raptor nest surveys to the Department and
11 ODFW. If the surveys identify the presence of raptor nests within the survey
12 area, the certificate holder shall implement appropriate measures, consistent
13 with the Habitat Mitigation and Revegetation Plan, and as approved by the
14 Department in consultation with ODFW, to assure that design, construction, and
15 operation of the facility are consistent with the Fish and Wildlife Habitat
16 standard. (Updated for Amendment No. 3)

17 **V. STANDARDS NOT APPLICABLE TO SITE CERTIFICATE ELIGIBILITY**

18 Under ORS 469.501(4), the Council may issue a site certificate without making the findings
19 required by the standards discussed in this section (Structural Standard; Historic, Cultural and
20 Archaeological Resources Standard; Public Services Standard; and Waste Minimization
21 Standard). Nevertheless, the Council may impose site certificate conditions based on the
22 requirements of these standards.

23 **A. STRUCTURAL STANDARD**

24 (V.A.1) The certificate holder shall submit a site-specific geotechnical investigation
25 report to the Oregon Department of Geology & Mineral Industries (“DOGAMI”).
26 The investigation and report shall conform to the Oregon State Board of
27 Geologist Examiners guidelines titled “Guidelines for Engineering Geologic
28 Reports” and “Guidelines for Site-Specific Seismic Hazard Reports for Essential
29 and Hazardous Facilities and Major and Special-Occupancy Structures in
30 Oregon.” The certificate holder shall provide the Department with the report
31 and with evidence of concurrence by DOGAMI prior to start of construction.

32 (V.A.2) The certificate holder shall instruct the consulting geologist and engineer to
33 study slope stability issues and include conclusions and recommendations about
34 slope stability in the site-specific geotechnical report.

35 (V.A.3) The certificate holder shall design and construct the facility in accordance with
36 requirements set forth by the State’s Building Code Division and any other
37 applicable codes and design procedures.

1 (V.A.4) The certificate holder shall design, engineer and construct the facility to avoid
2 dangers to human safety presented by non-seismic hazards. As used in this
3 condition, “non-seismic hazards” include settlement, landslides, flooding and
4 erosion.

5 (V.A.5) The certificate holder shall ensure that wind turbine corridors and major
6 structures are constructed with sufficient setbacks from all steeper slopes to
7 minimize the potential for creating unstable or marginally stable conditions.

8 **B. HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES STANDARD**

9 (V.B.1) The certificate holder shall design the facility to avoid impacts to sites 35SH217,
10 35SH220, GH site 6 (above ground resource), 35SH219 and GH Isolate 6.

11 (V.B.2) For sites 35SH215, 35SH216 and 35SH221, the certificate holder shall avoid
12 impacts to these sites during construction and subsequent operations. The
13 certificate holder shall develop a Cultural Resource Management Plan (the
14 “CRMP”) that includes a 30-meter buffer area around these listed sites
15 designated as a “no-work zone” for all ground-disturbing activities. The
16 certificate holder shall submit the CRMP to the State Historic Preservation Office
17 (the “SHPO”) for concurrence and shall provide to the Department
18 documentation confirming SHPO concurrence prior to start of construction.

19 (V.B.3) The certificate holder shall consult with the SHPO regarding the development of
20 a CRMP that will address the protection of aboveground historic resources and
21 belowground archeological resources. The CRMP shall include established
22 protocol and procedures for unanticipated discoveries, such as the discovery of
23 new archeological sites or Native American human remains during ground-
24 disturbing activities, and shall document how these protocols will follow State
25 laws and rules at ORS 358.905-961, ORS 390.235, OAR 736-051-0090 and
26 ORS 97.740-760 as in effect on the date of this site certificate.

27 (V.B.4) Before beginning construction of any phase of the facility, the certificate holder
28 shall provide to the Department a map showing the final design locations of all
29 components of that phase of the facility and areas that would be temporarily
30 disturbed during construction, and also showing the areas surveyed by Tetra Tech
31 in preparing the Archeological Inventory for Golden Hills Wind Energy
32 Development included in the Application for a Site Certificate as Attachment S-1. If
33 there are any additional areas where ground-disturbing activities will occur that
34 were not part of the original facility area, the certificate holder shall contact the
35 SHPO to determine whether there will be additional impacts to cultural resources.

36 (V.B.5) The certificate holder shall ensure that a qualified archaeologist instructs
37 construction personnel on the identification of cultural resources

- 1 (V.B.6) If any cultural resources are discovered during construction activities, all work at
2 that location shall cease immediately and the certificate holder shall contact the
3 SHPO to determine whether it is necessary to have an archeologist travel to the
4 worksite and assess the discovery or monitor construction activities.
- 5 (V.B.7) “No access” buffers shall be identified on construction plans and temporarily
6 demarcated in the field before and during construction. The facility
7 Environmental Inspector shall monitor flagged “no access” buffers around
8 archeological sites during construction to prevent accidental damage to cultural
9 resources. These flags or markers shall not be moved or removed during
10 construction activities, and construction personnel shall be advised of these
11 restrictions.
- 12 (V.B.8) The certificate holder shall ensure that construction personnel cease all ground-
13 disturbing activities in the immediate area if any archaeological or cultural
14 resources are found during construction of the facility until a qualified
15 archaeologist can evaluate the significance of the find. No construction
16 personnel will be allowed in the discovery area except for facility management in
17 consultation with the SHPO. The certificate holder shall notify the Department
18 and the SHPO of the find. If the SHPO determines that the resource is significant,
19 the certificate holder shall make recommendations to the Council for mitigation,
20 including avoidance or data recovery, in consultation with the Department, the
21 SHPO, the appropriate Oregon tribes and other appropriate parties. The
22 certificate holder shall not restart work in the affected area until the certificate
23 holder has demonstrated to the Department that it has complied with State
24 archaeological protection and archaeological permit laws in coordination with
25 the SHPO.
- 26 (V.B.9) The certificate holder shall ensure that construction personnel proceed carefully
27 in the vicinity of the mapped alignment of the Oregon Trail. If any intact physical
28 evidence of the trail is discovered, the certificate holder shall avoid any
29 disturbance to the intact segments by redesign, reengineering or restricting the
30 area of construction activity. The certificate holder shall promptly notify the
31 Department and the SHPO of the discovery. The certificate holder shall consult
32 with the Department and with the SHPO to determine appropriate mitigation
33 measures.
- 34 (V.B.10) Upon completion of construction, the certificate holder shall consult with the
35 Oregon Historic Trails Advisory Council regarding the appropriate content of an
36 interpretive sign. After such consultation, the certificate holder shall place in a
37 publicly accessible location a sign giving notice of the historic background of the
38 facility site and surrounding areas.

1 **C. PUBLIC SERVICES STANDARD**

2 (V.C.1) During operation of the facility, the certificate holder shall obtain water for on-
3 site use from one well located at the O&M facility, subject to compliance with
4 applicable permit requirements. During operation of the facility, the certificate
5 holder shall not use more than 5,000 gallons of water per day from the on-site
6 well.

7 (V.C.2) During construction and operation of the facility, the certificate holder shall
8 install on-site security and shall require on-site security personnel to establish a
9 line of communication with the Sherman County Sheriff's Office to regularly
10 report on the status of on-site security operations.

11 (V.C.3) Before beginning construction the certificate holder shall develop and implement
12 a fire safety and response plan for both construction and operation phases in
13 consultation with the Oregon State Fire Marshal, the Sherman County Emergency
14 Services, North Sherman Fire and Rescue, Moro Rural Fire Protection District and
15 other first-response agencies the facility will rely upon for fire protection services.
16 A copy of the plan must be provided to the Department at least 30 days before
17 beginning construction. The plan must be updated at least annually by the
18 agencies identified in (a) below and a copy provided to the agencies identified in
19 (a), (b), and (c) and to the Department within 30 days of the update. The fire
20 safety and response plan shall address, at a minimum, the following:

- 21 (a) Identification of agencies that participated in developing the plan;
- 22 (b) Identification of agencies that are designated as first response agencies
23 or are included in any mutual aid agreements with the facility;
- 24 (c) A list of any other mutual aid agreements or fire protection associations
25 in the vicinity of the facility;
- 26 (d) Complete contact information for each agency listed in (a), (b), and
27 (c) above, including at least two facility contacts available on a 24-hour
28 basis;
- 29 (e) Communication protocols for both routine and emergency events and
30 the incident command system to be used in the event a fire response by
31 multiple agencies is needed at the facility;
- 32 (f) Access and fire response at the facility site during construction and
33 operations. Fire response plans during construction shall address regular
34 and frequent communication amongst the agencies regarding the
35 number and location of construction sites within the site boundary,
36 access roads that are completed and those still under construction,
37 location of water receptacles, and a temporary signage system until
38 permanent addresses and signs are in place;

- 1 (g) The minimum designated time period of the fire season (i.e., May 1
2 through October 15) and the criteria to modify the designated fire season
3 to respond to changing conditions;
- 4 (h) The number, size, and location of onsite water receptacles to be staged
5 around the facility site for firefighting purposes during the fire season;
6 and
- 7 (i) Training needs (both for facility personnel and for first responders).
- 8 (j) Copies of mutual aid, fire protection association, or other agreements
9 entered into concerning fire protection at the facility site.
- 10 (V.C.4) During construction of the facility, the certificate holder shall ensure that
11 construction vehicles and equipment are operated on graveled areas to the
12 extent possible and that open flames, such as cutting torches, are kept away
13 from grassy areas.
- 14 (V.C.5) During construction and operation of the facility, the certificate holder shall
15 ensure that the O&M facility and all service vehicles are equipped with shovels
16 and portable fire extinguishers of a 4A50BC or equivalent rating.
- 17 (V.C.6) During construction of the facility, the certificate holder shall maintain a water
18 truck on site to respond to potential fire incidents.
- 19 (V.C.7) The certificate holder shall construct turbines on concrete pads with a minimum
20 of 10 feet of nonflammable and non-erosive ground cover on all sides. The
21 certificate holder shall cover turbine pad areas with nonflammable, non-erosive
22 material immediately following exposure during construction and shall maintain
23 the pad area covering during operation of the facility.
- 24 (V.C.8) During operation of the facility, the certificate holder shall ensure that all on-site
25 employees receive annual fire prevention and response training, including tower
26 rescue training, from qualified instructors or members of local fire districts and
27 shall ensure that all employees are instructed to keep vehicles on roads and off
28 dry grassland, except when off-road operation is required for emergency
29 purposes.
- 30 (V.C.9) Upon beginning operation of the facility, the certificate holder shall provide to
31 North Sherman Fire Protection District and Moro Rural Fire Protection District a
32 site plan indicating the identification number assigned to each turbine and the
33 location of all facility structures. During operation of the facility, the certificate
34 holder shall ensure that appropriate district personnel have an up-to-date list of
35 the names and telephone numbers of facility personnel available to respond on a
36 24-hour basis in case of an emergency on the facility site.

1 (V.C.10) Before and during beginning construction of the facility, the certificate holder
2 shall develop and implement a construction-phase traffic management plan with
3 all affected local jurisdictions.

4 (V.C.11) During construction of the facility, the certificate holder shall implement
5 measures to reduce traffic impacts, including:

- 6 (a) Providing notice to all affected local jurisdictions in advance of deliveries;
- 7 (b) Providing notice to adjacent landowners and residents of Biggs Junction
8 in advance of deliveries; and
- 9 (c) Requiring flaggers to be at appropriate locations at appropriate times
10 during construction to direct traffic and reduce accident risks.

11 (V.C.12) Prior to start of construction, the certificate holder shall obtain from the
12 Sherman County Road Department an assessment of road conditions in the
13 facility area prior to the start of construction of the facility. The certificate holder
14 shall also obtain from the county road department an evaluation of the roads
15 following completion of the facility to determine any significant change in
16 condition. The certificate shall cooperate with the Sherman County Road
17 Department to ensure that any unusual damage or wear caused by the use of
18 the county's roads by the developer during the construction of the facility will be
19 the responsibility of the developer. In addition, no equipment or machinery of
20 the developers shall be parked or stored on any county road except while in use.

21 (V.C.13) Prior to beginning construction, the certificate holder will

- 22 (a) Designate a route or routes for the transport of wind turbine
23 construction material (including water, aggregate, concrete, machinery
24 and tower pieces), with the intention of minimizing damage to non-
25 designated roads, and provide these designations to the County Road
26 Master;
- 27 (b) Provide to the County Road Master a written summary of possible
28 anticipated road damage to the designated route or routes, and an
29 estimate of the cost of repair to the designated route or routes;
- 30 (c) Establish and maintain an escrow account for so long as construction is
31 ongoing funded in an amount equal to the estimated cost to repair the
32 designated route or routes consistent with the estimate provided in (b);
33 and
- 34 (d) Conduct an inspection of the roads along the designated route or routes
35 before and after construction with a representative of the Sherman County
36 Road Department and an independent third party with the required
37 expertise to inspect and evaluate paved and graveled roads. In the event a
38 dispute arises, the third party shall be the final arbiter. The cost of the
39 hiring of the third party shall be borne by the certificate holder.

1 (V.C.14) The certificate holder shall work with Sherman County Emergency Manager to
2 assign a 9-1-1 5-digit rural address to every tower road that intersects a State or
3 county road. The county will provide and install the signage for these addresses.

4 **D. WASTE MINIMIZATION STANDARD**

5 (V.D.1) During construction, the certificate holder shall implement a waste management
6 plan that includes, but is not limited to, the following measures:

- 7 (a) Recycling steel and other metal scrap;
- 8 (b) Recycling wood waste;
- 9 (c) Recycling packaging wastes, such as paper and cardboard;
- 10 (d) Collecting non-recyclable waste for transport to a landfill; and
- 11 (e) Segregating all hazardous wastes, such as used oil, oily rags and oil-
12 absorbent materials, lubricant and cleaning solution containers, mercury-
13 containing lights, and lead-acid and nickel-cadmium batteries, for
14 disposal by a licensed firm specializing in the proper recycling or disposal
15 of hazardous wastes.

16 (V.D.2) During operation, the certificate holder shall implement a waste management
17 plan that includes, but is not limited to, the following measures:

- 18 (a) Training employees to minimize and recycle solid waste;
- 19 (b) Recycling paper products, metals, glass and plastics;
- 20 (c) Recycling used oil and hydraulic fluid;
- 21 (d) Collecting non-recyclable waste for transport to a landfill; and
- 22 (e) Segregating all hazardous wastes, such as used oil, oily rags and oil-
23 absorbent materials, oil and cleaning solution containers, mercury-
24 containing lights, and lead-acid and nickel-cadmium batteries, for
25 disposal by a licensed firm specializing in the proper recycling or disposal
26 of hazardous wastes.

27 (V.D.3) During construction, the certificate holder shall provide portable toilets for on-
28 site sewage handling and shall ensure that they are pumped and cleaned
29 regularly by a licensed contractor.

30 (V.D.4) During operation, the certificate holder shall discharge sanitary wastewater
31 generated at the O&M facility to a licensed on-site septic system in compliance
32 with county permit requirements. The certificate holder shall design the septic
33 system with a discharge capacity of less than 5,000 gallons per day.

1 VI. OTHER APPLICABLE REGULATORY REQUIREMENTS

2 A. REQUIREMENTS UNDER COUNCIL JURISDICTION

3 1. NOISE CONTROL REGULATIONS

4 (VI.A.1.1) To reduce noise impacts at nearby residential areas, the certificate holder shall:

5 (a) Confine the noisiest operation of heavy construction equipment to the
6 daylight hours;

7 (b) Require contractors to install and maintain exhaust mufflers on all
8 combustion engine-powered equipment; and

9 (c) Establish a complaint response system at the construction manager's
10 office to address noise complaints.

11 (VI.A.1.2) The certificate holder shall submit, for Department approval prior to
12 construction, a complete new noise analysis for the facility based on the final
13 design layout as designed and generate a new table listing each noise-sensitive
14 property, as defined in OAR 340-035-0015(38), and the predicted maximum
15 hourly L₅₀ noise level at each noise-sensitive property. In addition, the certificate
16 holder shall provide the predicted sound levels contributed by each turbine at
17 each noise-sensitive property that does not provide a waiver of the ambient
18 noise rule. The certificate holder shall perform the analysis using the CADNA/A
19 by DataKustik GmbH of Munich, Germany, and shall base the analysis on the final
20 facility design including final choice of turbine and location of all facility
21 components. The analysis shall demonstrate to the satisfaction of the
22 Department that each of the following requirements have been met:

23 (a) For any noise-sensitive property, the certificate holder shall identify the
24 final design locations of all turbines to be built and perform a noise
25 analysis demonstrating, in accordance with OAR
26 340-035-0035(1)(b)(B)(iii)(IV), that the total hourly L₅₀ noise level
27 generated by the facility would not exceed 50 dBA at the appropriate
28 measurement point. The certificate holder shall assume the following
29 input parameters:

- 30 • The maximum sound power level warranted by the manufacturer or
31 confirmed by other means acceptable to the Department;
- 32 • The exact locations of the proposed turbines;
- 33 • Attenuation of sound due to absorption to be calculated using a
34 methodology satisfactory to the Department;
- 35 • The use of 50° F temperature and 70 percent relative humidity in the
36 analysis;

- A 2dB safety margin shall be added to turbine sound power levels;
- No credit for shielding of any residence by terrain; and
- All receptors treated as simultaneously downwind of all turbines.

(b) If the hourly L₅₀ noise levels caused by the facility at any noise-sensitive property would increase the ambient noise level at any noise-sensitive property over the full set of wind conditions ranging from cut in to full load by more than 10 dBA, the certificate holder shall obtain a legally effective easement or real covenant from that property owner pursuant to which the owner of the property authorizes the certificate holder's operation of the facility to increase ambient statistical noise levels L₅₀ and L₅₀ by more than 10 dBA at the appropriate measurement point. A legally effective easement or real covenant shall (i) include a legal description of the burdened property (the noise-sensitive property); (ii) be recorded in the real property records of the county; (iii) expressly benefit the certificate holder; (iv) expressly run with the land and bind all future owners, lessees or holders of any interest in the burdened property; and (v) not be subject to revocation without the certificate holder's written approval.

(c) If, for any noise-sensitive property where the hourly L₅₀ noise levels caused by the facility would increase by more than 10 dBA above the ambient level over the full range of wind conditions measured for that property and where the certificate holder has not obtained a legally effective easement or real covenant as described in (b), the certificate holder shall identify measures to reduce noise at that property either by eliminating or moving turbines, and shall perform the noise analysis again to demonstrate, in accordance with OAR 340-035-0035(1)(b)(B)(iii)(IV), that the total noise generated by the facility would meet the ambient noise degradation test at the appropriate measurement point at that noise-sensitive property. The certificate holder shall obtain Department concurrence of the new analysis prior to start of construction.

(VI.A.1.3) During operation, the certificate holder shall maintain a complaint response system to address noise complaints. The certificate holder shall promptly notify the Department of any complaints received regarding facility noise and of any actions taken by the certificate holder to address those complaints. Prior to start of commercial operation, the certificate holder shall notify, in writing, the owners of potentially affected noise-sensitive properties identified in Exhibit X of the completed Application for a Site Certificate. The notice shall inform the property owners of the procedure and contact information for filing a complaint regarding the noise level from the facility once it is operating. The certificate holder shall document the issuance of this notice and provide that documentation to the Department.

1 (VI.A.1.4) Prior to start of commercial operation, the certificate holder shall submit a plan
2 for complaint-based operational noise monitoring to the Department.
3 Commercial operation shall not commence until the Department has concurred
4 in writing with the complaint-based noise monitoring protocol. The plan shall
5 provide for testing at houses whose owners or occupants submit a complaint to
6 the Council or the Department. The plan shall include a schedule for completion
7 of required testing and a date certain by which written results shall be provided
8 to the Council. If the owner of the property that filed the complaint refuses to
9 grant access for the purpose of performing the noise test described in this
10 condition after reasonable attempts are made by the certificate holder to
11 receive permission for access, then the Department shall not require further
12 corrective action.

13 **2. REMOVAL FILL LAW**

14 ~~[No conditions]~~

15 **Removal-Fill Condition 1: Prior to construction, the certificate holder shall:**

16 1) Conduct an updated wetlands and waters delineation survey of all areas to be
17 temporarily or permanently impacted by the facility based on final layout and design.

18 2) Submit the delineation survey report to the department and Oregon Department of
19 State Lands and receive concurrence of the report from DSL.

20 3) Confirm from the results of the delineation survey and DSL concurrence that the facility
21 will not need a removal-fill permit.

22 4) If a removal-fill permit is necessary, file a site certificate amendment request to review
23 and process the permit request.

24 (Added for Amendment No. 3)

25 **3. ~~GROUND WATER ACT~~ WATER RIGHTS**

26 [No conditions]

27 **4. PUBLIC HEALTH AND SAFETY**

28 (VI.A.4.1) The certificate holder shall take reasonable steps to reduce or manage human
29 exposure to electric and magnetic fields, including, but not limited to:

30 (a) Constructing all aboveground transmission lines at least 200 feet from
31 any residence or other occupied structure, measured from the centerline
32 of the transmission line;

- 1 (b) Fencing all areas near the facility substations to ensure that substation
2 equipment is not accessible to the public;
- 3 (c) Providing to landowners a map of underground and overhead
4 transmission lines on their property and advising landowners of possible
5 health risks; and
- 6 (d) Designing and maintaining all transmission lines so that alternating
7 current electric fields do not exceed 9 kV per meter at one meter above
8 the ground surface in areas accessible to the public.

9 (VI.A.4.2) In advance of, and during, preparation of detailed design drawings and
10 specifications for 230 kV, 500 kV, and 34.5 kV transmission lines, the certificate
11 holder shall consult with the Utility Safety and Reliability Section of the Oregon
12 Public Utility Commission to ensure that the designs and specifications are
13 consistent with applicable codes and standards.

14 (VI.A.4.3) Prior to start of construction, the certificate holder shall submit to ODOE a
15 procedure for coordinating, with all affected local electric service utilities and
16 transmission service providers, crane movements under electric transmission
17 lines during construction and maintenance of the facility. The procedure shall
18 address subjects including, but not limited to, minimum advance notification
19 prior to any crane movement under an electric transmission or distribution line,
20 protocols for determining adequate line clearance and specific crane path
21 locations. With the procedure, the certificate holder shall provide evidence of
22 concurrence by each affected electric service utility or transmission service
23 provider. The certificate holder shall ensure that all employees, construction
24 contractors and subcontractors adhere to this procedure throughout
25 construction and maintenance of the facility.

26 **VII. CONDITIONS REQUIRED BY COUNCIL RULES**

27 This section lists conditions required by OAR 345-027-0020 (Mandatory Conditions in Site
28 Certificates), OAR 345-027-0023 (Site Specific Conditions), OAR 345-027-0028 (Monitoring
29 Conditions), and OAR Chapter 345, Division 26 (Construction and Operation Rules for Facilities).
30 These conditions should be read together with the specific facility conditions listed in
31 Sections III, ~~W~~IV, V, and VI to ensure compliance with the siting standards of OAR Chapter 345,
32 Divisions 22 and 24, and to protect the public health and safety. In these conditions, the
33 definitions in OAR 345-001-0010 apply.

34 The obligation of the certificate holder to report information to the Department or the Council
35 under the conditions listed in this section and in Sections III, ~~IV~~W, V, and VI is subject to the
36 provisions of ORS 192.502 et seq. and ORS 469.560. To the extent permitted by law, the
37 Department and the Council will not publicly disclose information that may be exempt from
38 public disclosure if the certificate holder has clearly labeled such information and stated the
39 basis for the exemption at the time of submitting the information to the Department or the

1 Council. If the Department or the Council receives a request for the disclosure of the
2 information, the Department or the Council, as appropriate, will make a reasonable attempt to
3 notify the certificate holder and will refer the matter to the Attorney General for a
4 determination of whether the exemption is applicable, pursuant to ORS 192.450.

5 In addition to these conditions, the certificate holder is subject to all conditions and
6 requirements contained in the rules of the Council and in local ordinances and State laws in
7 effect on the date the site certificate is executed. Under ORS 469.401(2), upon a clear showing
8 of a significant threat to the public health, safety or the environment that requires application
9 of later-adopted laws or rules, the Council may require compliance with such later-adopted
10 laws or rules.

11 The Council recognizes that many specific tasks related to the design, construction, operation,
12 and retirement of the facility will be undertaken by the certificate holder's agents or
13 contractors. Nevertheless, the certificate holder is responsible for ensuring compliance with all
14 provisions of the site certificate.

15 (VII.1) OAR 345-027-0020(1): The Council shall not change the conditions of the site
16 certificate except as provided for in OAR Chapter 345, Division 27.

17 (VII.2) OAR 345-027-0020(2): The certificate holder shall submit a legal description of
18 the site to the Department of Energy within 90 days after beginning operation of
19 the facility. The legal description required by this rule means a description of
20 metes and bounds or a description of the site by reference to a map and
21 geographic data that clearly and specifically identifies the outer boundaries that
22 contain all parts of the facility.

23 (VII.3) OAR 345-027-0020(3): The certificate holder shall design, construct, operate, and
24 retire the facility:

- 25 (a) Substantially as described in the site certificate;
- 26 (b) In compliance with the requirements of ORS Chapter 469, applicable
27 Council rules, and applicable state and local laws, rules and ordinances in
28 effect at the time the site certificate is issued; and
- 29 (c) In compliance with all applicable permit requirements of other state
30 agencies.

31 (VII.4) OAR 345-027-0020(4): The certificate holder shall begin and complete
32 construction of the facility by the dates specified in the site certificate. *[See*
33 *Conditions (III.D.1) and (111.D.2).]*

34 (VII.5) OAR 345-027-0020(5): Except as necessary for the initial survey or as otherwise
35 allowed for wind energy facilities, transmission lines or pipelines under this
36 section, the certificate holder shall not begin construction, as defined in OAR
37 345-001-0010, or create a clearing on any part of the site until the certificate

holder has construction rights on all parts of the site. For the purpose of this rule, “construction rights” means the legal right to engage in construction activities. For wind energy facilities, transmission lines or pipelines, if the certificate holder does not have construction rights on all parts of the site, the certificate holder may nevertheless begin construction, as defined in OAR 345-001-0010, or create a clearing on a part of the site if the certificate holder has construction rights on that part of the site and:

- (a) The certificate holder would construct and operate part of the facility on that part of the site even if a change in the planned route of the transmission line or pipeline occurs during the certificate holder’s negotiations to acquire construction rights on another part of the site; or
- (b) The certificate holder would construct and operate part of a wind energy facility on that part of the site even if other parts of the facility were modified by amendment of the site certificate or were not built.

(VII.6) OAR 345-027-0020(6): If the Council requires mitigation based on an affirmative finding under any standards of Division 22 or Division 24 of OAR Chapter 345, the certificate holder shall consult with affected state agencies and local governments designated by the Council and shall develop specific mitigation plans consistent with Council findings under the relevant standards. The certificate holder must submit the mitigation plans to the Office and receive Office approval before beginning construction or, as appropriate, operation of the facility.

(VII.7) OAR 345-027-0020(7): The certificate holder shall prevent the development of any conditions on the site that would preclude restoration of the site to a useful, non-hazardous condition to the extent that prevention of such site conditions is within the control of the certificate holder.

(VII.8) OAR 345-027-0020(8): Before beginning construction of the facility, the certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition. The certificate holder shall maintain a bond or letter of credit in effect at all times until the facility has been retired. The Council may specify different amounts for the bond or letter of credit during construction and during operation of the facility. *[See Condition IV.C.4.]*

(VII.9) OAR 345-027-0020(9): The certificate holder shall retire the facility if the certificate holder permanently ceases construction or operation of the facility. The certificate holder shall retire the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110. The certificate holder shall pay the actual cost to restore the site to a useful, non-hazardous

1 condition at the time of retirement, notwithstanding the Council’s approval in
2 the site certificate of an estimated amount required to restore the site.

3 (VII.10) OAR 345-027-0020(10): The Council shall include as conditions in the site
4 certificate all representations in the site certificate application and supporting
5 record the Council deems to be binding commitments made by the applicant.

6 (VII.11) OAR 345-027-0020(11): Upon completion of construction, the certificate holder
7 shall restore vegetation to the extent practicable and shall landscape all areas
8 disturbed by construction in a manner compatible with the surroundings and
9 proposed use. Upon completion of construction, the certificate holder shall
10 remove all temporary structures not required for facility operation and dispose
11 of all timber, brush, refuse and flammable or combustible material resulting
12 from clearing of land and construction of the facility.

13 (VII.12) OAR 345-027-0020(12): The certificate holder shall design, engineer and
14 construct the facility to avoid dangers to human safety presented by seismic
15 hazards affecting the site that are expected to result from all maximum probable
16 seismic events. As used in this rule “seismic hazard” includes ground shaking,
17 landslide, liquefaction, lateral spreading, tsunami inundation, fault displacement
18 and subsidence.

19 (VII.13) OAR 345-027-0020(13): The certificate holder shall notify the Department, the
20 State Building Codes Division and the Department of Geology and Mineral
21 Industries promptly if site investigations or trenching reveal that conditions in the
22 foundation rocks differ significantly from those described in the application for a
23 site certificate. After the Department receives the notice, the Council may require
24 the certificate holder to consult with the Department of Geology and Mineral
25 Industries and the Building Codes Division and to propose mitigation actions.

26 (VII.14) OAR 345-027-0020(14): The certificate holder shall notify the Department, the
27 State Building Codes Division and the Department of Geology and Mineral
28 Industries promptly if shear zones, artesian aquifers, deformations or clastic
29 dikes are found at or in the vicinity of the site.

30 (VII.15) OAR 345-027-0020(15): Before any transfer of ownership of the facility or
31 ownership of the site certificate holder, the certificate holder shall inform the
32 Department of the proposed new owners. The requirements of OAR
33 345-027-0100 apply to any transfer of ownership that requires a transfer of the
34 site certificate.

35 (VII.16) OAR 345-027-0020(16): If the Council finds that the certificate holder has
36 permanently ceased construction or operation of the facility without retiring the
37 facility according to a final retirement plan approved by the Council, as described
38 in OAR 345-027-0110, the Council shall notify the certificate holder and request

1 that the certificate holder submit a proposed final retirement plan to the Office
2 within a reasonable time not to exceed 90 days. If the certificate holder does not
3 submit a proposed final retirement plan by the specified date, the Council may
4 direct the Department to prepare a proposed a final retirement plan for the
5 Council’s approval. Upon the Council’s approval of the final retirement plan, the
6 Council may draw on the bond or letter of credit described in OAR
7 345-027-0020(8) to restore the site to a useful, non-hazardous condition
8 according to the final retirement plan, in addition to any penalties the Council
9 may impose under OAR Chapter 345, Division 29. If the amount of the bond or
10 letter of credit is insufficient to pay the actual cost of retirement, the certificate
11 holder shall pay any additional cost necessary to restore the site to a useful, non-
12 hazardous condition. After completion of site restoration, the Council shall issue
13 an order to terminate the site certificate if the Council finds that the facility has
14 been retired according to the approved final retirement plan.

15 (VII.17) OAR 345-027-0023(4): If the facility includes any transmission line under Council
16 jurisdiction:

- 17 (a) The certificate holder shall design, construct and operate the
18 transmission line in accordance with the requirements of the 2012
19 Edition of the National Electrical Safety Code ~~2007 edition~~ approved on
20 June 3, 2001, by the American National Standards Institute; and
- 21 (b) The certificate holder shall develop and implement a program that
22 provides reasonable assurance that all fences, gates, cattle guards,
23 trailers, or other objects or structures of a permanent nature that could
24 become inadvertently charged with electricity are grounded or bonded
25 throughout the life of the line.

26 (Updated for Amendment No. 3)

27 (VII.18) OAR 345-027-0023(5): If the proposed energy facility is a pipeline or a
28 transmission line or has, as a related or supporting facility, a pipeline or
29 transmission line, the Council shall specify an approved corridor in the site
30 certificate and shall allow the certificate holder to construct the pipeline or
31 transmission line anywhere within the corridor, subject to the conditions of the
32 site certificate. If the applicant has analyzed more than one corridor in its
33 application for a site certificate, the Council may, subject to the Council’s
34 standards, approve more than one corridor.

35 (VII.19) OAR 345-027-0028: The following general monitoring conditions apply:

- 36 (a) The certificate holder shall consult with affected state agencies, local
37 governments and tribes and shall develop specific monitoring programs
38 for impacts to resources protected by the standards of divisions 22 and
39 24 of OAR Chapter 345 and resources addressed by applicable statutes,

- 1 administrative rules and local ordinances. The certificate holder must
2 submit the monitoring programs to the Department of Energy and
3 receive Department approval before beginning construction or, as
4 appropriate, operation of the facility.
- 5 (b) The certificate holder shall implement the approved monitoring
6 programs described in OAR 345-027-0028(1) and monitoring programs
7 required by permitting agencies and local governments.
- 8 (c) For each monitoring program described in OAR 345-027-0028(1) and (2),
9 the certificate holder shall have quality assurance measures approved by
10 the Department before beginning construction or, as appropriate, before
11 beginning commercial operation.
- 12 (d) If the certificate holder becomes aware of a significant environmental
13 change or impact attributable to the facility, the certificate holder shall,
14 as soon as possible, submit a written report to the Department describing
15 the impact on the facility and any affected site certificate conditions.

16 (VII.20) OAR 345-026-0048: Following receipt of the site certificate or an amended site
17 certificate, the certificate holder shall implement a plan that verifies compliance
18 with all site certificate terms and conditions and applicable statutes and rules. As
19 a part of the compliance plan, to verify compliance with the requirement to
20 begin construction by the date specified in the site certificate, the certificate
21 holder shall report promptly to the Department of Energy when construction
22 begins. Construction is defined in OAR 345-001-0010. In reporting the beginning
23 of construction, the certificate holder shall describe all work on the site
24 performed before beginning construction, including work performed before the
25 Council issued the site certificate, and shall state the cost of that work. For the
26 purpose of this exhibit, “work on the site” means any work within a site or
27 corridor, other than surveying, exploration or other activities to define or
28 characterize the site or corridor. The certificate holder shall document the
29 compliance plan and maintain it for inspection by the Department or the Council.

30 (VII.21) OAR 345-026-0080: The certificate holder shall report according to the following
31 requirements:

- 32 (a) General reporting obligation for energy facilities under construction or
33 operating:
- 34 (i) Within six months after beginning construction, and every six
35 months thereafter during construction of the energy facility and
36 related or supporting facilities, the certificate holder shall submit
37 a semiannual construction progress report to the Department of
38 Energy. In each construction progress report, the certificate
39 holder shall describe any significant changes to major milestones
40 for construction. The certificate holder shall include such

1 information related to construction as specified in the site
2 certificate. When the reporting date coincides, the certificate
3 holder may include the construction progress report within the
4 annual report described in OAR 345-026-0080.

5 (ii) By April 30 of each year after beginning construction, the
6 certificate holder shall submit an annual report to the Department
7 addressing the subjects listed in OAR 345-026-0080. The Council
8 Secretary and the certificate holder may, by mutual agreement,
9 change the reporting date.

10 (iii) To the extent that information required by OAR 345-026-0080 is
11 contained in reports the certificate holder submits to other state,
12 federal or local agencies, the certificate holder may submit
13 excerpts from such other reports to satisfy this rule. The Council
14 reserves the right to request full copies of such excerpted reports.

15 (b) In the annual report, the certificate holder shall include the following
16 information for the calendar year preceding the date of the report:

17 (i) Facility Status: An overview of site conditions, the status of
18 facilities under construction, and a summary of the operating
19 experience of facilities that are in operation. In this section of the
20 annual report, the certificate holder shall describe any unusual
21 events, such as earthquakes, extraordinary windstorms, major
22 accidents or the like that occurred during the year and that had a
23 significant adverse impact on the facility.

24 (ii) Reliability and Efficiency of Power Production: For electric power
25 plants, the plant availability and capacity factors for the reporting
26 year. The certificate holder shall describe any equipment failures
27 or plant breakdowns that had a significant impact on those factors
28 and shall describe any actions taken to prevent the recurrence of
29 such problems.

30 (iii) Fuel Use: For thermal power plants:

31 (A) The efficiency with which the power plant converts fuel
32 into electric energy. If the fuel chargeable to power heat
33 rate was evaluated when the facility was sited, the
34 certificate holder shall calculate efficiency using the same
35 formula and assumptions, but using actual data; and

36 (B) The facility's annual hours of operation by fuel type and,
37 every five years after beginning operation, a summary of
38 the annual hours of operation by fuel type as described in
39 OAR 345-024-0590(5).

- 1 (iv) Status of Surety Information: Documentation demonstrating that
2 bonds or letters of credit as described in the site certificate are in
3 full force and effect and will remain in full force and effect for the
4 term of the next reporting period.
- 5 (v) Monitoring Report: A list and description of all significant
6 monitoring and mitigation activities performed during the
7 previous year in accordance with site certificate terms and
8 conditions, a summary of the results of those activities, and a
9 discussion of any significant changes to any monitoring or
10 mitigation program, including the reason for any such changes.
- 11 (vi) Compliance Report: A description of all instances of
12 noncompliance with a site certificate condition. For ease of
13 review, the certificate holder shall, in this section of the report,
14 use numbered subparagraphs corresponding to the applicable
15 sections of the site certificate.
- 16 (vii) Facility Modification Report: A summary of changes to the facility
17 that the certificate holder has determined do not require a site
18 certificate amendment in accordance with OAR 345-027-0050.
- 19 (viii) Nongenerating Facility Carbon Dioxide Emissions: For
20 nongenerating facilities that emit carbon dioxide, a report of the
21 annual fuel use by fuel type and annual hours of operation of the
22 carbon dioxide emitting equipment as described in OAR
23 345-024-0630(4).
- 24 (VII.22) OAR 345-026-0105: The certificate holder and the Department of Energy shall
25 exchange copies of all correspondence or summaries of correspondence related
26 to compliance with statutes, rules and local ordinances on which the Council
27 determined compliance, except for material withheld from public disclosure
28 under state or federal law or under Council rules. The certificate holder may
29 submit abstracts of reports in place of full reports; however, the certificate
30 holder shall provide full copies of abstracted reports and any summarized
31 correspondence at the request of the Department.
- 32 (VII.23) OAR 345-026-0170(1): The certificate holder shall notify the Department of
33 Energy within 72 hours of any occurrence involving the facility if:
- 34 (a) There is an attempt by anyone to interfere with its safe operation;
- 35 (b) A natural event such as an earthquake, flood, tsunami or tornado, or a
36 human-caused event such as a fire or explosion affects or threatens to
37 affect the public health and safety or the environment; or
- 38 (c) There is any fatal injury at the facility.

1 **VIII. SUCCESSORS AND ASSIGNS**

2 To transfer this site certificate or any portion thereof or to assign or dispose of it in any other
3 manner, directly or indirectly, the certificate holder shall comply with OAR 345-027-0100.

4 **IX. SEVERABILITY AND CONSTRUCTION**

5 If any provision of this agreement and certificate is declared by a court to be illegal or in conflict
6 with any law, the validity of the remaining terms and conditions shall not be affected, and the
7 rights and obligations of the parties shall be construed and enforced as if the agreement and
8 certificate did not contain the particular provision held to be invalid.

9 **X. GOVERNING LAW AND FORUM**

10 This site certificate shall be governed by the laws of the State of Oregon. Any litigation or
11 arbitration arising out of this agreement shall be conducted in an appropriate forum in Oregon.

12 **XI. EXECUTION**

13 This site certificate may be executed in counterparts and will become effective upon signature
14 by the Chair of the Council and the authorized representative of the certificate holder.

15 **IN WITNESS WHEREOF**, this site certificate has been executed by the State of Oregon, acting by
16 and through its Energy Facility Siting Council, and by Golden Hills Wind Farm LLC.

17 ENERGY FACILITY SITING COUNCIL

GOLDEN HILLS WIND FARM LLC

18
19

20 By: _____
21 Barry Beyeler, Chair
22 Oregon Energy Facility Siting Council

By: _____
Print: _____

23

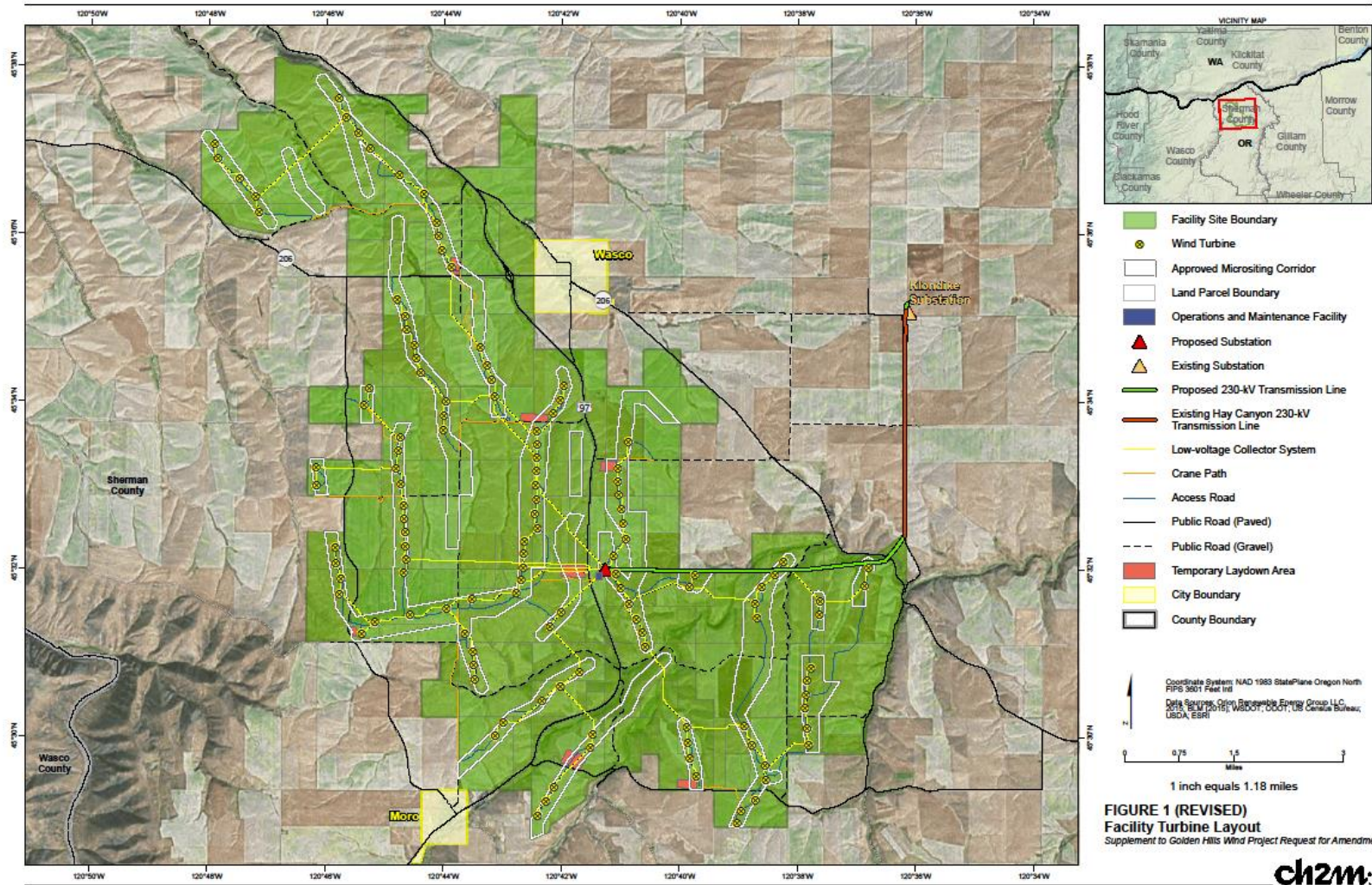
24 Date: _____

Date: _____

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**ATTACHMENT A
SITE BOUNDARY MAP**



**ATTACHMENT B
INDEX OF COMMENTS RECEIVED ON
REQUEST FOR AMENDMENT 3**

Attachment B: Index of Comments Received on Request for Amendment 3

Golden Hills Wind Project Request for Amendment #3 – Comment Index				
Date Comment Received	Unique Record ID	Commenter Identification		
		Last Name	First Name	Organization
<i>Reviewing Agency Comments</i>				
2015-12-30	GH1AMD3Doc12	Griffin	Dennis	Oregon State Historic Preservation Office
2016-01-07	GH1AMD3Doc16	Caines	Jeff	Oregon Department of Aviation
2016-01-14	GH1AMD3Doc23	Farrow Ferman	Teara	Confederated Tribes of the Umatilla Indian Reservation
2015-12-29	GH1AMD3Doc4	Hartman	Heidi	Oregon Department of State Lands
2016-05-09	GH1AMD3Doc40	Hartman	Heidi	Oregon Department of State Lands
2016-03-04	GH1AMD3Doc30	Thompson	Jeremy	Oregon Department of Fish and Wildlife
2016-05-25	GH1AMD3Doc43	Thompson	Jeremy	Oregon Department of Fish and Wildlife
2016-05-31	GH1AMD3Doc45	Swecker	Mitch	Oregon Department of Aviation
<i>Special Advisory Group</i>				
2016-03-01	GH1AMD3Doc27	Macnab	Georgia	Sherman County Commissioners
2016-05-18	GH1AMD3Doc42	Macnab	Georgia	Sherman County Commissioners
<i>Members of the Public</i>				
2016-03-04	GH1AMD3Doc29	Gilbert	Irene	Friends of the Grande Ronde Valley

ATTACHMENT C
RAPTOR NEST SURVEY PROTOCOL (AS APPROVED IN JANUARY 2015 IN THE *FINAL ORDER ON*
***AMENDMENT NO. 2*)**



ENVIRONMENTAL & STATISTICAL CONSULTANTS

456 SW Monroe Ave, Suite 102, Corvallis, OR 97333
Phone: 541-230-1790 • www.west-inc.com • Fax: 307-637-6981

MEMORANDUM

Date: September 11, 2014
To: Golden Hills Wind Farm LLC
From: WEST, Inc.
Subject: Proposed raptor nest survey protocol for Golden Hills Wind Project

Introduction

Golden Hills Wind Farm LLC (Golden Hills) is in the process of requesting an extension of the site certificate for the Golden Hills Wind Project (GHWP) in Sherman County, OR. During review of the application to extend the site certificate, it was recommended by Oregon Department of Fish and Wildlife (ODFW) that additional raptor nest surveys be conducted prior to the start of construction utilizing currently recommended survey protocols to update the data gathered during previous surveys. Raptor nest surveys for the GHWP were last conducted in 2007 and covered the project area boundary and a 2-mile buffer, with an extended survey area to the east of the project along Grass Valley Canyon and the John Day River, which specifically targeted cliff nesting species such as golden eagles and peregrine falcons. This memo was prepared to summarize the proposed survey protocol that Golden Hills intends to implement at the GHWP to satisfy the recommendation of ODFW.

Proposed Raptor Nest Survey Methods

The objective of the raptor nest survey will be to locate nests of raptors that may be subject to disturbance and displacement effects from construction and operation of the GHWP. The initial raptor nest survey will be conducted prior to leaf out to enhance the ability of observers to located nests in deciduous trees and will be timed with the early courtship period for golden eagles. This means the initial survey will likely occur late January or early February. To better document nest occupancy at all nests located during the initial survey, a follow-up survey will be conducted later in the nesting season (~April) when most species should be actively incubating eggs or brooding young.

Nest surveys will be conducted from a helicopter flown at an altitude of tree-top level to approximately 250 ft (76 m) aboveground. Surveys will target all potential raptor nesting substrates, with an emphasis on tree and cliff nesting raptors, such as red-tailed hawk (*Buteo jamaicensis*), Swainson's hawk (*Buteo swainsoni*), great-horned owl (*Bubo virginianus*), golden



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eagle (*Aquila chrysaetos*) and peregrine falcon (*Falcon peregrinus*). Other species that nest on the ground, or in cavities, will be recorded if observed, but will not be the focus of surveys as they are difficult to detect from the air. Systematic surveys for all raptor nests will be conducted within 2-miles of proposed turbine corridors, with additional surveys targeting golden eagle nests conducted out to a maximum of 10 miles from proposed turbine corridors. Per the USFWS Eagle Conservation Plan Guidance (ECP Guidance; USFWS 2013), if recent data (i.e., with the past 5 years) are available on spacing of occupied eagle nests for the project-area nesting population, the data may be used to delineate an appropriate survey area boundary, as described in Appendix H of the ECP Guidance. If recent survey data suggest a final survey area buffer that is less than 10 miles, it will be brought to the attention of the USFWS/ODFE prior to implementation.

The Oregon Eagle Foundation (OEF) has been conducting surveys for eagle nests and monitoring known golden eagle nests throughout Oregon for several years (Isaacs 2013). Prior to implementing surveys, OEF will be contacted regarding the location of known nesting sites and recent monitoring efforts in the vicinity of the GHWP. Coordination with OEF, and potentially others (e.g., ODFW, other developers), will be used to minimize survey overlap/duplication and reduce potential disturbance from survey efforts at known nest sites. To the extent practicable, surveys will follow the methods described in the USFWS Eagle Conservation Plan Guidance document (USFWS 2013). The initial survey will include a detailed search of all potentially suitable nesting substrates, while the second survey will only target nests identified during the initial survey. New nests identified while traveling between known sites will also be documented during the second survey.

When a nest is observed, the helicopter will be moved to a position where nest status and species present can be determined. Efforts will be made to minimize disturbance to breeding raptors; generally, the greatest possible distance at which the species can be identified will be maintained, with distances varying depending upon nest location and wind conditions. Data recorded for each nest location will include species occupying the nest, nest status (inactive, eggs present, incubating, young present, adult present, unknown, or other), nest substrate (tree, shrub, rocky outcrop, cliff, or power line), number of eggs or young present, time and date of observation, and the nest location (recorded with handheld GPS units). Locations of inactive nests will be recorded and mapped as they may be occupied during subsequent years.

References

- Isaacs, F.B. 2013. Golden eagles (*Aquila chrysaetos*) nesting in Oregon 2011-2013: Draft Annual Report, 31 December 2013. Oregon Eagle Foundation, Inc., Klamath Falls, Oregon. USA.
- US Fish and Wildlife Service (USFWS). 2013. Eagle Conservation Plan Guidance. Module 1 - Land-Based Wind Energy. Version 2. Division of Migratory Bird Management, USFWS. April 2013. Available online at: [http://www.fws.gov/migratorybirds/Eagle Conservation Plan Guidance-Module%201.pdf](http://www.fws.gov/migratorybirds/Eagle%20Conservation%20Plan%20Guidance-Module%201.pdf)

ATTACHMENT D
WILDLIFE MONITORING AND MITIGATION PLAN (AS APPROVED MAY 2009 IN THE *FINAL*
***ORDER ON THE APPLICATION*)**

1
2
3 **GOLDEN HILLS WIND PROJECT**
4 **WILDLIFE MONITORING AND MITIGATION PLAN**
5

6 This plan describes wildlife monitoring that the certificate holder shall conduct during
7 operation of the Golden Hills Wind Project (GHWP).¹ The monitoring objectives are to
8 determine whether operation of the facility causes significant fatalities of birds and bats and to
9 determine whether the facility results in a loss of habitat quality. Golden Hills wind power
10 project consists of a number of turbine strings, with up to 267 turbines. Each turbine will likely
11 either be a 1.65 MW or 2.5 MW capacity turbine. Hub height of the turbines will be up to
12 approximately 80 (m) tall with a rotor diameter of either 82m (1.65 MW) or 96m (2.5 MW). Up
13 to six permanent meteorological towers will be built. The turbines will be linked by access roads
14 and a 34.5-kV transmission line. The 62-mile-long power collection system will be largely
15 underground, but might be overhead in some locations.
16

17 The certificate holder shall use experienced personnel to manage the monitoring required
18 under this plan and properly trained personnel to conduct the monitoring, subject to approval by
19 the Oregon Department of Energy (Department) as to professional qualifications. For all
20 components of this plan except the Raptor Nesting Surveys and the Wildlife Incident Response
21 and Handling System, the certificate holder shall direct a qualified independent third-party
22 biological monitor, as approved by the Department, to perform monitoring tasks.
23

24 The Wildlife Monitoring and Mitigation Plan for the GHWP has the following
25 components:
26

- 27 1) Fatality Monitoring Program including:
28 a) Removal Trials
29 b) Searcher Efficiency Trials
30 c) Fatality Monitoring Search Protocol
31 d) Statistical Analysis
32 2) Raptor Nesting Surveys
33 3) Avian Use and Behavior Surveys
34 4) Wildlife Incident Response and Handling System
35

36 Following is a discussion of the components of the monitoring plan, statistical analysis
37 methods for fatality data, data reporting and potential mitigation.
38

39 The selection of the mitigation actions that the certificate holder may be required to
40 implement under this plan should allow for flexibility in creating appropriate responses to
41 monitoring results that cannot be known in advance. If the Department determines that
42 mitigation is needed, the certificate holder shall propose appropriate mitigation actions to the

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

1 Department and shall carry out mitigation actions approved by the Department, subject to review
2 by the Oregon Energy Facility Council (Council).

3
4 **1. Fatality Monitoring**

5
6 (a) Definitions and Methods

7
8 Seasons

9
10 This plan uses the following dates for defining seasons:

11

Season	Dates
Spring Migration	March 16 to May 15
Summer/Breeding	May 16 to August 15
Fall Migration	August 16 to October 31
Winter	November 1 to March 15

12
13 Search Plots

14
15 The certificate holder shall conduct fatality monitoring within search plots. The
16 certificate holder, in consultation with the Oregon Department of Fish and Wildlife (ODFW),
17 will select search plots based on a systematic sampling design that ensures the selected search
18 plots are representative of the habitat in different parts of the site. Each search plot will contain
19 one turbine. Search plots will be square or circular. Circular search plots will be centered on the
20 turbine location and will have a radius equal to the maximum blade tip height of the turbine
21 contained within the plot. “Maximum blade tip height” is the turbine hub-height plus one-half
22 the rotor diameter. Square search plots will be of sufficient size to contain a circular search plot
23 as described above.

24
25 The certificate holder shall provide maps of the search plots to the Department and
26 ODFW before beginning fatality monitoring at the facility. The certificate holder will use the
27 same search plots for each search conducted during each monitoring year. During the second
28 monitoring year, new search plots will be selected from the turbines not sampled during the first
29 monitoring year.

30
31 Sample Size

32
33 The sample size for fatality monitoring is the number of turbines searched per monitoring
34 year. The certificate holder shall conduct fatality monitoring during the each monitoring year in
35 search plots at 1/3 of the turbines. If fewer than 150 turbines are built, GHWF shall monitor a
36 minimum of 50 turbines.

37
38 As described in Exhibit B of the ASC, GHWF may choose a combination of smaller
39 turbines with rotor diameter of 82 meters, or larger turbines with rotor diameter greater than 82
40 meters. If the final design of GHWP includes both large and small turbines, then GHWF shall,
41 before beginning fatality monitoring, consult with an independent expert with experience in

1 statistical analysis of avian fatality data to determine whether it would be possible to design a 50-
2 turbine sample with a sufficient number of turbines in each size class to allow statistical
3 comparison of fatality rates for all birds as a group. GHWF shall submit the expert's written
4 analysis to the Department. If the analysis shows that a comparison study is possible and if the
5 Department approves, GHWF shall sample the appropriate number of turbines in each class and
6 conduct the comparison study. GHWF may choose to sample more than 50 turbines in a each
7 monitoring year, if a larger sample size would allow the comparison study to be done.

8
9 Scheduling and Sampling Frequency

10
11 Fatality monitoring will begin upon the commencement of commercial operation of the
12 facility.

13
14 The first fatality monitoring year will commence on the first day of the month following
15 the commercial operation date of the facility and will conclude twelve months later (for example,
16 if commercial operation begins in October of 2008, the monitoring year will commence on
17 November 1, 2008, and conclude on October 31, 2009). Subsequent monitoring years will follow
18 the same schedule (for example, the second monitoring year would begin November 1 of the
19 year in which monitoring is performed, and conclude October 31 of the following year)

20
21 In each monitoring year, the certificate holder shall conduct fatality-monitoring searches
22 at the rates of frequency shown below. Over the course of one monitoring year, the certificate
23 holder would conduct 16 searches², as follows:
24

Season	Frequency
Spring Migration	2 searches per month (4 searches)
Summer/Breeding	1 search per month (3 searches)
Fall Migration	2 searches per month (5 searches)
Winter	1 search per month (4 searches)

25
26 Duration of Fatality Monitoring

27
28 GHWF shall perform one complete monitoring cycle during its first full year of
29 operation. At the end of the first year of monitoring, GHWF will report the results for joint
30 evaluation by ODOE, GHWF and ODFW. In the evaluation, results for GHWP will be compared
31 with the threshold table in section 1(g) of this plan, and with analogous fatality monitoring
32 results for Klondike III, Biglow Canyon, Combine Hills, Nine Canyon, Hopkins Ridge and, if
33 available, Leaning Juniper. Fatality monitoring results from other wind power facilities in the
34 Columbia Basin may also be included, if available. If fatality results for the first year of
35 monitoring at GHWP do not exceed any of the thresholds of concern and are within the range of
36 all results from the facilities listed above, then GHWF will perform its second year of monitoring
37 in year 5 of operations.
38

² GHWF may omit the searches on some turbines, if searches are not possible due to safety reasons .

1 Otherwise, GHWF shall propose additional mitigation within 6 months, for ODOE and
2 ODFW review. Alternately, GHWF may opt to perform a second year of fatality monitoring
3 immediately if it believes that the results of year 1 monitoring were anomalous. If GHWF takes
4 this option, then it will still perform the monitoring in year 5 of operations described above.

5
6 *Meteorological Towers*
7

8 The facility will most likely use non-guyed meteorological towers. Non-guyed towers are
9 known to cause little if any bird and bat mortality. Therefore, monitoring will not occur at non-
10 guyed meteorological towers. If the meteorological towers are guyed, the certificate holder shall
11 search all towers on the same monitoring schedule as fatality monitoring. The certificate holder
12 will use circular search plots. The radius of the circular search plots will extend a minimum of 5
13 meters beyond the most distant guy wire anchor point.

14
15 (b) Removal Trials
16

17 The objective of the removal trials is to estimate the length of time avian and bat
18 carcasses remain in the search area. Carcass removal studies will be conducted during each
19 season in the vicinity of the search plots. Estimates of carcass removal rates will be used to
20 adjust carcass counts for removal bias. “Carcass removal” is the disappearance of a carcass from
21 the search area due to predation, scavenging or other means such as farming activity. Removal
22 rates will be estimated by size class, habitat and season.

23
24 During the first year, the certificate holder shall conduct carcass removal trials within
25 each of the seasons defined above during the years in which fatality monitoring occurs. During
26 the first year in which fatality monitoring occurs, trials will occur in at least eight different
27 calendar weeks in a year, with at least one calendar week between starting dates. Trials will be
28 spread throughout the year to incorporate the effects of varying weather, farming practices and
29 scavenger densities. At least two trials will be started in each season. Each trial will use at least 6
30 carcasses. For each trial, 3 small bird carcasses and 3 large bird carcasses will be distributed in
31 cultivated agriculture habitat and 3 small bird carcasses and 3 large bird carcasses will be
32 distributed in non-cultivated habitat (grassland/shrub-steppe and CRP). In a year, approximately
33 48 carcasses will be placed in cultivated agriculture and 48 carcasses in non-cultivated
34 grassland/shrub-steppe and CRP for a total of about 96 trial carcasses. The number of removal
35 trials may be adjusted up or down during the second year of fatality monitoring, subject to
36 approval by the Department, if the certificate holder can demonstrate that the calculation of
37 fatality rates will continue to have statistical validity with the new sample size.

38
39 The “small bird” size class will use carcasses of house sparrows, starlings, commercially
40 available game bird chicks or legally obtained native birds to simulate passerines. The “large
41 bird” size class will use carcasses of raptors provided by agencies, commercially available adult
42 game birds or cryptically colored chickens to simulate raptors, game birds and waterfowl. If
43 fresh bat carcasses are available, they may also be used.

44
45 To avoid confusion with turbine-related fatalities, planted carcasses will not be placed in
46 fatality monitoring search plots. Planted carcasses will be placed in the vicinity of search plots

1 but not so near as to attract scavengers to the search plots. The planted carcasses will be located
2 randomly within the carcass removal trial plots.
3

4 Carcasses will be placed in a variety of postures to simulate a range of conditions. For
5 example, birds will be: 1) placed in an exposed posture (e.g., thrown over the shoulder), 2)
6 hidden to simulate a crippled bird (e.g., placed beneath a shrub or tuft of grass) and, 3) partially
7 hidden. Trial carcasses will be marked discreetly for recognition by searchers and other
8 personnel. Trial carcasses will be left at the location until the end of the carcass removal trial.
9

10 It is expected that carcasses will be checked as follows, although actual intervals may
11 vary. Carcasses will be checked for a period of 40 days to determine removal rates. They will be
12 checked about every day for the first 4 days, and then on day 7, day 10, day 14, day 20, day 30
13 and day 40. This schedule may vary depending on weather and coordination with the other
14 survey work. At the end of the 40-day period, the trial carcasses and scattered feathers will be
15 removed.
16

17 (c) Searcher Efficiency Trials 18

19 The objective of searcher efficiency trials is to estimate the percentage of bird and bat
20 fatalities that searchers are able to find. The certificate holder shall conduct searcher efficiency
21 trials on the fatality-monitoring search plots in both grassland/shrub-steppe and cultivated
22 agriculture habitat types. Searcher efficiency will be estimated by size class, habitat type, and
23 season. Estimates of searcher efficiency will be used to adjust carcass counts for detection bias.
24

25 Searcher efficiency trials will be conducted in each season as defined above, during the
26 years in which the fatality monitoring occurs. Trials will be spread throughout the year to
27 incorporate the effects of varying weather, farming practices and scavenger densities. At least
28 two trials will be conducted in each season. Each trial will use about 12 carcasses, although the
29 number will be variable so that the searcher will not know the total number of trial carcasses
30 being used in any trial. For each trial, both small bird and large bird carcasses will be used in
31 about equal numbers. “Small bird” and “large bird” size classes and carcass selection are as
32 described above for the removal trials. An equal proportion of the trial carcasses will be
33 distributed in cultivated agriculture habitat and in non-cultivated habitat (grassland/shrub steppe
34 and CRP). In a year, about 48 carcasses will be placed in cultivated agriculture and about 48 in
35 non-cultivated grassland/shrub steppe and CRP for a total of about 96 trial carcasses. The
36 number of searcher efficiency trials may be reduced to one per season during the second year of
37 fatality monitoring, subject to approval by the Department, if the certificate holder can
38 demonstrate that the calculation of fatality rates will continue to have statistical validity with the
39 reduced sample size.
40

41 Personnel conducting searches will not know in advance when trials are conducted; nor
42 will they know the location of the trial carcasses. If suitable trial carcasses are available, trials
43 during the fall season will include several small brown birds to simulate bat carcasses. Legally
44 obtained bat carcasses will be used if available.
45

1 On the day of a standardized fatality monitoring search (described below) but before the
2 beginning of the search, efficiency trial carcasses will be placed at random locations within areas
3 to be searched. If scavengers appear attracted by placement of carcasses, the carcasses will be
4 distributed before dawn.

5
6 Searcher efficiency trials will be spread over the entire season to incorporate effects of
7 varying weather and vegetation growth. Carcasses will be placed in a variety of postures to
8 simulate a range of conditions. For example, birds will be: 1) placed in an exposed posture
9 (thrown over the shoulder), 2) hidden to simulate a crippled bird and 3) partially hidden.

10
11 Each non-domestic carcass will be discreetly marked so that it can be identified as an
12 efficiency trial carcass after it is found. The number and location of the efficiency trial carcasses
13 found during the carcass search will be recorded. The number of efficiency trial carcasses
14 available for detection during each trial will be determined immediately after the trial by the
15 person responsible for distributing the carcasses.

16
17 If new searchers are brought into the search team, additional detection trials will be
18 conducted to ensure that detection rates incorporate searcher differences. If GHWF does not
19 perform a second year of monitoring until the 5th year of operation, then searcher efficiency and
20 removal trials shall be repeated to ensure that the removal and detection rates used to estimate
21 overall fatalities account for new searchers and changed predation or scavenger behavior
22 patterns.

23 24 (d) Coordination with the other Wind Projects

25
26 It is anticipated that other wind projects in Sherman County may be monitored at the
27 same time that Golden Hills is monitored. If these projects are permitted through EFSEC, they
28 will require similar wildlife monitoring. Subject to the approval of both certificate holders and
29 the Department, the number of trials at each site and the number of trial carcasses used at each
30 site can be reduced by combining the removal data and efficiency data from multiple facilities, if
31 the certificate holder can demonstrate that the calculation of fatality rates will continue to have
32 statistical validity for both facilities and that combining the data will not affect any other
33 requirements of the monitoring plans for either facility.

34 35 (e) Fatality Monitoring Search Protocol

36
37 The objective of fatality monitoring is to estimate the number of bird and bat fatalities
38 that are attributable to facility operation and associated variances. The certificate holder shall
39 conduct fatality monitoring using standardized carcass searches.

40
41 The certificate holder shall use a worst-case analysis to resolve any uncertainty in the
42 results and to determine whether the data indicate that additional mitigation should be
43 considered. The Department may require additional, targeted monitoring if the data indicate the
44 potential for significant impacts that cannot be addressed by worst-case analysis and appropriate
45 mitigation.

1 The certificate holder shall estimate the number of avian and bat fatalities attributable to
2 operation of the facility based on the number of avian and bat fatalities found at the facility site.
3 All carcasses located within areas surveyed, regardless of species, will be recorded and, if
4 possible, a cause of death determined based on blind necropsy results. If a different cause of
5 death is not apparent, the fatality will be attributed to facility operation. The total number of
6 avian and bat carcasses will be estimated by adjusting for removal and searcher efficiency bias.
7

8 Personnel trained in proper search techniques (“the searchers”) will conduct the carcass
9 searches by walking parallel transects within the search plots.³ Transects will be initially set at 6
10 meters apart in the area to be searched. A searcher will walk at a rate of about 45 to 60 meters
11 per minute along each transect searching both sides out to three meters for casualties. Search area
12 and speed may be adjusted by habitat type after evaluation of the first searcher efficiency trial.
13 The searchers will record the condition of each carcass found, using the following condition
14 categories:
15

- 16 § Intact – a carcass that is completely intact, is not badly decomposed and shows no
17 sign of being fed upon by a predator or scavenger
- 18 § Scavenged – an entire carcass that shows signs of being fed upon by a predator or
19 scavenger, or portions of a carcass in one location (e.g., wings, skeletal remains, legs,
20 pieces of skin, etc.)
- 21 § Feather Spot – 10 or more feathers at one location indicating predation or scavenging
22 or 2 or more primary feathers
23

24 All carcasses (avian and bat) found during the standardized carcass searches will be
25 photographed as found, recorded and labeled with a unique number. Distance from observer to
26 the carcass will be measured (to the nearest 0.25 meters), as will the perpendicular distance from
27 the transect line to the carcass. Each carcass will be bagged and frozen for future reference and
28 possible necropsy. A copy of the data sheet for each carcass will be kept with the carcass at all
29 times. For each carcass found, searchers will record species, sex and age when possible, date and
30 time collected, location, condition (e.g., intact, scavenged, feather spot) and any comments that
31 may indicate cause of death. Searchers will map the find on a detailed map of the search area
32 showing the location of the wind turbines and associated facilities such as power lines. The
33 certificate holder shall coordinate collection of state endangered, threatened, sensitive or other
34 state protected species with ODFW. The certificate holder shall coordinate collection of
35 federally-listed endangered or threatened species and Migratory Bird Treaty Act protected avian
36 species with the U.S. Fish and Wildlife Service (USFWS). The certificate holder shall obtain
37 appropriate collection permits from ODFW and USFWS.
38

39 The searchers might discover carcasses incidental to formal carcass searches (e.g., while
40 driving within the project area). For each incidentally discovered carcass, the searcher shall
41 identify, photograph, record data and collect the carcass as would be done for carcasses within
42 the formal search sample during scheduled searches
43

³ Where search plots are adjacent, the search area may be rectangular.

1 If the incidentally discovered carcass is found within a formal search plot, the fatality
2 data will be included in the calculation of fatality rates. If the incidentally discovered carcass is
3 found outside a formal search plot, the data will be reported separately.
4

5 The certificate holder shall coordinate collection of incidentally discovered state
6 endangered, threatened, sensitive or other state protected species with ODFW. The certificate
7 holder shall coordinate collection of incidentally discovered federally-listed endangered or
8 threatened species and Migratory Bird Treaty Act protected avian species with the USFWS.
9

10 The certificate holder shall develop and follow a protocol for handling injured birds. Any
11 injured native birds found on the facility site will be carefully captured by a trained project
12 biologist or technician and transported to Jean Cypher (wildlife rehabilitator) in The Dalles, the
13 Blue Mountain Wildlife Rehabilitation Center in Pendleton or the Audubon Bird Care Center in
14 Portland in a timely fashion.⁴ The certificate holder shall pay costs, if any are charged, for time
15 and expenses related to care and rehabilitation of injured native birds found on the site, unless
16 the cause of injury is clearly demonstrated to be unrelated to the facility operations.
17

18 (f) Statistical Methods for Fatality Estimates

19

20 The estimate of the total number of wind facility-related fatalities is based on:

- 21
- 22 (1) The observed number of carcasses found during standardized searches during the two
23 monitoring years for which the cause of death is attributed to the facility.⁵
24
 - 25 (2) Searcher efficiency expressed as the proportion of planted carcasses found by
26 searchers.
27
 - 28 (3) Non-removal rates expressed as the estimated average probability a carcass is
29 expected to remain in the study area and be available for detection by the searchers
30 during the entire survey period.
31

32 Definition of Variables

33

34 The following variables are used in the equations below:

- 35 c_i the number of carcasses detected at plot i for the study period of interest (e.g., one
36 year) for which the cause of death is either unknown or is attributed to the facility
37 n the number of search plots
38 k the number of turbines searched (includes the turbines centered within each
39 search plot and a proportion of the number of turbines adjacent to search plots to
40 account for the effect of adjacent turbines on the 90-meter search plot buffer area)
41 \bar{c} the average number of carcasses observed per turbine per year
42 s the number of carcasses used in removal trials
43 s_c the number of carcasses in removal trials that remain in the study area after 40
44 days

⁴ The people and centers listed here may be changed with Department approval.

⁵ If a different cause of death is not apparent, the fatality will be attributed to facility operation.

1	se	standard error (square of the sample variance of the mean)
2	t_i	the time (days) a carcass remains in the study area before it is removed
3	\bar{t}	the average time (days) a carcass remains in the study area before it is removed
4	d	the total number of carcasses placed in searcher efficiency trials
5	p	the estimated proportion of detectable carcasses found by searchers
6	I	the average interval between searches in days
7	$\hat{\rho}$	the estimated probability that a carcass is both available to be found during a
8		search and is found
9	m_t	the estimated annual average number of fatalities per turbine per year, adjusted
10		for removal and observer detection bias
11	C	nameplate energy output of turbine in megawatts (MW)

12

13 Observed Number of Carcasses

14

15 The estimated average number of carcasses (\bar{c}) observed per turbine per year is:

16

17
$$\bar{c} = \frac{\sum_{i=1}^n c_i}{k} . \tag{1}$$

18

19 Estimation of Carcass Removal

20

21 Estimates of carcass removal are used to adjust carcass counts for removal bias. Mean
 22 carcass removal time (\bar{t}) is the average length of time a carcass remains at the site before it is
 23 removed:

24

25
$$\bar{t} = \frac{\sum_{i=1}^s t_i}{s - s_c} . \tag{2}$$

26

27 This estimator is the maximum likelihood estimator assuming the removal times follow an
 28 exponential distribution and there is right-censoring of data. Any trial carcasses still remaining at
 29 40 days are collected, yielding censored observations at 40 days. If all trial carcasses are
 30 removed before the end of the trial, then s_c is 0, and \bar{t} is just the arithmetic average of the
 31 removal times. Removal rates will be estimated by carcass size (small and large) and season.

32

33 Estimation of Observer Detection Rates

34

35 Observer detection rates (i.e., searcher efficiency rates) are expressed as p , the proportion
 36 of trial carcasses that are detected by searchers. Observer detection rates will be estimated by
 37 carcass size and season.

38

39 Estimation of Facility-Related Fatality Rates

40

1 The estimated per turbine annual fatality rate (m_t) is calculated by:

$$2 \quad m_t = \frac{\bar{c}}{\hat{\rho}}, \quad (3)$$

4 where $\hat{\rho}$ includes adjustments for both carcass removal (from scavenging and other means) and
5 observer detection bias assuming that the carcass removal times t_i follow an exponential
6 distribution unless a different assumption about carcass removal is made with the approval of the
7 Department. Under these assumptions, this detection probability is estimated by:
8
9

$$10 \quad \hat{\rho} = \frac{\bar{t} \times p \times \left(\exp\left(\frac{I}{\bar{t}}\right) - 1 \right)}{I \times \left(\exp\left(\frac{I}{\bar{t}}\right) - 1 + p \right)}. \quad (4)$$

11 The estimated per MW annual fatality rate (m) is calculated by:

$$12 \quad m = \frac{m_t}{C}. \quad (5)$$

13
14
15 The certificate holder shall calculate fatality estimates for: (1) all birds, (2) small birds,
16 (3) large birds, (4) raptors, (5) target grassland birds, (6) nocturnal avian migrants, 7) avian State
17 Sensitive Species listed under OAR 635-100-0040, and 8) bats. The final reported estimates of
18 m , associated standard errors and 90% confidence intervals will be calculated using
19 bootstrapping (Manly 1997). Bootstrapping is a computer simulation technique that is useful for
20 calculating point estimates, variances and confidence intervals for complicated test statistics. For
21 each iteration of the bootstrap, the plots will be sampled with replacement, trial carcasses will be
22 sampled with replacement and \bar{c} , \bar{t} , p , $\hat{\rho}$ and m will be calculated. A total of 5,000 bootstrap
23 iterations will be used. The reported estimates will be the means of the 5,000 bootstrap estimates.
24 The standard deviation of the bootstrap estimates is the estimated standard error. The lower 5th
25 and upper 95th percentiles of the 5000 bootstrap estimates are estimates of the lower limit and
26 upper limit of 90% confidence intervals.
27
28

29 Nocturnal Migrant and Bat Fatalities

30
31 Differences in observed nocturnal avian migrant and bat fatality rates for lit turbines,
32 unlit turbines that are adjacent to lit turbines, and unlit turbines that are not adjacent to lit
33 turbines will be compared graphically and statistically.
34

35 (g) Mitigation

36
37 Mitigation may be appropriate if analysis of the fatality data collected after the first
38 monitoring year shows fatality rates for avian species that exceed a threshold of concern. For the
39 purpose of determining whether a threshold has been exceeded, the certificate holder shall
40 calculate the average annual fatality rates for the species groups after the initial two years of

1 monitoring. Based on current knowledge of the species that are likely to use the habitat in the
 2 area of the facility, the following thresholds apply to the GHWP:
 3

Species Group	Threshold of Concern (fatalities per MW)
Raptors (All eagles, hawks, falcons and owls, including burrowing owls.)	0.09
Raptor species of special concern (Swainson’s hawk, ferruginous hawk, peregrine falcon, golden eagle, bald eagle, burrowing owl and any federal threatened or endangered raptor species.)	0.06
Target grassland birds (All native bird species that rely on grassland habitat and are either resident species, occurring year round, or species that nest in the area, excluding horned lark, burrowing owl and northern harrier.)	0.59
State sensitive avian species listed under OAR 635-100-0040 (Excluding raptors listed above.)	0.20
Bat species as a group	2.50
Guyed Meteorological Tower Mortality	
Raptor T&E species and raptor species of special concern, as a group (Swainson’s hawk, ferruginous hawk, golden eagle and burrowing owl; bald eagle, peregrine falcon, and any other federal threatened or endangered raptor species)	0.20/ guyed tower
Avian State Sensitive Species listed under OAR 635-100-0040 (Excluding raptors)	0.20/ guyed tower

4
 5 Before the end of the first monitoring year, GHWF shall form a technical advisory
 6 committee (TAC) that will include at least GHWF, ODOE and ODFW. Other stakeholders, such
 7 as USFWS, may also serve on the TAC. The TAC shall consider the fatality monitoring results
 8 from Klondike III, Biglow Canyon, Nine Canyon, Leaning Juniper, Hopkins Ridge, Combine
 9 Hills, and other wind projects in Sherman County if available, and determine if the thresholds
 10 should be adjusted.

11
 12 In addition, mitigation may be appropriate if fatality rates for individual species
 13 (especially State Sensitive Species) are higher than expected and at a level of biological concern.
 14 If the data show that a threshold of concern for a species group has been exceeded or that the
 15 fatality rate for any individual species is at a level of biological concern, mitigation shall be
 16 required if the Department determines that mitigation is appropriate based on analysis of the data
 17 and any other significant information available at the time. If mitigation is appropriate, the
 18 certificate holder, in consultation with ODFW, shall propose mitigation measures designed to
 19 benefit the affected species. This may take into consideration whether mitigation required or
 20 provided for other impacts, such as raptor nesting or grassland bird displacement, would also
 21 benefit the affected species.

22
 23 The certificate holder shall implement mitigation as approved by the Council. The
 24 Department may recommend additional, targeted data collection if the need for mitigation is
 25 unclear based on the information available at the time. The certificate holder shall implement
 26 such data collection as approved by the Council.

1
2 Mitigation shall be designed to benefit the affected species group. Mitigation may
3 include, but is not limited to, protection of nesting habitat for the affected group of native species
4 through a conservation easement or similar agreement. Tracts of land that are intact and
5 functional for wildlife are preferable to degraded habitat areas. Preference should be given to
6 protection of land that would otherwise be subject to development or use that would diminish the
7 wildlife value of the land. In addition, mitigation measures might include: enhancement of the
8 protected tract by weed removal and control; increasing the diversity of native grasses and forbs;
9 planting sagebrush or other shrubs; constructing and maintaining artificial nest structures for
10 raptors; reducing cattle grazing; improving wildfire response; and local research that would aid
11 in understanding more about the species and conservation needs.

12
13 If the threshold for bats species as a group is exceeded, the certificate holder shall
14 contribute to Bat Conservation International or to a Pacific Northwest bat conservation group
15 (\$10,000 per year for three years) to fund new or ongoing research in the Pacific Northwest to
16 better understand impacts to the bat species impacted by the facility and to develop possible
17 ways to reduce impacts to the affected species.

18
19 In addition, mitigation may be appropriate if fatality rates for a State Sensitive bat species
20 listed under OAR 635-100-0040 are higher than expected and at a level of concern. If the data
21 show that a threshold of concern for a species group has been exceeded or that the fatality rate
22 for any individual species is at a level of concern, mitigation shall be required if the Department
23 determines that mitigation is appropriate based on analysis of the data and any other significant
24 information available at the time. If mitigation is appropriate, the certificate holder, in
25 consultation with ODFW, shall propose mitigation measures designed to benefit the affected
26 species. The certificate holder shall implement mitigation as approved by the Council.

27 28 **2. Raptor Nest Surveys**

29
30 The objectives of raptor nest surveys are to estimate the size of the local breeding
31 populations of tree or other above-ground-nesting raptor species in the vicinity of the facility and
32 to determine whether operation of the facility results in a reduction of nesting activity or nesting
33 success in the local populations of the following raptor species: Swainson's hawk, ferruginous
34 hawk and golden eagle. The certificate holder shall direct a qualified biologist, approved by the
35 Department, to conduct the raptor nest surveys. The certificate holder may select other qualified
36 biologists to conduct the raptor nest surveys, subject to Department approval.

37 38 (a) Survey Protocol

39
40 For the species listed above, aerial and ground surveys will be used to gather nest success
41 data on active nests, nests with young and young fledged. The certificate holder will share the
42 data with state and federal biologists. The certificate holder shall conduct two years of post-
43 construction raptor nest surveys for the completed facility during the sensitive nesting and
44 breeding season. One year of post-construction surveys will be done in the first nesting season
45 after construction is completed. The second year of post-construction surveys will be done at a
46 time recommended by the certificate holder and approved by the Department. The certificate

1 holder may collaborate with other certificate holders in the vicinity of the facility in the
2 development of useful information about future impacts on raptor nesting activity and nesting
3 success.

4
5 Prior to the raptor nesting surveys, the certificate holder shall review the locations of
6 known raptor nests based on the GHWP, the Biglow Canyon Wind Farm and Klondike Wind
7 Project pre-construction surveys as well as any nest survey data collected after construction. All
8 known nest sites and any new nests observed within the GCWF site and within two miles of the
9 GHWP site will be given identification numbers. Nest locations will be recorded on U.S.
10 Geological Survey 7.5-minute quadrangle maps. Global positioning system coordinates will be
11 recorded for each nest and integrated with the baseline database. Locations of inactive nests will
12 also be recorded as they may become occupied during future years.

13
14 During each raptor nesting monitoring year, the certificate holder shall conduct a
15 minimum of one helicopter survey in late May or early June within the GHWP site and a 2-mile
16 zone around the turbines to determine nest occupancy. Determining nest occupancy will likely
17 require two visits to each nest: The second visit may be done by air or by ground as appropriate.
18 For occupied nests of the species identified above, the certificate holder shall determine nesting
19 success by a minimum of one ground visit to determine species, number of young and nesting
20 success. "Nesting success" means that the young have successfully fledged (the young are
21 independent of the core nest site). Nests that cannot be monitored due to the landowner denying
22 access will be checked from a distance where feasible.

23
24 (b) Mitigation

25
26 The certificate holder shall analyze the raptor nesting data collected after two monitoring
27 years to determine whether a reduction in either nesting success or nest use has occurred in the
28 vicinity of the GHWP. If the analysis indicates a reduction in nesting success by Swainson's
29 hawk, ferruginous hawk or golden eagle within two miles of the facility (including the area
30 within the GHWP site), then the certificate holder shall propose appropriate mitigation and shall
31 implement mitigation as approved by the Council. At a minimum, if the analysis shows that any
32 of these species has abandoned a nest territory within the facility site or within ½ mile of the
33 facility site, or has not fledged any young over the two survey years within the facility site or
34 within ½ mile of the facility site, the certificate holder shall assume the abandonment or
35 unsuccessful fledging is the result of the facility unless another cause can be demonstrated
36 convincingly. If the GHWP facility and the Klondike III facility are both required to provide
37 mitigation for the same nest, the two certificate holders shall coordinate the required mitigation
38 with the approval of the Department.

39
40 Given the very low buteo nesting densities in the area, statistical power to detect a
41 relationship between distance from a wind turbine and nesting parameters (*e.g.*, number of
42 fledglings per reproductive pair) will be very low. Therefore, impacts may have to be judged
43 based on trends in the data, results from other wind energy facility monitoring studies and
44 literature on what is known regarding the populations in the region.

1 If the analysis shows that mitigation is appropriate, the certificate holder shall propose
2 mitigation for the affected species in consultation with the Department and ODFW, and shall
3 implement mitigation as approved by the Council. Mitigation should be designed to benefit the
4 affected species or contribute to overall scientific knowledge and understanding of what causes
5 nest abandonment or nest failure. Mitigation may be designed to proceed in phases over several
6 years. It may include, but is not limited to, additional raptor nest monitoring, protection of
7 natural nest sites from human disturbance or cattle activity (preferably within the general area of
8 the facility), or participation in research projects designed to improve scientific understanding of
9 the needs of the affected species. Mitigation may take into consideration whether mitigation
10 required or provided for other impacts, such as fatality impacts or grassland bird displacement,
11 would also benefit the raptor species whose nesting success was adversely affected.

12 13 (c) Long-term Raptor Nest Monitoring and Mitigation 14

15 In addition to the two years of post-construction raptor nest surveys described in
16 subsection (a), GHWF shall conduct long-term raptor nest surveys at five year intervals for the
17 life of the facility. GHWF shall conduct the first long-term raptor nest survey in the ninth year
18 after construction is completed. In conducting long-term surveys, GHWF shall follow the same
19 survey protocols as described above in subsection (a) unless GHWF proposes an alternative
20 protocol that is approved by the Department. In developing an alternative protocol, GHWF shall
21 consult with ODFW.
22

23 GHWF shall analyze the raptor nesting data collected after each year of long-term raptor
24 nest surveys to determine whether a reduction in either nesting success or nest use has occurred
25 in the vicinity of the GHWP. If the analysis indicates a reduction in nesting success or nest use
26 by Swainson's hawks, golden eagles, or ferruginous hawks within the facility site or within 2
27 miles of the site, then GHWF shall propose appropriate mitigation for the affected species as
28 described in subsection (b) and shall implement mitigation as approved by the Council. At a
29 minimum, if the analysis shows that any raptors of these species have abandoned a nest territory
30 within the facility site or within ½ mile of the facility site or has not fledged any young within
31 that same area, GHWF shall assume the abandonment or unsuccessful fledging is due to
32 operation of the facility unless another cause can be demonstrated convincingly.
33

34 Any reduction in nesting success or nest use could be due to operation of the GHWP
35 facility, operation of another wind facility in the vicinity or some other cause. GHWF shall
36 attribute the reduction to operation of GHWP if the wind turbine closest to the affected nest site
37 is a GHWP turbine unless GHWF demonstrates, and the Department agrees, that the reduction
38 was due to a different cause.
39

40 Given the low raptor nesting densities in the area, statistical power to detect a relationship
41 between distance from a wind turbine and nesting parameters (e.g. number of fledglings per
42 reproductive pair) will be very low. Therefore, impacts may have to be judged based on trends in
43 the data, results from other wind energy facility monitoring studies and literature on what is
44 known regarding the population in the region.
45

46 **3. Avian Use and Behavior Surveys**

1
2 Searchers will also record bird species observed and their behavior relative to turbine
3 locations before or after each standardized carcass search (as described in Section 1(e) above).
4 Observations will be recorded during 5-minute surveys at each turbine sampled during the
5 fatality-monitoring program, using standard variable circular plot point count survey methods.
6 Collection and recording of these additional observations of live birds will be carried out in a
7 manner that does not distract searchers from carrying out the standardized carcass searches.
8

9 All of these avian use and behavior data, as well as raptor and waterfowl mortality
10 observed at the turbines near these stations, will be used to understand direct and indirect impacts
11 of the GHWP facility on raptors, waterfowl and other avian species. The certificate holder shall
12 include an analysis of this data in the reports described in Section 5.
13

14 **4. GHWP Wildlife Incident Response and Handling System**

15
16 The Wildlife Incident Response and Handling System is a monitoring program set up for
17 responding to and handling avian and bat casualties found by construction and maintenance
18 personnel during construction and operation of the facility. This monitoring program includes the
19 initial response, the handling and the reporting of bird and bat carcasses discovered incidental to
20 construction and maintenance operations (“incidental finds”). Construction and maintenance
21 personnel will be trained in the methods needed to carry out this program.
22

23 All carcasses discovered by construction or maintenance personnel will be photographed,
24 recorded and collected.
25

26 If construction or maintenance personnel find carcasses within the plots for protocol
27 searches, they will notify a qualified biologist, as approved by the Department, who will collect
28 the carcasses. The fatality data will be included in the calculation of fatality rates.
29

30 If construction or maintenance personnel discover incidental finds that are not within
31 plots for fatality monitoring protocol searches, they will notify a qualified biologist, as approved
32 by the Department, and the carcass will be collected by a carcass-handling permittee (a person
33 who is listed on state and federal scientific or salvage collection permits). Data for these
34 incidental finds will be reported separately from standardized fatality monitoring data.
35

36 The certificate holder shall coordinate collection of state endangered, threatened,
37 sensitive or other state protected species with ODFW. The certificate holder shall coordinate
38 collection of federally-listed endangered or threatened species and Migratory Bird Treaty Act
39 protected avian species with the USFWS.
40

41 **5. Data Reporting**

42
43 The certificate holder will report the monitoring data and analysis to the Department.
44 Monitoring data include fatality monitoring program data, raptor nest survey data, avian use and
45 behavior survey data and data on incidental finds by fatality searchers and GHWF personnel.
46 The report may be included in the annual report required under OAR 345-026-0080 or may be

1 submitted as a separate document at the same time the annual report is submitted. In addition, the
2 certificate holder shall provide to the Department any data or record generated in carrying out
3 this monitoring plan upon request by the Department.
4

5 The certificate holder shall immediately notify USFWS and ODFW, respectively, in the
6 event that any federal or state endangered or threatened species are killed or injured on the
7 facility site.
8

9 The public will have an opportunity to receive information about monitoring results and
10 to offer comment. Within 30 days after receiving the annual report of monitoring results, the
11 Department will make the report available to the public on its website and will specify a time in
12 which the public may submit comments to the Department.⁶
13

14 **6. Amendment of the Plan**

15

16 This Wildlife Monitoring and Mitigation Plan may be amended from time to time by
17 agreement of the certificate holder and the Council. Such amendments may be made without
18 amendment of the site certificate. The Council authorizes the Department to agree to
19 amendments to this plan and to mitigation actions that may be required under this plan. The
20 Department shall notify the Council of all amendments and mitigation actions, and the Council
21 retains the authority to approve, reject or modify any amendment of this plan or mitigation action
22 agreed to by the Department.
23
24

⁶ The certificate holder may establish a Technical Advisor Committee (TAC) but is not required to do so. If the certificate holder establishes a TAC, the TAC may offer comments to the Council about the results of the monitoring required under this plan.

ATTACHMENT E
DRAFT HABITAT MITIGATION AND REVEGETATION PLAN (AS APPROVED MAY 2009 IN THE
***FINAL ORDER ON THE APPLICATION*)**

Golden Hills Wind Project: Habitat Mitigation & Revegetation Plan

1.0 Introduction

BPAE is proposing to construct a wind power project in Sherman County, Oregon. The potential turbine strings are spread along ridgecrests located approximately 2.5 miles (mi.) northeast of the town of Wasco, Oregon. In addition to the turbine strings, additional facilities such as access roads, underground and overhead transmission lines, and a substation are being constructed to implement the project.

In the Energy Facility Application for a Site Certificate (Application) for the project, BPAE agreed to mitigate impacts associated with the loss of native shrub-steppe habitats and Conservation Reserve Program (CRP) lands. The goal for temporarily disturbed areas (such as road shoulders, underground electric cable trenches, and the temporarily disturbed area around tower sites) is to return the disturbed habitat to pre-construction (or better) conditions.

In addition to areas temporarily disturbed during construction of the project, certain areas will be permanently affected by the placement of project facilities for the life of the project. These permanently disturbed areas include the location of new or widened roads, the area under tower bases, and the substation area.

Based on the pre-construction estimates, approximately 0.91 acres of Category 2 habitat, 10.29 acres of Category 3 and 0.97 acres of Category 4 habitat will be permanently disturbed and will require mitigation. Thus, 12.17 acres of Category 2, 3 or 4 habitat will be enhanced or created. In practice this will result in a mitigation ratio slightly greater than 1:1 because expected impacts are less than the maximum possible impacts used in the pre-construction estimates. Approximately 127 acres of cultivated agriculture land may be impacted by permanent facilities. Impacts to the agriculture land will be mitigated by:

- Developing a noxious weed control plan following guidelines based upon consultation with the Sherman County Soil and Water Conservation District and ODFW. The noxious weed control plan will be approved by ODOE and finalized prior to construction.
- The noxious weed control plan will be implemented utilizing Best Management Practices (BMPs) to minimize topsoil loss, and complying with an erosion and sedimentation control plan approved by DEQ as part of the NPDES program in areas adjacent to drainage features.
- Sherman County Soil and Water Conservation District will be consulted for proper procedures for restoring agricultural quality to its original condition.

To achieve these habitat mitigation objectives, this plan has been prepared to guide revegetation efforts. Seed mixes, planting methods, and weed control techniques have been developed specifically for the project area through consultations with the affected agencies, reviews of current literature, and site visits by revegetation specialists. The plan also specifies monitoring

procedures to evaluate the success of revegetation efforts, including recommended remediative action should initial revegetation efforts prove unsuccessful in some areas.

2.0 Project Description

The Project will be located on private land in an unincorporated area of Sherman County. The Project will interconnect with the Bonneville Power Administration's (BPA) transmission system at two locations; one near Klondike Schoolhouse Substation (200 MW) and one at John Day Substation (200 MW). Transmission from the project substations to the interconnection points will involve one 4-mile long overhead transmission line and one 11-mile long overhead transmission line.

Golden Hills wind power project will consist of a number of turbine strings, with up to 267 turbines. Each turbine will likely either be a 1.65 MW or 2.5 MW capacity turbine. Hub height of the turbines will be up to approximately 80 m tall with a rotor diameter of either 82 m (1.65 MW) or 96 m (2.5 MW). Up to six permanent meteorological towers will be built. The turbines will be linked by access roads and a 34.5-kV transmission line. The 62-mile long power collection system will be largely underground, but might be overhead in some locations.

Two project substations may be built. In addition, an operations and maintenance (O&M) facility (including a shop), a control room, a maintenance yard, a kitchen, an office, a washroom, and other provisions typical of this type of facility, will be built.

This project will convert approximately 141 total acres to permanent structures and roads. Other facilities which will permanently disturb habitat include turnaround areas, substation sites, and transmission line pole bases. Less than 10% of the permanent habitat impacts will occur to CRP grassland, and native grassland and shrub-steppe habitats; the remainder of the impact will occur on cultivated land.

It will also be necessary to temporarily disturb additional areas during construction of the project. Laydown areas and equipment work areas at the tower sites will be needed to construct the turbines. Construction of access roads will also require the temporary disturbance of habitat in addition to permanent disturbance of the roadbed. Construction of powerlines, both above and below ground, will also temporarily impact habitat. For the underground lines, temporary impacts are similar to pipeline installation, while for the overhead lines, disturbance is primarily limited to the tower bases. Additionally, miscellaneous facilities such as staging areas, parking lots, and turnouts will be constructed on a temporary basis. In total, it is estimated that 1074.5 acres will be temporarily disturbed during construction; 746.2 acres of that area will be on land used for agriculture.

3.0 Site Setting

3.1 Physiography, Geology, and Soils

The turbine string sites are located on ridgetops that run along northeast-southwest lines, as well as on flat terrain. Topography in the facility area is characterized by gently rolling hills with slopes from 0° to 70°. Steeper topography is associated with the Grass Valley Canyon and associated side drainages. Elevations of the turbines strings ranges from 1,066 ft. to 2,201 ft (325 m to 671 m) above mean sea level. Soils within the project area are primarily deep, well-drained loams, and are used to cultivate small grains and hay or for livestock grazing (Macdonald et al. 1999).

3.2 Climate

Sherman County averages 11.11 inches (in.) of precipitation annually, most of which falls from October through March. Average winter snowfall is 18.9 in. The average air temperature in winter is 32.9° F and the average summer temperature is 65.4° F (Macdonald et al. 1999).

3.3 Landcover/General Vegetation

Land coverages in the project area consist primarily of cultivated agriculture (dryland wheat; 83%), followed by shrub-steppe/grassland (10%) and Conservation Reserve Program (CRP) grassland (4%), with less than 2% each of developed, riparian tree, riparian-intermittent stream (IS), upland tree, and Conservation Reserve Enhancement Program (CREP) habitats.

Vegetation communities in the project vicinity are primarily bunchgrass and shrub-steppe associations including some historic climax communities. Grasses include: bluebunch wheatgrass (*Pseudoroegneria spicata* ssp. *spicata*), Idaho fescue (*Festuca idahoensis*), and Sandberg bluegrass (*Poa secunda*). Forbs representative of these communities include arrowleaf balsamroot (*Balsamorhiza sagittata*), milkvetch (*Astragalus* sp.), lomatium (*Lomatium dissectum*), common yarrow (*Achillea millefolium*), lupine (*Lupinus* sp.), phlox (*Phlox* sp.), and pussytoes (*Antennaria* sp.). Shrub species include gray rabbitbrush (*Ericameria nauseosa*), Greene's rabbitbrush (*Ericameria greenei*), and basin big sagebrush (*Artemisia tridentata* ssp. *tridentata*). In heavily disturbed areas, the following weedy and noxious species occur: cereal rye (*Secale cereale*), cheat grass (*Bromus tectorum*), Russian thistle (*Salsola kali*), tumblemustard (*Thelypodopsis* sp.), China lettuce (*Lactuca serriola*), prostrate knotweed (*Polygonum aviculare*), and knapweed (*Centaurea* sp.) Much of the area has been cultivated with monoculture crops of wheat and other small grains.

3.4 Land Use

The project area is located on privately-owned land. As mentioned above, much of the area is used for agricultural activities and cattle grazing. The cultivated land is used for production of small grain crops, primarily dry land wheat and barley. The grazed land is either native shrub-steppe or land previously set aside in the federal Conservation Reserve Program.

3.5 Environmental Conditions

A variety of environmental conditions within the project area make the establishment of desirable plant species difficult. Low precipitation and sandy soils provide very little available moisture for germinating seeds. In addition, extensive past and present disturbance to the vegetative communities has created many areas dominated by non-native, weedy species. These species could spread to areas disturbed by construction activities and compete with planted species for the limited resources. Finally, high winds in the area further complicate efforts to establish desirable vegetation.

3.6 Pre Construction Inventory

The site certificate authorizes construction on corridors rather than specific turbine locations. The precise impact of construction, therefore, depends on the final project design. Therefore, prior to disturbing any area, GHWF will conduct an impact inventory, to be conducted by a qualified biologist. The pre-construction inventory will include:

- The ODFW habitat category for the area disturbed,
- The number of acres impacted,
- Photos representing the habitat,
- An assessment of dominant plant species, and
- The percentage of vegetative ground cover

4.0 Revegetation Procedures (Temporarily Disturbed Areas)

The following methods are to be used for all areas of temporary ground and/or vegetation disturbance in the upland habitats throughout the project area. Because no disturbance to wetland habitats is expected, no wetland revegetation methods have been specified.

4.1 Seed Mixture (Temporarily Disturbed Non-Agricultural Upland Areas)

As noted in section 2.0 above, the project is expected to result in temporary disturbance to approximately 279 acres of non-agricultural land, subject to verification as part of the preconstruction inventory. GHWF will reseed this area after construction. One seed mixture was developed for use in revegetating all temporarily disturbed upland habitats within the project area (Table 1). This seed mixture will be used, unless an alternative mixture is requested by a landowner, or agency biologist. The ODFW will need to approve the alternative mixture. To re-establish plant communities of most value to

wildlife, native species are included in the seed mixture, as well as certain non-native species that ODFW has determined to be beneficial to wildlife. Species were selected based on a variety of factors including tolerance to xeric conditions and seed availability.

4.2 Seed Planting Methods

Planting should be done in March--April (for disturbance that occurs during the winter and spring), and/or in October-November (for disturbance that occurs in the summer and fall). Disturbed, unseeded ground may require chemical or mechanical weed control in May or June, before weeds have a chance to go to seed.

In general, a weed-free seedbed should be prepared using conventional tillage equipment. Herbicide should be sprayed to control weedy and/or noxious species, following Oregon's buffer requirements for pesticide use (e.g., 300 feet from water sources). Summer fallowing may be required.

Areas to be seeded should be disked twice in early spring and spot-sprayed on the ground with an herbicide. This area should then be harrowed prior to seeding, ideally by the beginning of April. A conventional seed drill shall be used, except in areas where a rangeland drill is deemed more applicable, with a spacing less than 12 inches and at a depth of 1/8-1/4 inch. The prescribed seed mixture (Table 1) should be drilled at a rate of 12 pounds of pure live seed (PLS) per acre. If fallowing the area is to be used to increase soil moisture content, then the same procedure should be followed, but without seeding. If bare, disturbed soil is not seeded immediately, it will be protected from erosion. Seeding would then occur the following spring.

4.3 Restoration of Cropland

GHWF shall seed disturbed cropland areas with wheat or other cropseed. GHWF shall consult with the landowner and farm operator to determine species composition, seed and fertilizer application rates and application methods.

Cropland areas are successfully revegetated when the replanted areas achieve crop production comparable to adjacent non-disturbed cultivated areas. GHWF shall consult with the landowner or farmer to determine whether these areas have been successfully revegetated and shall report to the Department on the success of revegetation in these areas.

4.4 Revegetation Records

GHWF shall maintain a record of revegetation work for both cropland and wildlife habitat areas. In the record, GHWF shall include the date that construction activity was completed in the area to be restored, a description of the affected area (location, acres affected and pre-disturbances condition) the date that revegetation work began and a description of the work done within the affected area. GHWF shall update the revegetation records from

time to time as revegetation work occurs. GHWF shall provide copies of these records to the Department at the time it submits the annual report required under the site certificate.

4.5 Monitoring Procedures (Temporarily Disturbed Habitats)

The pre-construction inventory (section 3.6) will be repeated post-construction in the areas temporarily disturbed by construction activity to determine the success of the restoration. A qualified independent botanist or revegetation specialist hired by the certificate holder will examine a representative cross-section of plots within the revegetated areas. Following seeding, these visits will occur after the first growing season (year 1), then at year 3 and year 5. After year 5, an annual noxious weed assessment will be conducted on the site. The assessment will be made in May or June, when the largest number of weeds would be evident. If weeds are found, GHWF will make reasonable efforts to eradicate them. Care will be taken to survey areas in all the major habitat types and throughout the geographic extent of the revegetated areas. Each inventory will include:

- the ODFW habitat category for the area disturbed;
- the number of acres impacted;
- photos representing the habitat;
- an assessment of noxious weeds;
- an assessment of dominant plant species; and
- the percentage of vegetative ground cover

4.6 Success Criteria

In each monitoring report to the Department, the certificate holder shall provide an assessment of revegetation success for all previously-disturbed areas. A wildlife habitat area is successfully revegetated when its habitat quality is equal to, or better than, the habitat quality of the pre-construction ODFW habitat category of the disturbed area.

When the Department finds that the condition of a wildlife habitat area satisfies the criteria for revegetation success, the Department shall conclude that the certificate holder has met the restoration obligations for that area. If the Department finds that the landowner has converted a temporarily disturbed area to a use that is inconsistent with these success criteria, the Department shall conclude that the certificate holder has no further obligation to restore the area for wildlife habitat uses.

5.0 Habitat Improvement Procedures (Mitigation Area)

5.1 Introduction

To mitigate for permanent loss of habitat due to placement of facilities (e.g., turbines, access roads), BPAE has agreed to rehabilitate habitat on a like number of acres, of equivalent habitat quality, located in the vicinity of the project. The total amount of grassland and shrub-steppe land (including CRP) estimated to be permanently disturbed by the project, and for which mitigation is proposed for permanent impacts is 12.17 acres.

However, final impact areas will be calculated based on the pre-construction inventory described in Section 3.6. In addition, BPAE has also agreed to mitigate for indirect loss of habitat of an additional 10.45 acres of grassland/shrub-steppe habitat due to potential indirect impacts to grassland birds caused by operation of the wind project. Indirect impacts were calculated based on ODOE ratios used in previous site certificates (see attached spreadsheet). See Appendix A for a description of the habitat mitigation area. One parcel of land of similar size (approximately 22 acres) will be selected from the mitigation area for habitat enhancement based on a number of factors including:

- cost-effectiveness for quality implementation, management, and monitoring
- likelihood of successful enhancement benefiting wildlife
- willingness of landowner to participate in mitigation approach/activities

5.2 Pre-Management Inventory

- Prior to any management implementation (e.g., removal of grazing), GHWF will conduct a habitat inventory of the mitigation parcel, to be conducted by a qualified botanist or revegetation specialist. This person will examine a representative cross-section of plots within the mitigation parcel. These visits will occur yearly for the first five years, and then take place every five years for the life of the project. Care will be taken to survey areas in all the major habitat types and throughout the geographic extent of the revegetated parcel. Ten plots will be established within the mitigation site. At each plot or for the entire site, the investigator shall evaluate the following parameters:

- The ODFW habitat categories for the entire site,
- Photos representing the habitat at each plot,
- As assessment of dominant plant species at each plot (Year 1, Year 5)
- The percentage of vegetative ground cover at each plot (Year 1, Year 5)
- Record any wildfires within the mitigation area and remedial action taken on the entire site,
- An assessment of the presence of invasive weeds on the entire site
- Conduct avian surveys within mitigation area with one station set up at each plot, and
- Record observations of special status plants and animals within the mitigation area

5.3 Habitat Improvement Procedures

Once the habitat improvement parcel has been designated, the following measures will be implemented within its boundary. Ultimate responsibility for implementation and maintenance of these mitigation measures will be the responsibility of BPAE, although other parties may be subcontracted to carry out the procedures.

5.3.1 Fencing and Grazing

The parcel will be fenced prior to treatment to exclude cattle and other domestic ungulates. It is expected that regular maintenance will be required to keep the fences functioning. Gates will be installed at regular intervals along the perimeter.

GHWF shall prohibit grazing within the habitat mitigation area. Eliminating livestock grazing within the mitigation area will facilitate recovery of native bunchgrass and sagebrush in areas where past grazing has occurred, potentially resulting in better vegetative structure and complexity for a variety of wildlife.

5.3.2 Site Preparation and Planting Methods

Methods and seed mixtures used for revegetation of mitigation areas will follow those described above for temporarily disturbed areas. The mitigation site has been planted in grasses, therefore the site shall be planted and seeded using the same planting and seeding methods described for disturbed sites at sections 4.1 and 4.2 above. Ground cover canopy and height will be enhanced by the grazing exclusion.

In addition to the plantings described above, the certificate holder shall install a guzzler per ODFW specifications.

5.3.3 Maintenance

Because these improvements are mitigation for permanent habitat loss, it is necessary to maintain the fences and seedings over the life of the project (currently anticipated to be 30 years). This may include such maintenance activities as fence repair, periodic chemical or mechanical weed control, monitoring of improvement success, and re-seeding (in areas where native species establishment falls below the percentages specified in the success criteria described below).

5.3.4 Fire Control

GHWF shall implement a fire control plan for wildfire suppression within the mitigation area. GHWF shall provide a copy of the fire control plan to the Department before starting habitat enhancement actions. GHWF shall include in the plan appropriate fire prevention measures, methods to detect fires that occur and a protocol for fire response and suppression. GHWF shall maintain fire control for the life of the facility.

5.4. Post-Management Monitoring Procedures

- A qualified botanist or revegetation specialist will re-examine the mitigation parcel and compare the conditions of the site relative to the pre-management period (see section 5.2). A visit to the site will occur yearly to assess the presence of noxious weeds, and

record any wildfires within the mitigation area. If noxious weeds are found, GHWF will make reasonable efforts to eradicate them. In addition, focused monitoring will be conducted on a periodic basis to determine the success of the management measures to improve habitat. The investigator shall evaluate the following parameters:

- The ODFW habitat categories mapped and area calculated for the entire mitigation site (Year 1, 5, and every five years for life of project),
- Photos representing the habitat at each selected plot (Year 1, 5, and every five years for life of project),
- An assessment of dominant plant species at each plot (Year 1, 5, and every five years for life of project)
- The percentage of vegetative ground cover at each plot (Year 1, 5, and every five years for life of project)
- Record any wildfires within the mitigation area and remedial action taken (Annual for life of project),
- An assessment of the presence of invasive weeds on the site (Annual for life of project)
- Assess success of weed control program and recommend remedial actions if needed (Annual for life of project),
- Conduct avian surveys within mitigation area in spring (Year 5, 10, 15, 20), and
- Record observations of special status plants and animals within the mitigation area when on site

GHWF shall submit the monitoring reports with the annual report required by the site certificate.

5.5. Success Criteria

Mitigation of the permanent and temporal habitat impacts of the facility may be considered successful if the certificate holder protects and enhances sufficient habitat within the mitigation area to 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 habitat in Categories 2 and 5. The certificate holder must protect the quantity and quality of habitat within the mitigation area for the life of the facility.

The certificate holder shall determine the actual mitigation area requirements, subject to Department approval, before beginning construction of the GHWF. If the land selected for the mitigation area does not already contain sufficient habitat in each category to meet these requirements, then the certificate holder must demonstrate improvement of habitat quality sufficient to change lower-value habitat to a higher value (for example, to convert Category 3 habitat to Category 2). The certificate holder may demonstrate improvement of habitat quality based on evidence of indicators such as increased avian use by a diversity of species, more abundant seed production of desirable native bunchgrass, natural recruitment of sagebrush and successful weed control. If the certificate holder cannot demonstrate that the habitat mitigation area is trending toward the habitat quality

goals described above within three years, the certificate holder shall investigate the cause of the failure and report the results of the investigation to ODOE within six months after the end of the third year of operation. If the investigation shows that the site is unlikely to reach the required habitat quality, then the certificate holder shall propose an alternate site for Department approval in time for the next planting season. If the investigation shows that the cause of the failure was inadequate implementation of the habitat improvement procedures, then the certificate shall repeat those procedures and begin post implementation monitoring as before.

After the certificate holder has demonstrated that the habitat quantity goals have been achieved, the investigator shall verify, during subsequent monitoring visits, that the mitigation area continues to meet the ODFW “no net loss” and “net benefit” goals described above. The investigator shall recommend remedial action if the habitat quality within the mitigation area falls below the habitat quantity goals listed above. The Department may require other corrective measures and additional monitoring as necessary to ensure that the habitat quantity goals are achieved and maintained.

6.0 Amendment of the Plan

This Revegetation Plan may be amended from time to time by agreement of the certificate holder and the Council. Such amendments may be made without amendment of the site certificate. The Council authorizes the Office of Energy to agree to amendments to this plan. The Office of Energy shall notify the Council of all amendments, and the Council retains the authority to approve, reject or modify any amendment of this plan agreed to by the Office.

7.0 References

Macdonald, Gerald D., James M. Lamkin, and Roger H. Borine. 1999. Soil Survey of Sherman County, Oregon. Natural Resources Conservation Service, U.S. Department of Agriculture.

Table 1. Seed mixture and rate (Pure Live Seed, PLS, lbs/acre) to be used for revegetation of temporarily disturbed areas.

Common Name	Scientific Name	Pounds (PLS)/ Acre
Luna pubescent wheatgrass *	<i>Thinopyrum intermedium</i>	1
Sherman big bluegrass	<i>Poa ampla</i>	1
Magnar basin wildrye	<i>Leymus cinereus</i>	1
Whitmar beardless wheatgrass	<i>Pseudoroegneria spicata</i> ssp. <i>inermis</i>	2
Small burnett *	<i>Sanguisorba minor</i>	0.5
Alfalfa*	<i>Medicago sativa</i>	1.5
Sandberg bluegrass	<i>Poa secunda</i>	2
Idaho fescue	<i>Festuca idahoensis</i>	2
Basin big sagebrush	<i>Artemisia tridentata</i> ssp. <i>Tridentate</i>	1
TOTAL		12

* non-native species determined by ODFW to be beneficial to wildlife

APPENDIX A

HABITAT MITIGATION PROJECT

GOLDEN HILLS HABITAT MITIGATION PROJECT

OFF-SITE UPLAND GRASSLAND SHRUB-STEPPE ENHANCEMENT JOHN DAY RIVER BASIN

SITE DESCRIPTION AND PROPOSED MITIGATION MANAGEMENT

John Day River Rim – Upland Grassland Shrub-steppe Enhancement

Current Condition

The mitigation area is located “off-site” approximately 5 miles southeast of the Golden Hills Wind Farm layout (Figure 1). The enhancement area is within approximately 330 acres of fenced rangeland, with large tracts of CRP located immediately to the north and south, and BLM land to the east. The entire property has been extensively grazed historically and recently by livestock, yet harbors mature big sagebrush on the hillside slopes and interior drainage. The site is at the uppermost region of the Willow Springs Canyon tributary of the John Day River, approximately two miles up-drainage of the river (Figure 1). The area selected for enhancement is approximately 21.9 acres within a 40 acre deep-soil parcel (Figure 2). The 21.9 acre enhancement area may be reduced or increased based upon finalized calculations for habitat impacts from the Golden Hills Wind Facility layout. This mitigation parcel includes an upland 1 to 7 degree slope deep-soil area classified by USDA NRCS as 1B Anderly silt loam (1-30 inch typical depth profile; Figure 3). This soil type is considered prime farmland if irrigated. The area has historically been cultivated and seeded to provide better forage for cattle, although currently non-native undesirable cheatgrass dominates the area (see Appendix A photos). Horizontal and vertical vegetative structure, especially of native grasses and forbs, is largely depleted due to livestock grazing impacts (Appendix A). The enhancement area is adjacent to CRP to the west/southwest and BLM to the north, east, and southeast. Areas on all sides of the previously cultivated area have stands of blue bunch wheatgrass, with a variety of forbs including balsamroot, big sagebrush, rigid sagebrush, phlox species, pussy toes, lupine, daisy fleabane, yarrow, and green rabbitbrush (Appendix A).

Potential for Wildlife Habitat Enhancement

This site has the potential to provide more diverse grassland in greater quantity with greater horizontal and vertical structure. If enhanced, the parcel would provide better nesting habitat for grassland bird species, including loggerhead shrikes, and also provide higher quality forage and cover for big game. Limited big game forage such as sandberg bluegrass, bluebunch wheatgrass, and various forbs, would be enhanced with livestock exclusion providing better fall, winter, and early spring rangeland for big game. Summer habitat for ground-nesting birds would also be

enhanced. Enhancement would also likely provide better hunting grounds for raptors as well. Due to the elevational gradient and mixed soil depths, the site has the potential to provide several different quality ecotones.

Proposed Management for Enhancement

Eradication or control of non-desirable invasive/noxious species would be conducted by either using small controlled prescribed burns or spot spraying with herbicide. The area would be reclaimed for desirable grassland/shrub-steppe wildlife habitat using the revegetation methods described in section 4.0 of the Golden Hills Wind Farm revegetation plan for temporarily disturbed upland non-agriculture lands. The entire mitigation parcel would be fenced off and not grazed by domestic livestock. Given the selected mitigation parcel is currently heavily grazed and predominantly cheatgrass, there exists a high potential for successful reclamation of high quality wildlife habitat. In addition, a water catchment (“guzzler”) would be installed providing a water source for wildlife. Prior to any land management change, the ecological condition of the site should be assessed using Oregon protocols for rangeland inventory and evaluation (USDA 2004). This assessment would include photo documentation of the site with additional notes regarding wildlife habitat condition. Post-management site assessment, for example every 5 years, should also be agreed upon by ODFW allowing adaptive management needs.

Advantages

This site lacks public road access and is remote and infrequently disturbed by humans, used largely for hunting by landowner only. The site is approximately 5 miles from the proposed Golden Hills Wind Farm (Figure 1). The landowner has expressed willingness to enter into at least a 25 year conservation easement agreement for the site. The enhancement parcel has suitable soils for successful seeding and is surrounded by existing stands of grassland/shrub-steppe. The area is adjacent to a watershed with riparian habitat to the north, and cliff and riparian corridor habitat of the John Day River to the east; enhancing landscape-level wildlife forage, thermal and security cover, and water. This location presents the opportunity to enhance grassland/shrub-steppe quality and quantity that is limited in availability for wildlife. Successful enhancement would provide greater connectivity between adjacent large tracts of CRP and BLM lands, creating a larger overall mosaic of quality wildlife habitat.

Reference

USDA. 2004. National Range and Pasture Handbook: Amendment 2 600.0401a; Oregon Protocols for Rangeland and Pature / Hayland Inventory and Evaluation. United States Department of Agriculture, Natural Resources Conservation Service, Grazing Lands Technology Institute.

Figure 1. Miller property with mitigation area in relation to the Golden Hills Wind Farm location.

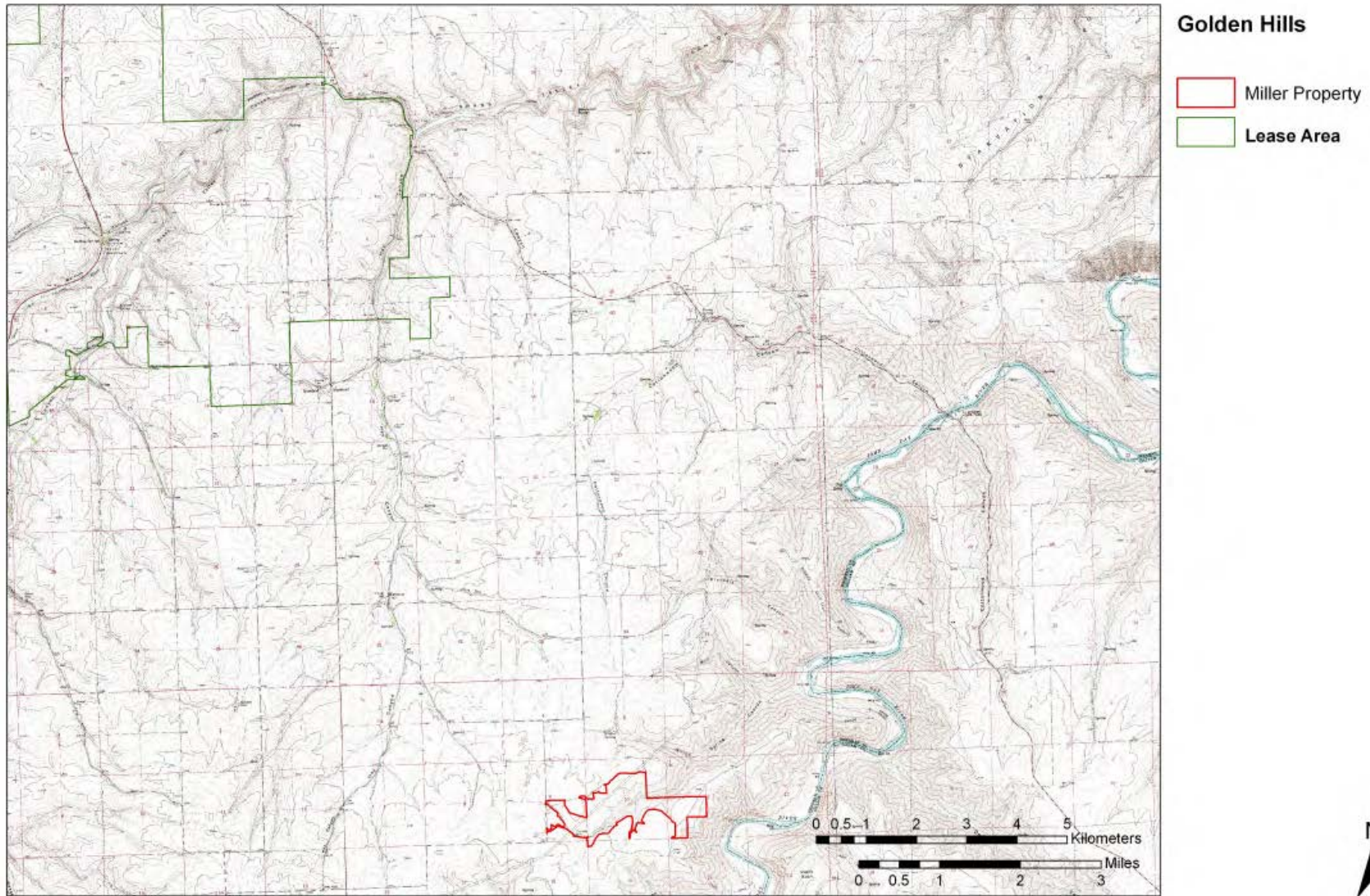


Figure 2. Upland mitigation enhancement parcel within the Miller property rangeland area.

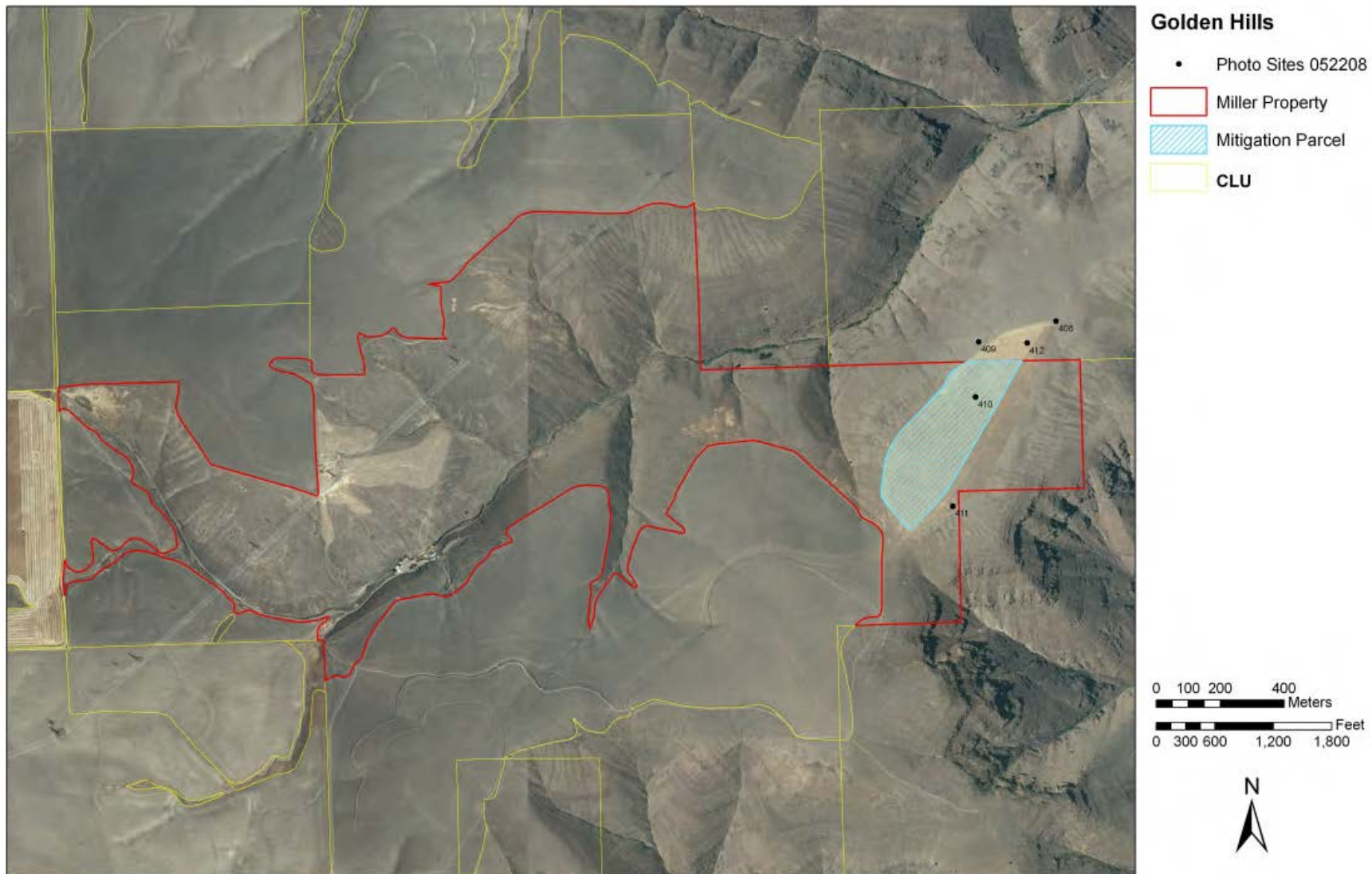
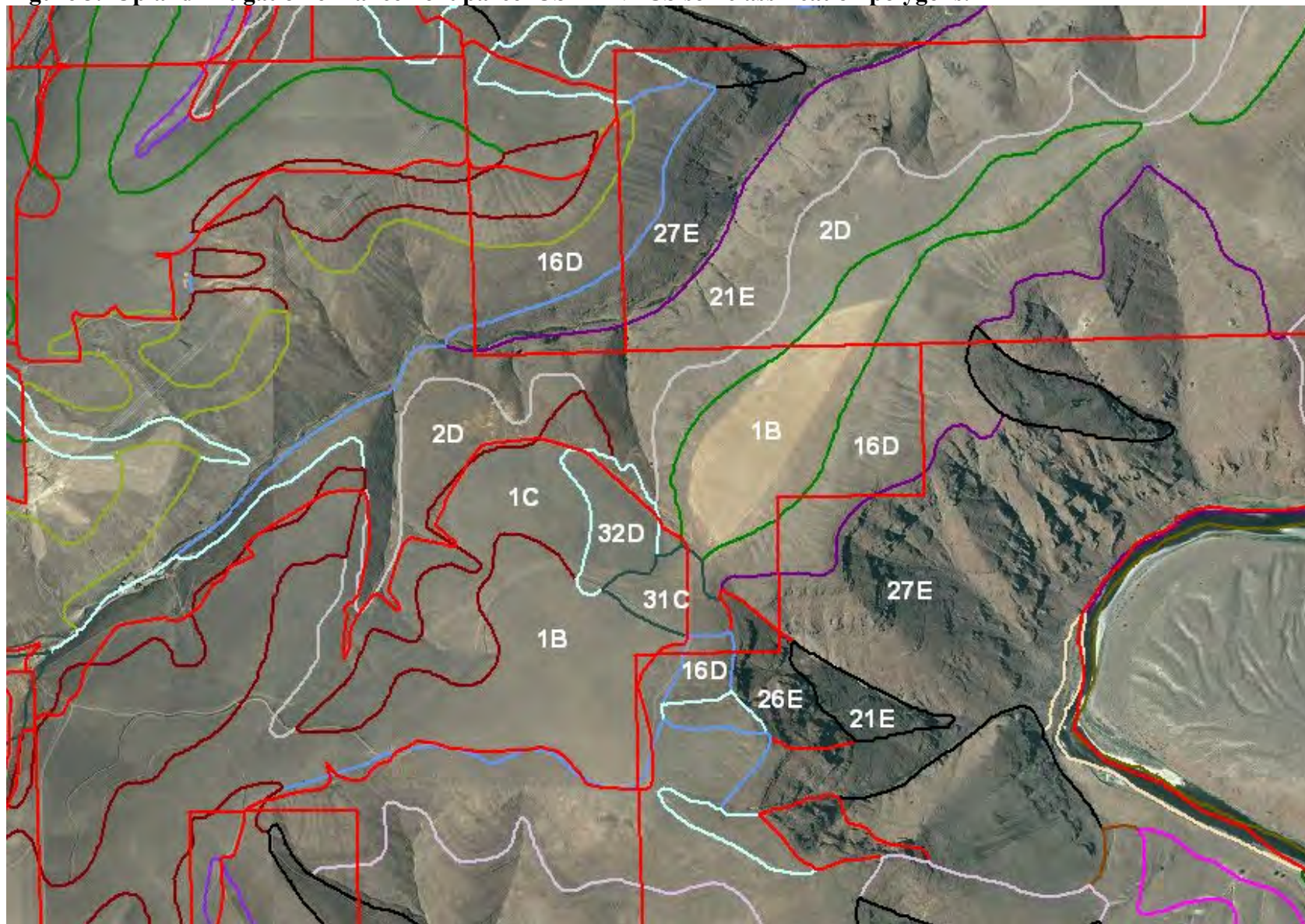


Figure 3. Upland mitigation enhancement parcel USDA NRCS soil classification polygons.



**Appendix A (Photo Sites 408-412). Mitigation Enhancement Parcel pictures of vegetation and grazing impacts.
PHOTO SITE 408 – ENHANCEMENT PARCEL WITH ADJACENT BUNCHGRASS**



PHOTO SITE 409 – ENHANCEMENT PARCEL WITH ADJACENT BUNCHGRASS (FOREGROUND)



PHOTO SITE 410 – ENHANCEMENT PARCEL



PHOTO SITE 411 – ENHANCEMENT PARCEL WITH ADJACENT BUNCHGRASS



PHOTO SITE 412 – ENHANCEMENT PARCEL



PHOTO – ENHANCEMENT PARCEL WITH CATTLE GRAZING MAY 22, 2008



PHOTO – ENHANCEMENT PARCEL WITH ADJACENT SAGEBRUSH/BUNCHGRASS (FOREGROUND) AND DRILL MAY 22, 2008

