BEFORE THE
ENERGY FACILITY SITING COUNCIL
OF THE STATE OF OREGON

In the Matter of the Request for Amendment #1 of the Site Certificate for Shepherds Flat North

FINAL ORDER ON AMENDMENT #1

Oregon Energy Facility Siting Council
March 12, 2010
SHEPHERDS FLAT NORTH:
FINAL ORDER ON AMENDMENT #1

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LIST OF ABBREVIATIONS
BPA Bonneville Power Administration
Certificate Holder North Hurlburt Wind LLC
Council Energy Facility Siting Council
Department Oregon Department of Energy
DEQ Oregon Department of Environmental Quality
DSL Oregon Department of State Lands
GCZO Gilliam County Zoning Ordinance
MW megawatt or megawatts
ODFW Oregon Department of Fish and Wildlife
SCADA Supervisory, Control and Data Acquisition (the control system for the energy facility)
SFC Shepherds Flat Central
SFN Shepherds Flat North
SFS Shepherds Flat South
SFWF Shepherds Flat Wind Farm
USFWS U.S. Fish and Wildlife Service
WMMP Wildlife Monitoring and Mitigation Plan
SHEPHERDS FLAT NORTH:
FINAL ORDER ON AMENDMENT #1

I. INTRODUCTION

The Oregon Energy Facility Siting Council (Council) issues this order in accordance
with ORS 469.405 and OAR 345-027-0070. This order addresses a request by the certificate
holder, North Hurlburt Wind LLC, for amendment of the site certificate for Shepherds Flat
North (SFN).

The Council issued a site certificate for SFN in September 2009. The site certificate
authorized construction and operation of up to 106 wind turbines and related facility
components. The facility would have a peak generating capacity of up to 318 megawatts. The
facility site is entirely on private lands located in Gilliam County south of Interstate Highway
84 and east of Arlington, Oregon, between State Highways 19 and 74. The certificate holder
has not begun construction of the facility.

The definitions in ORS 469.300 and OAR 345-001-0010 apply to terms used in this
order.

II. PROCEDURAL HISTORY AND AMENDMENT PROCESS

On November 3, 2009, the certificate holder submitted a “Request to Amend the Site
Certificate for Shepherds Flat North” (Request for Amendment #1). On November 12, 2009,
the certificate holder sent copies of the amendment request to a list of reviewing agencies
provided by the Oregon Department of Energy (Department) with a memorandum from the
Department requesting agency comments by December 11, 2009. On November 17, the
Department sent notice of the amendment request to all persons on the Council’s mailing list,
to the special list established for the facility and to an updated list of property owners supplied
by the certificate holder, requesting public comments by December 11, 2009.

By letter dated November 18, the Department notified the applicants that the proposed
order would be issued no later than January 15, 2010.

In response to the public and agency notices of the amendment request, the
Department received written comments from the following reviewing agencies and members
of the public:

- **Reviewing Agencies**
  - Sarah Kelly, Oregon Department of State Lands
  - Jerry Sauter, Oregon Water Resources Department
  - Rose Owens, Oregon Department of Fish and Wildlife
  - Todd Hesse, Oregon Department of Environmental Quality

- **Public Comments**
  - Johnson Meninick, Confederated Tribes and Bands of the Yakama Nation
  - Marisa Meyer, U.S. Fish and Wildlife Service
  - Leslie Nelson, The Nature Conservancy
The Department considered all of the comments in preparing the proposed order. A summary of all comments received and the Department’s responses are included in Attachment D, incorporated herein by this reference.

By letter dated January 13, 2010, the Department notified the certificate holder that additional time would be needed to prepare the proposed order and, in accordance with OAR 345-027-0070(4), explained the circumstances justifying the delay. The Department stated that the proposed order would be issued by February 5.

The Department analyzed the Request for Amendment #1 for compliance with all applicable Council standards. The Department’s recommended findings and conclusions were presented in the proposed order. The Department recommended that the Council approve the amendment request, subject to revisions of the site certificate discussed below at page 42.

After issuing the Proposed Order on February 4, 2010, the Department issued a public notice as required under OAR 345-027-0070(5). The Department mailed the notice to all persons on the Council’s general mailing list and to all persons on the SFN special list, property owner list and reviewing agency list. In addition, the Department posted the notice on the Department’s Internet website. The notice invited public comments and gave a deadline of March 8, 2010, for comments or contested case requests. The Department did not receive any comments by the deadline of March 8.

At a public meeting in Hood River, Oregon, on March 12, 2010, the Council considered the Department’s recommendations and voted to approve the amendment request.

III. DESCRIPTION OF THE PROPOSED AMENDMENT

The amendment request describes an expansion of the site boundary to accommodate an alternative route for a 230-kV transmission line to connect the facility to the regional transmission system operated by the Bonneville Power Administration (BPA). The alternative route would terminate at the same point of interconnection as described in the site certificate: a BPA substation currently under construction next to BPA’s Slatt Switching Station. The alternative route for the transmission line would run south from the SFN substation to the Shepherds Flat Central (SFC) substation and from there, west to the BPA substation. The proposed transmission line micrositing corridor would overlap the SFC site. The certificate holder proposes to construct the transmission line within either the previously-approved corridor or the proposed alternative corridor.

Companion amendment requests were submitted to the Council by South Hurlburt Wind LLC (for SFC) and by Horseshoe Bend Wind LLC for Shepherds Flat South (SFS). The 230-kV interconnection lines for SFN, SFC and SFS would be jointly owned by the certificate holders for the three facilities, and the power from the three facilities would be carried on the same lines. Contracts among the three certificate holders or with a third party would address transmission line maintenance. All three facilities would use the same transmission line corridor. Use of the alternative route would eliminate the need for the interconnection line to cross an existing high-voltage power line and a County road within the SFN site.

The amendment would add approximately 1,161 acres to the facility site. Approximately 1,152 acres of this expansion area lie within the previously-approved site.

1 The area to be added to the site is shown in the Request for Amendment #1, Section V, Map 1.
boundary of SFC. In addition, the amendment would include approximately 8.8 acres of new land to accommodate a segment of the alternate transmission line corridor between the previously-approved SFC site boundary and the BPA Slatt substation.

In addition, the certificate holder requests an exception to Condition 40(d). This condition requires a minimum setback distance of 110-percent of maximum blade tip height from facility wind turbines to “the nearest boundary of the certificate holder’s lease area.” The proposed exception would apply to a corral and storage area that is excluded from the certificate holder’s lease with the landowner. The excluded area (approximately 8.3 acres) and the surrounding land is owned by the same landowner, who is in agreement with the proposed exception to the setback requirement.

1. Amendment Procedure

Under OAR 345-027-0050, a site certificate amendment is needed because the certificate holder proposes to design, construct or operate SFN in a manner different from the description in the current site certificate. In particular, the certificate holder proposes to expand the site boundary, which could result in significant adverse impacts that the Council has not previously addressed and in the need to revise the conditions of the site certificate. In addition, the certificate holder proposes a change to Condition 40.

The Department and the Council must follow the procedures of OAR 345-027-0070 in reviewing the amendment request. In making a decision on this amendment request, the Council applies the “applicable substantive criteria” (defined in OAR 345-022-0030) that were in effect on the date the certificate holder submitted the request for amendment. The Council applies all other State statutes, administrative rules and local government ordinances that are in effect on the date the Council makes its decision. For an amendment that would change the site boundary, the Council must consider whether the facility complies with all Council standards with respect to the area added to the site by the amendment. In addition, the Council must consider whether the amendment of Condition 40 would affect any finding made by the Council in an earlier order.2 For any amendment, the Council must consider whether the amount of the bond or letter of credit required under OAR 345-022-0050 is adequate. We address compliance with these requirements in Sections IV and V.

2. The Certificate Holder’s Proposed Amendments to the Site Certificate

The proposed Amendment #1 would change the facility description and location to include the option of constructing the 230-kV interconnection line in an alternative corridor. The certificate holder described the proposed changes to the facility in Section III of the amendment request but did not propose specific site certificate language to address these changes. In Section IV of the amendment request, the certificate holder proposed specific language to modify Condition 40 to allow for the proposed exception to the lease boundary setback requirement for wind turbines.

The Department recommended that the Council approve the substance of the site certificate amendments proposed by the applicants and other modifications consistent with the

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2 Earlier orders that may be applicable include the Final Order on Amendment #1 for the Shepherds Flat Wind Farm (September 11, 2009) and the Final Order on the Application for the Shepherds Flat Wind Farm (July 25, 2008).
3. Description of the Facilities Authorized by Amendment #1

The Final Order on Amendment #1 for the Shepherds Flat Wind Farm (September 11, 2009) – hereinafter referred to as the Final Order on Amendment #1 (SFWF) – describes SFN as previously approved. If the Council approves Amendment #1, the facility description would be modified as described below.

Power Collection System

The 34.5-kV collector system would be installed entirely underground (eliminating up to 17.6 miles of aboveground collector line previously-approved). Up to 18 surface junction boxes would be installed to provide service access to the underground collector lines (a reduction from 30 previously-approved).

Substation and Interconnection

A facility substation would be constructed within the SFN site boundary. Power from the collector system would be stepped-up to 230 kV at the substation. An aboveground 230-kV transmission line would connect the SFN facility to the regional transmission grid through the BPA Slatt Switching Station located west of the main project area. The certificate holder would be authorized to use either the previously-approved interconnection line corridor or the alternative corridor. The previously-approved transmission line route (described in the amendment request as “Option A”) would require a transmission line up to 5.9 miles long and would run in a southwesterly direction from the SFN substation. The proposed alternative transmission line route (“Option B”) would run south from the SFN substation to the SFC substation (or to a junction point just north of the substation) and from there, west to the BPA substation. The proposed transmission line micrositing corridor would overlap the SFC site. Under Option B, the transmission line would not exceed 5.9 miles in length. The 230-kV transmission line would be supported on steel monopole structures.

Control System

The Supervisory, Control and Data Acquisition (SCADA) system would be installed entirely underground (eliminating up to 17.6 miles of aboveground SCADA lines).

Access Roads

Approximately 19 miles of new roads would be constructed to provide access to the turbine strings, based on the typical layout. The maximum length of new roads would be reduced to 20.3 miles (compared to a maximum length of 31 miles previously approved). The new roads and the improved existing roads would have a compacted base of native soil and a graveled surface to a depth of four to ten inches.

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3 Email from Carol Weisskopf, December 23, 2009.
4 Email from Carol Weisskopf, December 22, 2009.
5 Email from Patricia Pilz, November 3, 2009.
6 Table of typical and maximum components (email from Patricia Pilz, January 7, 2010).
7 Table of typical and maximum components (email from Patricia Pilz, January 7, 2010).
8 Email from Patricia Pilz, January 12, 2010.
Construction Disturbance Areas

During facility construction, there would be approximately 250 acres of temporary disturbance, based on the typical layout (an increase of approximately 91 acres compared to the previously-approved facility).\(^9\) The certificate holder notified the Department of the increase in temporary disturbance after discussions with the construction contractor regarding final design details, which occurred after the Request for Amendment #1 was submitted.\(^10\) The reasons for the increase are described herein at page 15. The Council approves this change in the estimate of construction disturbance, based on the new information.

SFN Site and Site Boundary

The Final Order on Amendment #1 (SFWF) describes the SFN site and site boundary as previously approved. If the Council approves Amendment #1, the area within the site boundary would increase by approximately 1,161 acres to a total of approximately 9,264 acres. The amendment request includes a map of the expanded site boundary, including the Option A and Option B transmission line routes.\(^11\)

IV. THE COUNCIL’S SITING STANDARDS: FINDINGS AND CONCLUSIONS

The Council must decide whether the amendment complies with the facility siting standards adopted by the Council. In addition, the Council must impose conditions for the protection of the public health and safety, conditions for the time of commencement and completion of construction and conditions to ensure compliance with the standards, statutes and rules addressed in the project order. ORS 469.401(2).

The Council is not authorized to determine compliance with regulatory programs that have been delegated to another state agency by the federal government. ORS 469.503(3). Nevertheless, the Council may consider these programs in the context of its own standards to ensure public health and safety, resource efficiency and protection of the environment.

The Council has no jurisdiction over design or operational issues that do not relate to siting, such as matters relating to employee health and safety, building code compliance, wage and hour or other labor regulations, or local government fees and charges. ORS 469.401(4).

In making its decision on an amendment of a site certificate, the Council applies the applicable State statutes, administrative rules and local government ordinances that are in effect on the date the Council makes its decision, except when applying the Land Use Standard. In making findings on the Land Use Standard, the Council applies the applicable substantive criteria in effect on the date the certificate holder submitted the request for amendment. OAR 345-027-0070(10).

1. General Standard of Review

OAR 345-022-0000

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

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\(^9\) Temporary project construction footprint, typical layout (email from Carol Weisskopf, December 21, 2009).

\(^10\) Email from Carol Weisskopf, December 21, 2009.

\(^11\) Request for Amendment #1, Section V, Map 2.
(a) The facility complies with the requirements of the Oregon Energy Facility Siting statutes, ORS 469.300 to ORS 469.570 and 469.590 to 469.619, and the standards adopted by the Council pursuant to ORS 469.501 or the overall public benefits of the facility outweigh the damage to the resources protected by the standards the facility does not meet as described in section (2):

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

* * *

We address the requirements of OAR 345-022-0000 in the findings of fact, reasoning, conditions, and conclusions of law discussed in the sections that follow. Upon consideration of all of the evidence in the record, we state our general conclusion regarding the amendment request in Section VII.

2. Standards about the Applicants

(a) Organizational Expertise

OAR 345-022-0010

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

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

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

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

Findings of Fact

In the Final Order on Amendment #1 (SFWF), the Council found that the certificate
holder, as a subsidiary of Caithness Energy, LLC, has the organizational expertise to
construct, operate and retire the proposed facility in compliance with Council standards and
conditions of the site certificate. The Council found that the certificate holder may
optionally obtain concrete, water and fuel from “service areas” that would be permitted,
constructed and operated by third-party contractors. In choosing that option, the certificate
holder would rely on third-party permits. The Council found that the third-party contractors
have a reasonable likelihood of getting the necessary permits and that the certificate holder
has a reasonable likelihood of entering into a contractual or other arrangement with these
contractors for access to concrete, water and fuel necessary for construction of SFN.

The proposed expansion of the site boundary would not affect the Council’s previous
findings. The Council finds that there have been no changes of circumstances or underlying
facts that would affect the Council’s previous findings under this standard.

Conclusions of Law

Based on the findings discussed above, the Council concludes that certificate holder
would meet the Council’s Organizational Expertise Standard if Amendment #1 were
approved.

(b) Retirement and Financial Assurance

OAR 345-022-0050

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

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

(2) The applicant has a reasonable likelihood of obtaining 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.

12 Final Order on Amendment #1 (SFWF), p. 15.
13 Final Order on Amendment #1 (SFWF), p. 15-16.
Findings of Fact

In the Final Order on Amendment #1 (SFWF), the Council found that the SFN site could be restored adequately to a useful, non-hazardous condition following permanent cessation of construction or operation of the facility. The Council found that the cost of site restoration would not exceed $7.802 million in 3rd Quarter 2009 dollars.

For this amendment request, the Department calculated a revised cost estimate for SFN following the estimating procedure outlined in its draft “Facility Retirement Cost Estimating Guide.” The estimate assumed a facility configuration that would result in the highest site restoration cost consistent with the maximum design flexibility requested by the certificate holder. The assumptions underlying the revised SFN cost estimate are as follows:

- 106 GE 2.5-MW turbines, each weighing 302 U.S. tons (including the weight of steel in the towers, nacelles, internal ladders and platforms).
- Turbine foundations containing 66 cubic yards of concrete above three feet below grade.
- 106 step-up transformers located within the turbine towers.
- 89 turbine turnouts.
- Two meteorological towers, one field workshop, one substation.
- No aboveground collector or SCADA lines.
- 5.9 miles of single-circuit 230-kV transmission line mounted on up to 46 steel monopoles.
- 18 junction boxes.
- 20.3 miles of access roads.
- Removal of facility components would disturb additional area around the component footprints. The estimated areas affected and the unit costs to

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14 Final Order Amendment #1(SFWF), p. 16.
15 Final Order Amendment #1(SFWF), p. 23.
16 Final Order on Amendment #1 (SFWF), pp. 17-18.
17 Wind turbine specifications, Request for Amendment #1 for the Shepherds Flat Wind Farm, Section III, p. 14.
18 Wind turbine specifications, Request for Amendment #1 for the Shepherds Flat Wind Farm, Section III, p. 14.
19 SFC email from Patricia Pilz, January 7, 2010. The unit cost for transformer removal is based on electrical disassembly costs alone.
20 Turbines at ends of roads have no turnout, based on permanent facilities footprint, typical layout (email from Carol Weisskopf, December 21, 2009).
21 Permanent facilities footprint (email from Carol Weisskopf, December 21, 2009).
22 Email from Carol Weisskopf, December 23, 2009.
23 Table of typical and maximum components (email from Patricia Pilz, January 7, 2010). The unit cost for the 230-kV transmission line has decreased from the cost shown in the Final Order on Amendment #1 (SFWF) due to a change from double-circuit to single-circuit and an increased distance between transmission poles (based on changes to footprint calculations, email from Carol Weisskopf, December 21, 2009).
24 Email from Carol Weisskopf, December 22, 2009.
25 Table of typical and maximum components (email from Patricia Pilz, January 7, 2010).
restore these areas, based on the severity of disturbance expected, are shown in the table below.26

Using these highest-cost assumptions, the Department estimated the site restoration cost for SFN as shown in Table 1.27

Table 1: Cost Estimate for Facility Site Restoration (1st Quarter 2010 dollars)

<table>
<thead>
<tr>
<th>Turbines</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disconnect electrical and ready for disassembly (per tower)</td>
<td>106</td>
<td>$1,061</td>
<td>$112,466</td>
</tr>
<tr>
<td>Remove turbine hubs and blades (per tower)</td>
<td>106</td>
<td>$4,106</td>
<td>$435,236</td>
</tr>
<tr>
<td>Remove turbine nacelles and towers (per net ton of steel)</td>
<td>32,012</td>
<td>$76.67</td>
<td>$2,454,360</td>
</tr>
<tr>
<td>Remove turbine foundations (per cubic yard of concrete)</td>
<td>6,996</td>
<td>$38.68</td>
<td>$270,605</td>
</tr>
<tr>
<td>Remove transformers (per transformer)</td>
<td>106</td>
<td>$2,407</td>
<td>$255,142</td>
</tr>
<tr>
<td>Restore turbine turnouts (per tower)</td>
<td>89</td>
<td>$97</td>
<td>$8,633</td>
</tr>
</tbody>
</table>

| Met Towers                                     |          |           |            |
| Dismantle and dispose of met towers (per tower) | 2        | $9,483    | $18,966    |

| Substations and Field Workshops                |          |           |            |
| Dismantle and dispose of substation            | 1        | $88,577   | $88,577    |
| Dismantle and dispose of field workshop        | 1        | $29,509   | $29,509    |

| Transmission Line                              |          |           |            |
| Remove 230-kV transmission line (per mile)     | 5.9      | $15,648   | $92,323    |
| Remove junction boxes & electrical to 4' below grade (each) | 18      | $1,416    | $25,488    |

| Access Roads                                   |          |           |            |
| Remove roads, grade and seed (per mile)        | 20.3     | $17,460   | $354,438   |

| Restore Additional Areas Disturbed by Facility Removal | | | |
| Around turbine pads (per acre)                  | 60.84    | $5,988    | $364,310   |
| Around turnarounds and turning radii (per acre) | 8.18     | $5,988    | $48,982    |
| Around met towers (per acre)                    | 0.22     | $5,988    | $1,317     |
| Around substation (per acre)                    | 1.83     | $5,988    | $10,958    |
| Around 230-kV power line poles and pulling disturbance (per acre) | 9.45    | $2,973    | $28,095    |
| Around access roads (per acre)                  | 150.52   | $5,988    | $901,314   |
| Around temporary transmission access and cross-country crane paths (per acre) | 39.87 | $2,973 | $118,534 |
| Laydown and storage areas (per acre)            | 5.0      | $2,973    | $14,865    |

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26 The unit cost for restoring areas around access roads assumes that grading and seeding would be needed. The unit cost for areas of temporary transmission line access roads and cross-country crane paths assumes that only seeding would be needed. Restoration area for 34.5-kV and 230-kV transmission line poles includes both the permanent footprint and temporary disturbance areas. Acreages of disturbance shown in the table are based on the table of temporary construction disturbance, worst-case layout (email from Carol Weisskopf, December 21, 2009), except for the acreages for transmission line support poles and cross-country crane paths, which are based on the table of typical and maximum components (email from Patricia Pilz, January 7, 2010).

27 The Facility Retirement Cost Estimating Guide computes the retirement and site restoration cost in terms of mid-2004 dollars. In the Final Order on Amendment #1 (SFWF), the Council adopted unit costs adjusted to reflect preliminary 3rd Quarter 2009 dollars. Table 1 shows unit costs in 3rd Quarter 2009 dollars and an adjustment of the subtotal to 1st Quarter 2010 dollars using a multiplier of 1.0051. The multiplier was generated by dividing the 1st Quarter 2010 Gross Domestic Product Implicit Price Deflator (GDP) of 110.4873 by the 3rd Quarter 2009 GDP of 109.9229.
The Council finds that the SFN site, taking into account mitigation and including the changes proposed by Amendment #1, can be restored adequately to a useful, non-hazardous condition following permanent cessation of construction or operation of the facility. The Council finds that $7,443 million (1st Quarter 2010 dollars) adjusted annually as described in revised Condition 30 is a conservative estimate of the cost to restore the SFN site to a useful, non-hazardous condition. The Department’s estimate is lower than the amount the Council previously found to be a reasonable cost to restore SFN to a useful, non-hazardous condition ($7,802 million in 3rd Quarter 2009 dollars). The decrease in the estimated site restoration cost is due primarily to the elimination of aboveground collector lines and associated temporary disturbance under the proposed amendment and the reduced miles of access roads.

The certificate holder provided a letter from JPMorgan Chase Bank, N.A. (Chase) stating that Chase “would be interested in issuing a letter of credit in the stated amount of up to $7,443,000 for the benefit of The Oregon Department of Energy by application of North Hurlburt Wind, LLC.” Chase stated that “there is a reasonable likelihood that Chase would be inclined to issue” the letter of credit (LC) if “the reimbursement obligations under the LC would be collateralized and documented in the same manner that Chase has previously issued letters of credit on behalf of other subsidiaries of Caithness Energy.” The letter does not constitute a firm commitment by Chase to issue the letter of credit, but it is evidence that the certificate holder could obtain the necessary letter of credit for SFN. The Council finds that the certificate holder has demonstrated a reasonable likelihood of obtaining a bond or letter of credit, satisfactory to the Council, in an amount adequate to restore the SFN site to a useful, non-hazardous condition.

Conclusions of Law

Based on the findings stated above, the Council concludes that the certificate holder would meet the Council’s Retirement and Financial Assurance Standard if Amendment #1 were approved.

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28 Email from Carol Weisskopf, January 29, 2010, with attached letter from JPMorgan Chase Bank.
3. Standards about the Impacts of Construction and Operation

(a) Land Use

OAR 345-022-0030

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

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

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

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

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

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

(3) As used in this rule, the “applicable substantive criteria” are criteria from the affected local government’s acknowledged comprehensive plan and land use ordinances that are required by the statewide planning goals and that are in effect on the date the applicant submits the application. If the special advisory group recommends applicable substantive criteria, as described under OAR 345-021-0050, the Council shall apply them. If the special advisory group does not recommend applicable substantive criteria, the Council shall decide either to make its own determination of the applicable substantive criteria and apply them or to evaluate the proposed facility against the statewide planning goals.

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

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

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

(c) The following standards are met:

(A) Reasons justify why the state policy embodied in the applicable goal
should not apply;

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

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

* * *

Findings of Fact

In acting on this amendment request, the Council applies the applicable substantive
criteria in effect on the date the certificate holder submitted the request for amendment. The
Planning Director of Gilliam County has confirmed that the County has not changed its
applicable substantive criteria for the evaluation of wind energy facilities between June 15,
2009 (the date the request for Amendment #1 for the SFWF was submitted) and the date the
certificate holder submitted the present amendment request for SFN (November 3, 2009).29
Therefore, the local land use criteria that the Council applied in the Final Order on
Amendment #1 (SFWF) are applicable to this amendment request.

In the Final Order on Amendment #1 (SFWF), the Council found that its previous
findings with respect to the former Shepherds Flat Wind Farm would apply to SFN.30 The
Council found that SFN would occupy more than 20 acres of land in Gilliam County and
therefore would not comply with Gilliam County Zoning Ordinance (GCZO) Section
4.020(D)(14).31 The Council’s previous land use findings are incorporated herein by this
reference. All land within the previously-approved site boundaries of SFN, SFC and SFS is
zoned Exclusive Farm Use (EFU).32

When a facility does not comply with all of the applicable substantive criteria in the
local jurisdiction, the Council must determine whether the facility otherwise complies with
the applicable statewide planning goals or if an exception to any applicable statewide
planning goal is justified. The Council analyzed SFN for compliance with the requirements of
ORS 215.283 and implementing regulations, specifically OAR 660-033-0120 and -0130, and
the analysis is incorporated herein by this reference.33

The Final Order on Amendment #1 (SFWF) includes the Department’s analysis of
compliance with OAR 660-033-0120 and OAR 660-033-0130, as amended January 2, 2009
(the new rules), as well as analysis under these regulations in effect before the January 2009

29 Email from Susie Anderson, Gilliam County Planning Director, December 2, 2009.
30 Final Order on Amendment #1 (SFWF), p. 25.
31 Final Order on Amendment #1 (SFWF), p. 27.
32 Final Order on the Application for the Shepherds Flat Wind Farm (July 25, 2008), p. 19.
33 Final Order on Amendment #1 (SFWF), pp. 28-33.
amendments (the old rules). As of the date the certificate holder submitted the present amendment request, Gilliam County had not had incorporated the January 2009 changes to OAR 660-033-0120 and OAR 660-033-0130 into the its zoning ordinances. Therefore, the land use analysis must address the old rules and the new rules.

Under the old rules, a power generation facility must not occupy more than 12 acres of high-value farmland or more than 20 acres of non-high-value farmland. The Council has found that there is no high-value farmland within the previously-approved SFN and SFC site boundaries. The entire area that would be added to the SFN by this amendment occupies non-high-value farmland within the previously-approved SFC site boundary, except for approximately 8.8 acres. In the amendment request, the certificate holder provided a map showing that the 8.8-acre portion of the proposed expansion area that is outside the current SFC site boundary is also non-high-value farmland.

The area that would be occupied by SFN components is shown in Table 2 below:

<table>
<thead>
<tr>
<th>Structure</th>
<th>Gilliam County (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal use</td>
<td></td>
</tr>
<tr>
<td>Turbine towers, including pad areas and turnouts</td>
<td>4.6</td>
</tr>
<tr>
<td>Meteorological towers</td>
<td>&lt; 0.1</td>
</tr>
<tr>
<td>Field workshop</td>
<td>1.6</td>
</tr>
<tr>
<td>34.5-kV collector line structures</td>
<td>0</td>
</tr>
<tr>
<td>Access roads</td>
<td>40.4</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>46.6</strong></td>
</tr>
<tr>
<td>Substation</td>
<td>3.2</td>
</tr>
<tr>
<td>230-kV transmission line structures</td>
<td>&lt; 0.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>49.8</strong></td>
</tr>
</tbody>
</table>

Because SFN would occupy more than 20 acres of non-high-value farmland, the facility does not comply with OAR 660-033-0130 (old rule). In the *Final Order on Amendment #1 (SFWF)*, the Council found that a Goal 3 exception was justified for SFN, SFC and SFS under ORS 469.504(2)(c) for the same reasons as discussed in the *Final Order on the Application for the Shepherds Flat Wind Farm* with respect to the SFWF. Those reasons are incorporated herein by this reference. The amendment would potentially affect only 8.8 acres

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34 The *Final Order on Amendment #1 (SFWF)* includes the definition of “high-value farmland” and “non-high-value farmland” at pages 27 and 29.
35 *Final Order on Amendment #1 (SFWF)*, pp. 29-30.
36 Request for Amendment #1, Section V, Map 5.
37 Based the typical layout and data shown on the table of “Facility Footprint by County” (email from Carol Weisskopf, December 23, 2009). An email of the same date confirmed that there would be no aboveground collector line in SFN (correcting the table). The proposed amendment would not change the area occupied by the 230-kV transmission line. Under either Option A or Option B, the footprint of the transmission line structures would not exceed 0.022 acres, based on a maximum transmission line length of 5.9 miles (email from Patricia Pilz, November 3, 2009).
38 The reasons justifying a Goal 3 exception are discussed at pages 55-58 of the *Final Order on the Application for the Shepherds Flat Wind Farm* (July 25, 2008).
outside of the area previously approved for SFN or SFC. The proposed amendment does not change the nature of the land use. The effect of selecting Option A or Option B for the interconnection route would be a difference in location of the transmission line. It would not significantly increase the land use impacts associated with the transmission line or change the nature of those impacts. The principal use and access roads in the typical layout as described in the amendment request would occupy 46.6 acres, compared to 49.2 acres in the typical layout as described in the Final Order on Amendment #1 (SFWF). Overall, the total component footprint of the layout as currently planned by the certificate holder would occupy approximately 50 acres, which is less than one-half of one percent of the land devoted to farm use within the SFN analysis area.\(^3\) The Council finds that a Goal 3 exception is justified for SFN, including the expansion requested in this amendment.

Under the new rules, OAR 660-033-0130(37)(a) requires a finding that “reasonable alternatives” to siting a wind power facility on high-value farmland soils have been considered. As discussed above, SFN, including the transmission corridor expansion proposed by this amendment, would not be located on high-value farmland soils. OAR 660-033-0130(37)(b) applies to “arable” land and requires specific findings regarding “unnecessary negative impacts on agricultural operations,” “unnecessary soil erosion or loss that could limit agricultural productivity,” “unnecessary soil compaction that reduces the productivity of soil for crop production” and “unabated introduction or spread of noxious weeds and other undesirable weeds species.” The Council previously found that there is no arable land within the SFN site.\(^4\) The certificate holder has confirmed that there is no arable land within the proposed expansion area.\(^1\)

For “nonarable land,” OAR 660-033-0130(37)(c) requires a finding that construction or maintenance activities would not result in the “unabated introduction or spread of noxious weeds and other undesirable weeds species.” This requirement may be met by submission of a county-approved weed control plan. Condition 38 requires the certificate holder to implement a weed control program that is consistent with the Gilliam County Weed Control Program. Condition 84 addresses construction impacts to agricultural land and requires the certificate holder to implement the Revegetation Plan, which includes weed control measures recommended by the Gilliam County Weed Control Program. The Council finds that, subject to the site certificate conditions, the construction and operation of SFN, including components within the expansion area proposed by Amendment #1, would not result in unabated introduction or spread of weeds.

The Council finds that SFN, with the changes requested in this amendment, would meet the approval criteria contained in the new rules for a wind power generating facility under OAR 660-033-0130.

Conclusions of Law

Based on the findings of fact, reasoning and conditions discussed above, the Council finds that SFN, with the changes proposed by Amendment #1, would comply with all applicable substantive criteria from Gilliam County except GCZO Section 4.020(D)(14).

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\(^{3}\) There are approximately 16,083 acres of land devoted to farm use within the SFN land use analysis area (table “Agricultural use by county,” email from Carol Weisskopf, December 23, 2009).

\(^{4}\) Final Order on Amendment #1 (SFWF), p. 33.

\(^{1}\) Email from Patricia Pilz, November 25, 2009.
Accordingly, the Council must proceed with the land use analysis under ORS 469.504(1)(b)(B).

If the old rules apply, the Council finds that SFN does not comply with OAR 660-033-0130(22) because it would occupy more than 20 acres of non-high-value farmland. Therefore, the facility does not comply with the applicable statewide planning goal (Goal 3). The Council finds that an exception to Goal 3 is justified under ORS 469.504(2)(c). If the new rules apply, the Council finds that SFN, with the changes proposed by Amendment #1, complies with OAR 660-033-0130(37) and otherwise complies with all applicable statewide planning goals.  

Based on these findings and the site certificate conditions described herein, the Council concludes that SFN would comply with the Land Use Standard if Amendment #1 were approved.

(b) Soil Protection

OAR 345-022-0022

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

Findings of Fact

In the Final Order on Amendment #1 (SFWF), the Council found that the design, construction and operation of SFN would not result in a significant adverse impact to soils. Those findings are incorporated herein by this reference. Amendment #1 would add approximately 1,160 acres to the site boundary, but approval of the amendment request would not result in any soil impacts of a kind that has not been addressed by the Council.

The certificate holder estimates a larger area of temporary disturbance could occur during construction. In the Final Order on Amendment #1 (SFWF), the Council found that approximately 159 acres of land could be temporarily disturbed during construction of SFN, based on the typical layout. The certificate holder now estimates that temporary disturbance could affect approximately 250 acres. The increase is due to the certificate holder’s ongoing discussions with the construction contractor, the final selection of a turbine type for the project and on-site geotechnical investigations. The certificate holder listed the following considerations affecting the estimate of temporary disturbance:

- The number of foundations requiring compaction is based on core samples taken at the turbine sites.

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42 If the new rules apply and SFN were found not to comply with OAR 660-033-0130(37), then an exception to Goal 3 would be justified for the reasons discussed herein.
43 Final Order on Amendment #1 (SFWF), p. 34.
44 Final Order on Amendment #1 (SFWF), Table 7, p. 45.
45 Temporary project construction footprint, typical layout (email from Carol Weisskopf, December 21, 2009).
46 Email from Carol Weisskopf, December 21, 2009.
• The temporary disturbance at non-compacted sites has increased due to the necessity of assembling part of the hydraulic system on site, and then inserting it into the bottom tower sections. This requires the nacelle and tower sections to be present before erection, and just-in-time component delivery is precluded.

• The disturbance area around each 230-kV transmission line support pole has increased to allow assembly from both sides of the structure while it is lying on the ground.

• A temporary access roadway, 10 feet wide in the typical case and 16 feet wide for the worst case, runs along the portions of the transmission line that are not adjacent to project or ranch roads.

• The increase in trenching disturbance is the consequence of elimination of all overhead collector lines. Where possible, trenches have been located on ranch roads.

• The disturbance width has been reduced for roads used for access but not for crane travel. The difference in widths for the typical and worst case analysis is the amount allowed for stockpiling of topsoil.

• Crane paths are required because the total length of project roads (upon which the crane would otherwise be traveling) has been reduced, and because Rhea Road is not wide enough to accommodate the crane safely. Where possible, crane paths have been located on ranch roads or above trenching disturbance, reducing the additional footprint.

• The 230-kV line will be passing beneath a PGE transmission line that lies within a 700-foot easement. Extra equipment and personnel will be necessary for transmission pole erection within the easement.

Aside from the increased area of potential construction disturbance, the changes that would be allowed if Amendment #1 were approved would not substantially change the facts on which the Council relied in its previous findings regarding impacts to soils. The Council finds that no changes to the site certificate conditions related to soil protection are needed (Conditions 11, 36, 73, 75, 76 and 84). The Council finds that the design, construction and operation of SFN, with the changes proposed by Amendment #1, would not likely result in significant adverse impact to soils, taking into account the mitigation required by the site certificate conditions.

Conclusions of Law

The Council concludes that SFN would comply with the Council’s Soil Protection Standard if Amendment #1 were approved.

(c) Protected Areas

OAR 345-022-0040

(1) Except as provided in sections (2) and (3), the Council shall not issue a site certificate for a proposed facility located in the areas listed below. To issue a site certificate for a proposed facility located outside the areas listed below, the Council must find that, taking into account mitigation, the design, construction and operation of the facility are not likely to result in significant adverse impact to the areas listed below. References in this rule to protected areas designated under federal or state statutes or regulations are to the designations in effect as of May 11, 2007:
(a) National parks, including but not limited to Crater Lake National Park and Fort Clatsop National Memorial;

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

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

(d) National and state wildlife refuges, including but not limited to Ankeny, Bandon Marsh, Basket Slough, Bear Valley, Cape Meares, Cold Springs, Deer Flat, Hart Mountain, Julia Butler Hansen, Klamath Forest, Lewis and Clark, Lower Klamath, Malheur, McKay Creek, Oregon Islands, Sheldon, Three Arch Rocks, Umatilla, Upper Klamath, and William L. Finley;

(e) National coordination areas, including but not limited to Government Island, Ochoco and Summer Lake;

(f) National and state fish hatcheries, including but not limited to Eagle Creek and Warm Springs;

(g) National recreation and scenic areas, including but not limited to Oregon Dunes National Recreation Area, Hell’s Canyon National Recreation Area, and the Oregon Cascades Recreation Area, and Columbia River Gorge National Scenic Area;

(h) State parks and waysides as listed by the Oregon Department of Parks and Recreation and the Willamette River Greenway;

(i) State natural heritage areas listed in the Oregon Register of Natural Heritage Areas pursuant to ORS 273.581;

(j) State estuarine sanctuaries, including but not limited to South Slough Estuarine Sanctuary, OAR Chapter 142;

(k) Scenic waterways designated pursuant to ORS 390.826, wild or scenic rivers designated pursuant to 16 U.S.C. 1271 et seq., and those waterways and rivers listed as potentials for designation;

(L) Experimental areas established by the Rangeland Resources Program, College of Agriculture, Oregon State University: the Prineville site, the Burns (Squaw Butte) site, the Starkey site and the Union site;

(m) Agricultural experimental stations established by the College of Agriculture, Oregon State University, including but not limited to:

Coastal Oregon Marine Experiment Station, Astoria
Mid-Columbia Agriculture Research and Extension Center, Hood River
Agriculture Research and Extension Center, Hermiston
Columbia Basin Agriculture Research Center, Pendleton
Columbia Basin Agriculture Research Center, Moro
North Willamette Research and Extension Center, Aurora
East Oregon Agriculture Research Center, Union
Malheur Experiment Station, Ontario
Eastern Oregon Agriculture Research Center, Burns
Eastern Oregon Agriculture Research Center, Squaw Butte
Central Oregon Experiment Station, Madras
Central Oregon Experiment Station, Powell Butte
Central Oregon Experiment Station, Redmond
Central Station, Corvallis
Coastal Oregon Marine Experiment Station, Newport
Southern Oregon Experiment Station, Medford
Klamath Experiment Station, Klamath Falls;

(n) Research forests established by the College of Forestry, Oregon State University, including but not limited to McDonald Forest, Paul M. Dunn Forest, the Blodgett Tract in Columbia County, the Spaulding Tract in the Mary's Peak area and the Marchel Tract;

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

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

* * *

Findings of Fact

In the Final Order on Amendment #1 (SFWF), the Council found that the design, construction and operation of SFN were not likely to result in significant adverse impact to protected areas. Those findings are incorporated herein by this reference. The changes that would be allowed if Amendment #1 were approved would not substantially change the facts on which the Council relied in its previous findings regarding adverse impacts to protected areas. Nearly all of the area proposed to be added to the site lies within the site boundary of SFC, which the Council has previously determined to be in compliance with the Protected Areas Standard. The Council finds that SFN, including the area proposed to be added to the site by Amendment #1, is not located in any protected area listed in OAR 345-022-0040 and that the design, construction and operation of SFN are not likely to result in a significant adverse impact to any protected area.

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47 Final Order on Amendment #1 (SFWF), p. 37.
Conclusions of Law

For the reasons discussed above, the Council concludes that SFN would comply with the Council’s Protected Areas Standard if Amendment #1 were approved.

(d) Scenic Resources

OAR 345-022-0080

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

Findings of Fact

In the Final Order on Amendment #1 (SFWF), the Council found that the design, construction and operation of SFN, taking mitigation into account and subject to the site certificate conditions, were not likely to result in significant adverse impact to scenic resources and values identified as significant or important in applicable federal land management plans or in local land use plans in the analysis area.\(^\text{48}\) Those findings are incorporated herein by this reference.

The changes that would be allowed if Amendment #1 were approved would not substantially change the facts on which the Council relied in its previous findings regarding visual impacts on identified scenic resources or values. Approval of the amendment would not change the number of wind turbines or the authorized maximum blade tip height of wind turbines at the facility. The amendment would not increase the maximum allowed length of the 230-kV interconnection line, although Option B would allow construction of the line along a different route than under Option A. The choice of transmission line route would not significantly affect scenic resources. The Council finds that the design, construction and operation of SFN are not likely to result in significant adverse impacts to scenic resources and values identified as significant or important in applicable federal land management plans or in local land use plans in the analysis area.

Conclusions of Law

For the reasons discussed above, the Council concludes that SFN would comply with the Council’s Scenic Resources Standard if Amendment #1 were approved.

(e) Recreation

OAR 345-022-0100

(1) Except for facilities described in section (2), to issue a site certificate, the Council must find that the design, construction and operation of a facility, taking into account mitigation, are not likely to result in a significant adverse impact to important recreational opportunities in the analysis area as described in the

\(^{48}\) Final Order on Amendment #1 (SFWF), pp. 37-38.
The Council shall consider the following factors in judging the importance of a recreational opportunity:

(a) Any special designation or management of the location;
(b) The degree of demand;
(c) Outstanding or unusual qualities;
(d) Availability or rareness;
(e) Irreplaceability or irretrievability of the opportunity.

Findings of Fact

In the Final Order on Amendment #1 (SFWF), the Council found that none of the recreational opportunities in the analysis area met the criteria to be considered “important” under the factors listed in the standard. Therefore, the Council found that the design, construction and operation of SFN were not likely to result in significant adverse impacts to recreational opportunities in the analysis area. Those findings are incorporated herein by this reference.

The expansion of the site to allow for an optional transmission line route as requested in Amendment #1 would not affect any recreational opportunities that were not previously addressed by the Council. Approval of Amendment #1 would not change the facts or circumstances upon which the Council relied in making findings regarding impacts on recreational opportunities.

Conclusions of Law

For the reasons discussed above, the Council concludes that SFN would comply with the Council’s Recreation Standard if Amendment #1 were approved.

(f) Public Health and Safety Standards for Wind Energy Facilities

OAR 345-024-0010

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

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

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

Findings of Fact

In the Final Order on Amendment #1 (SFWF), the Council found that the certificate holder could design, construct and operate SFN to exclude members of the public from close proximity to the turbine blades and electrical equipment, to preclude structural failure of the

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49 Final Order on Amendment #1 (SFWF), p. 38.
tower or blades that could endanger public safety and to have adequate safety devices and
testing procedures.\textsuperscript{50} Those findings are incorporated herein by this reference. To ensure
public safety, the Council included Conditions 12, 26, 40, 47, 59, 60, 61, 62, 63, 64 and 93 in
the site certificate.

In the Request for Amendment #1, the applicants do not propose any significant
change in the design or size of facility components allowed under the site certificate. The
certificate holder would have the option to locate the 230-kV transmission line in the alternate
corridor described herein, but use of the alternate corridor would not result in any new or
increased risk of harm to public safety. Approval of Amendment #1 would not change the
facts or circumstances upon which the Council relied in making findings regarding public
health and safety at the SFN site.

In Amendment #1, the certificate holder is requesting a modification of Condition 40,
which specifies setback distances for facility components. Condition 40(d) requires a
minimum setback distance of 110-percent of maximum blade tip height from facility wind
turbines to “the nearest boundary of the certificate holder’s lease area.” This requirement was
intended to protect the property of neighboring landowners. The certificate holder requests an
exception that would apply to a relatively small area (approximately 8.3 acres) that has been
excluded from the certificate holder’s lease. The excluded area and the surrounding land is
owned by the same landowner, who is in agreement with the proposed exception to the
setback requirement.\textsuperscript{51} The certificate holder has identified the excluded area as “Area A” on
a map in the Request for Amendment #1.\textsuperscript{52} The excluded area is currently used for a corral
and storage area. Approval of the setback exception would not have a significant adverse
effect on public safety or on the property of a neighboring landowner. The Council approves
the modification of Condition 40 as discussed in Revision 8 below at page 45.

Conclusions of Law

For the reasons discussed above, the Council concludes that SFN would comply with
the Council’s Public Health and Safety Standards for Wind Energy Facilities if Amendment
#1 were approved.

(g) Siting Standards for Wind Energy Facilities

\textbf{OAR 345-024-0015}

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

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

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

\textsuperscript{50} Final Order on Amendment #1 (SFWF), pp. 39-40.
\textsuperscript{51} Request for Amendment #1, Section I, p. 2.
\textsuperscript{52} Request for Amendment #1, Section V, Map 6.
(3) Connecting the facility to existing substations, or if new substations are needed, minimizing the number of new substations.

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

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

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

Findings of Fact

In the Final Order on Amendment #1 (SFWF), the Council found that the certificate holder could design and construct SFN to reduce visual impact, to restrict public access and to reduce cumulative adverse environmental impacts in the vicinity to the extent practicable in accordance with the requirements of OAR 345-024-0015. Those findings are incorporated herein by this reference. To address cumulative impacts, the Council included Conditions 58, 63, 86, 90, 91, 94 and 95 in the site certificate. The proposed amendment would expand the SFN site to allow for an alternative transmission line route but would not otherwise change the cumulative effects of the components authorized for construction at the facility. Approval of the amendment would not change the total number of wind turbines or the authorized blade tip height of wind turbines or change the maximum allowed length of the 230-kV interconnection line.

Conclusions of Law

Based on these findings and subject to the conditions of the site certificate, the Council concludes that SFN would comply with the Council’s Siting Standards for Wind Energy Facilities if Amendment #1 were approved.

(h) Siting Standards for Transmission Lines

OAR 345-024-0090

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

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

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

Findings of Fact

In the Final Order on Amendment #1 (SFWF), the Council found that the certificate holder could design, construct and operate the proposed transmission line components of the

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53 Final Order on Amendment #1 (SFWF), pp. 40-41.
SFN in accordance with the standards described in OAR 345-024-0090.54 Those findings are incorporated herein by this reference. The proposed amendment would allow a different route for the 230-kV interconnection line, but under either Option A or Option B, the line would be located on private property with limited public access. The Council has found that the aboveground 230-kV transmission line would produce an electric field well below the 9 kV per meter standard required by OAR 345-024-0090(1).55 Condition 81 requires the certificate holder to design all transmission lines to comply with the electric field standard. Condition 80 requires the certificate holder to ground fencing to reduce the potential risk of electric shock from induced currents. Condition 17 requires the certificate holder to design and construct transmission lines in accordance with the requirements of the National Electrical Safety Code and to implement a program that provides reasonable assurance that all fences, gates, cattle guards, trailers, or other objects or structures of a permanent nature that could become inadvertently charged are properly grounded. Approval of Amendment #1 would not change the facts or circumstances upon which the Council relied in making findings regarding compliance with the standards in OAR 345-024-0090.

Conclusions of Law

For the reasons discussed above, the Council concludes that SFN would comply with the Council’s Siting Standards for Transmission Lines if Amendment #1 were approved.

4. Standards to Protect Wildife

(a) Threatened and Endangered Species

OAR 345-022-0070
To issue a site certificate, the Council, after consultation with appropriate state agencies, must find that:

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

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

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

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

Findings of Fact

In the Final Order on Amendment #1 (SFWF), the Council found that the design, construction and operation of SFN would not have the potential to significantly reduce the

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54 Final Order on Amendment #1 (SFWF), p. 42.
55 Final Order on the Application for the Shepherds Flat Wind Farm (July 25, 2008), pp. 86-87.
The likelihood of the survival or recovery of any threatened or endangered plant or wildlife species listed under Oregon law. Those findings are incorporated herein by this reference. The proposed amendment would not significantly change wind facility components that would be authorized for construction and operation at SFN. The amendment would enlarge the facility site by approximately 1,161 acres. All but 8.8 acres of the proposed expansion area lie within the previously-approved SFC site boundary.

In the *Final Order on the Application for the Shepherds Flat Wind Farm*, the Council found that one State-listed threatened plant species, Laurent’s milk-vetch, has the potential to occur within the five-mile analysis area around the former SFWF site boundary. The species was not observed within the SFWF site boundary and was considered not likely to occur within the site boundary because its range was believed to lie at elevations above 1,970 feet. The species was recently observed, however, at elevations between 800 to 860 feet. Suitable habitat for Laurent’s milk-vetch may exist in areas that have not been surveyed. The certificate holder has agreed to survey the new areas (outside the previously-approved site boundaries for SFN and SFC) and to avoid impacts to endangered species. In Revision 12 discussed below at page 47, the Council modifies Condition 86 to require a pre-construction survey for threatened or endangered plant species in the new areas outside previously-approved site boundaries and to require exclusion fencing during construction if any threatened or endangered species are found.

In the *Final Order on the Application for the Shepherds Flat Wind Farm*, the Council found that that two State-listed endangered wildlife species (gray wolf and Washington ground squirrel) and two State-listed threatened species (bald eagle and chinook salmon) have the potential to occur within the five-mile analysis area around the former SFWF site boundary. Gray wolves may have historically been present in Gilliam or Morrow Counties, but there have been no recent observations of the species within the analysis area. There is evidence of natural dispersion of the species into the state in areas close to the border with Idaho.
Bald eagles forage and roost along the Columbia River. Eagles are unlikely to forage in the upland areas within the site boundary due to the lack of suitable perch trees. Conditions 63, 90 and 91 include measures to mitigate the risk of injury to bald eagles.

The Council has previously found that there is no suitable habitat for chinook salmon within the former SFWF site boundary, which includes the previously-approved SFN, SFC and SFS sites. The new lands proposed to be added to the SFN site that lie outside the previously-approved site boundaries of SFN and SFC do not contain habitat suitable for the species.

Surveys for Washington ground squirrels (WGS) were conducted in 2007 in suitable soils within the SFN site plus a 1,000-foot buffer. No signs of WGS were found in this area. The certificate holder has not searched a segment of the proposed Option B transmission corridor that lies outside the previously-approved SFC site boundary and beyond the 1,000-foot buffer that was part of the 2007 WGS survey area. This transmission corridor segment lies within the County-approved boundary of the neighboring Pebble Springs Wind Energy Facility.

ODFW has requested pre-construction surveys for threatened, endangered or sensitive wildlife species, including WGS, in areas having suitable habitat on lands that the Council has not previously approved for a site certificate. The certificate holder has agreed to conduct pre-construction surveys for WGS using a protocol approved by ODFW and to avoid impacts to the area within 1,000 feet of any Category 1 WGS habitat that is found within the area during the period in which the squirrels are active. In Revision 12 discussed below at page 47, the Council modifies Condition 86 to require pre-construction surveys for State-listed threatened, endangered or sensitive wildlife species in these new areas within 1,000 feet of any area potentially disturbed by facility construction, including WGS surveys, and to require avoidance of the area within 1,000 feet of any Category 1 WGS habitat during the period that WGS are active.

In Revision 13, the Council modifies Condition 92 to include a lower speed limit near any Category 1 or Category 2 Washington ground squirrel habitat identified during the pre-construction survey.

For the reasons discussed above, the design, construction and operation of the SFN are unlikely to cause a significant reduction in the likelihood of survival or recovery of any State-listed threatened or endangered species, taking into account the mitigation required by the site certificate conditions.

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62 Final Order on the Application for the Shepherds Flat Wind Farm (July 25, 2008), p. 95. This finding applied as well to the federally-listed threatened steelhead and endangered sockeye salmon.
63 Request for Amendment #1, Section V, Maps 2 and 3.
64 Final Order on the Application for the Shepherds Flat Wind Farm (July 25, 2008), p. 93. The certificate holder has provided a map showing the areas searched within and near the SFN site (email from Patricia Pilz, December 16, 2009).
65 Weisskopf et al., Shepherds Flat Washington Ground Squirrel and Burrowing Owl Surveys, May 27, 2007 (Application Supplement for the Shepherds Flat Wind Farm, Exhibit P, Attachment P-5a).
66 Email from Steve Cherry, ODFW, December 17, 2009.
Conclusions of Law

For the reasons discussed above and subject to the site certificate conditions described herein, the Council concludes that SFN would comply with the Council’s Threatened and Endangered Species Standard if Amendment #1 were approved.

(b) Fish and Wildlife Habitat

OAR 345-022-0060

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

Findings of Fact

In the Final Order on Amendment #1 (SFWF), the Council found that the design, construction and operation of SFN would be consistent with the ODFW habitat mitigation goals and standards. The Council made findings regarding the characteristics of the habitat types within the SFN site boundary. The Council made findings regarding potential habitat impacts and mitigation requirements. Those findings are incorporated herein by this reference.

The proposed amendment would enlarge the area within the SFN site boundary by approximately 1,161 acres. All but 8.8 acres of the proposed expansion area lie within the previously-approved SFC site boundary. The certificate holder estimated the habitat impacts of the SFN facility, including the expansion area, based on a “typical project layout” as shown in Table 3.

Table 3: Typical Layout Habitat Impacts

<table>
<thead>
<tr>
<th>Habitat Type</th>
<th>Habitat Subtype</th>
<th>Acres Within the Site Boundary</th>
<th>Areas of temporary impact (acres)</th>
<th>Areas of permanent impact (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raptor nests</td>
<td>RN</td>
<td>0.16</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>0.16</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Category 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raptor nests</td>
<td>RN</td>
<td>0.28</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Shrub-steppe – sage</td>
<td>SS-S</td>
<td>33.57</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>33.85</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

67 Final Order on Amendment #1 (SFWF), p. 54.
68 Final Order on Amendment #1 (SFWF), pp. 44-46.
69 Final Order on Amendment #1 (SFWF), pp. 51-54.
70 Based on the certificate holder’s habitat assessment table (email from Carol Weisskopf, December 22, 2009).
For micrositing purposes, the certificate holder estimated the maximum habitat impacts of SFN on high-value wildlife habitat based on a “worst-case layout.” The estimated maximum habitat impacts of the facility, including the proposed expansion areas, are shown in Table 4.

Table 4: Maximum Habitat Impacts

<table>
<thead>
<tr>
<th>Habitat Type</th>
<th>Habitat Subtype</th>
<th>Areas of temporary impact (acres)</th>
<th>Areas of permanent impact (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raptor nests</td>
<td>RN</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Category 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raptor nests</td>
<td>RN</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Shrub-steppe -- sage</td>
<td>SS-S</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Category 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curlew</td>
<td>CUR</td>
<td>198.28</td>
<td>33.28</td>
</tr>
<tr>
<td>Grassland</td>
<td>GL</td>
<td>0.09</td>
<td>0.09</td>
</tr>
<tr>
<td>Shrub-steppe -- rabbitbrush</td>
<td>SS-R</td>
<td>48.75</td>
<td>14.52</td>
</tr>
<tr>
<td>Shrub-steppe -- sage</td>
<td>SS-S</td>
<td>5.62</td>
<td>1.59</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>198.39</td>
<td>33.28</td>
</tr>
</tbody>
</table>

71 Based on the certificate holder’s habitat assessment table (email from Carol Weisskopf, December 22, 2009). The turbine locations used in the estimate are not expected to be changed in the final design. Accordingly, the differences between the typical and maximum habitat impacts are the use of Option A or Option B for the transmission line and in the disturbance width of roads (email from Carol Weisskopf, December 21, 2009)
The maximum habitat impacts analysis allows for facility micrositing while ensuring that the certificate holder can mitigate for the habitat impacts of any micrositing configuration. The maximum habitat impacts analysis shapes the upper bounds of the quantity and quality of mitigation acres that would be required. Under Condition 29, the certificate holder must provide to the Department a description of the final design configuration and an assessment of the affected habitats before beginning construction. The actual habitat impacts and the size of the mitigation area required under Condition 85 and the incorporated Habitat Mitigation Plan are determined according to the final configuration of facility components. Condition 29 requires consultation with ODFW at the time of the pre-construction habitat assessment and allows the Department to employ a qualified contractor to confirm the habitat assessment by on-site inspection. ODFW policy guidance for assigning habitat categories that was in place when the SFWF site certificate was issued (July 25, 2008) will be applied to determine habitat categories under Condition 29 on lands lying within the original SFWF site boundary.  

Compared with the previously-approved site, the current (typical) project layout would reduce the permanent footprint by approximately 2.5 acres. Temporary disturbance would increase by approximately 91 acres for the reasons discussed above at page 15. In the maximum habitat impacts layout, temporary disturbance would increase by about 140 acres. All temporary disturbance areas must be restored after completion of construction, as required by the Revegetation Plan that is incorporated in Condition 84. No Category 1 or Category 2 habitat would be affected by the permanent footprint of the facility or by temporary construction disturbance.

The Final Order on Amendment #1 (SFWF), the Council made findings regarding mitigation of potential adverse impacts to wildlife and wildlife habitat. Those findings are incorporated herein by this reference. Condition 83 requires the certificate holder to implement the Wildlife Monitoring and Mitigation Plan (WMMP) as incorporated in the Final Order on Amendment #1 (SFWF) as Attachment SFN-A. Condition 84 requires the certificate holder to implement the Revegetation Plan as incorporated in the Final Order on

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**Table: Category Habitats**

<table>
<thead>
<tr>
<th>Category</th>
<th>Subtotal</th>
<th>GL</th>
<th>RS</th>
<th>Subtotal</th>
<th>GL</th>
<th>RS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grassland</td>
<td></td>
<td>80.22</td>
<td>14.54</td>
<td>83.1</td>
<td>15.13</td>
<td></td>
</tr>
<tr>
<td>Rock and soil</td>
<td></td>
<td>2.88</td>
<td>0.59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shrub-step -- broom snakeweed</td>
<td>4.54</td>
<td>0.34</td>
<td>4.54</td>
<td>0.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal facility</td>
<td></td>
<td>7.1</td>
<td>0.81</td>
<td>12.56</td>
<td>1.12</td>
<td></td>
</tr>
<tr>
<td>Road and parking</td>
<td></td>
<td>5.46</td>
<td>0.31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Area</strong></td>
<td></td>
<td>298.59</td>
<td>52.765</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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72 Any new policy guidance issued after July 25, 2008, will not be applied to the previously-approved areas (teleconference with ODFW, the applicants and the Department, July 29, 2009).
73 Final Order on Amendment #1 (SFWF), pp. 53-54 (incorporating the findings from the Final Order on the Application for the Shepherds Flat Wind Farm (July 25, 2008), pp. 109-114).
Amendment #1 (SFWF) as Attachment SFN-B. The proposed amendment would increase the area within the site boundary from approximately 8,103 acres to approximately 9,264 as shown in Table 3 above but would otherwise require no substantive changes to the WMMP or to the Revegetation Plan.\(^74\) Condition 85 requires the certificate holder to implement the Habitat Mitigation Plan as incorporated in the Final Order on Amendment #1 (SFWF) as Attachment SFN-C. The Council finds that no substantive revisions of the WMMP, the Revegetation Plan or the Habitat Mitigation Plan are needed at this time. In Revision 12 discussed below at page 47, the Department recommended modification of Condition 86 to require the pre-construction surveys for State-listed threatened, endangered or sensitive wildlife species recommended by ODFW.

Conclusions of Law

For the reasons discussed above and subject to the site certificate conditions described herein, the Council concludes that SFN would comply with the Council’s Fish and Wildlife Habitat Standard if Amendment #1 were approved.

5. Standards Not Applicable to Site Certificate Eligibility

Under ORS 469.501(4), the Council may issue a site certificate without making the findings required by the standards discussed in this section (Structural Standard, Historic, Cultural and Archaeological Resources Standard, Public Services Standard and Waste Minimization Standard).\(^75\) Nevertheless, the Council may impose site certificate conditions based on the requirements of these standards.

(a) Structural Standard

\begin{definition}
OAR 345-022-0020

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

(a) The applicant, through appropriate site-specific study, has adequately characterized the site as to Maximum Considered Earthquake Ground Motion identified at International Building Code (2003 Edition) Section 1615 and maximum probable ground motion, taking into account ground failure and amplification for the site specific soil profile under the maximum credible and maximum probable seismic events; and

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

\end{definition}

\(^74\) No turbines are proposed to be located within the new area. The micrositing acreage shown on page 1, line 8, of the WMMP and page 1, line 20, of the Revegetation Plan does not reflect the area added by this amendment.

\(^75\) This statute provides that the Council may not impose certain standards “to approve or deny an application for an energy facility producing power from wind.” ORS 469.300 defines an “application” as “a request for approval of a particular site or sites for the construction and operation of an energy facility or the construction and operation of an additional energy facility upon a site for which a certificate has already been issued, filed in accordance with the procedures established pursuant to ORS 469.300 to 469.563, 469.590 to 469.619, 469.930 and 469.992.” Although ORS 469.501(4) does not explicitly refer to a request for a site certificate amendment, we assume that the Legislature intended it to apply.
“hazard” includes ground shaking, ground failure, landslide, liquefaction, lateral spreading, tsunami inundation, fault displacement, and subsidence;

(c) The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soils hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility; and

(d) The applicant can design, engineer and construct the facility to avoid dangers to human safety presented by the hazards identified in subsection (c).

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

* * *

Related Conditions

In the Final Order on Amendment #1 (SFWF), the Council made findings regarding the seismic, geological and soil hazards in the SFN.76 Those findings are incorporated herein by this reference. The site certificate includes conditions addressing structural safety (Conditions 12, 13, 14, 47, 48 and 49). Amendment #1 would enlarge the SFN site to allow for an alternate transmission line route but would not result in placement of facility components within geologic areas that have not been addressed by the Council. The Council finds that no changes to the site certificate conditions related to the Structural Standard are needed.

(b) Historic, Cultural and Archaeological Resources

OAR 345-022-0090

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

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

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

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

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

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76 Final Order on Amendment #1 (SFWF), p. 56 (incorporating the findings in the Final Order on the Application for the Shepherds Flat Wind Farm (July 25, 2008), pp. 115-117).
Related Conditions

In the Final Order on the Application for the Shepherds Flat Wind Farm, the Council reviewed cultural resource surveys of the areas within the SFN and SFC site boundaries (encompassing nearly all of the proposed SFN expansion area). The Council’s previous findings are incorporated herein by this reference. The cultural resource surveys were conducted in consultation with the State Historic Preservation Office, the Confederated Tribes of Warm Springs and the Confederated Tribes of the Umatilla Indian Reservation. The Council adopted Conditions 43, 44 and 45 to safeguard cultural resources in the SFN area. These conditions would apply as well to the proposed expansion area. The Council finds that no changes to the site certificate conditions related to the Historic, Cultural and Archaeological Resources Standard are needed.

(c) Public Services

OAR 345-022-0110

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

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

* * *

Related Conditions

In the Final Order on Amendment #1 (SFWF), the Council addressed the potential impacts of construction and operation of SFN on the ability of public and private providers within the analysis area to provide public services. The Council’s previous findings are incorporated herein by this reference. The site certificate includes conditions addressing public services (Conditions 27, 52, 53, 54, 55, 56, 65, 66, 67, 68, 69, 70, 73, 75, 78, 99 and 100). Amendment #1 would expand the facility site to allow an optional transmission line route but would not change the analysis of affected public services. The Council finds that no changes to the site certificate conditions related to the Public Services Standard are needed.

(d) Waste Minimization

OAR 345-022-0120

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

77 Final Order on the Application for the Shepherds Flat Wind Farm (July 25, 2008), pp. 118-122.
78 Final Order on Amendment #1 (SFWF), p. 57 (incorporating the findings in the Final Order on the Application for the Shepherds Flat Wind Farm (July 25, 2008), pp. 122-127).
(a) The applicant’s solid waste and wastewater plans are likely to minimize
generation of solid waste and wastewater in the construction and operation of the
facility, and when solid waste or wastewater is generated, to result in recycling
and reuse of such wastes;

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

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

Related Conditions

In the Final Order on Amendment #1 (SFWF), the Council made findings and adopted
site certificate conditions regarding the solid waste and wastewater likely to be generated
during the construction, operation and retirement of SFN and the impact on surrounding
communities.79 The Council’s previous findings are incorporated herein by this reference. The
Council adopted Conditions 50, 51, 99, 100, 101 and 102 to address waste management
concerns. Amendment #1 would expand the facility site to allow an optional transmission line
route but would not change the analysis of waste minimization. The Council finds that no
changes to the site certificate conditions related to the Waste Minimization Standard are
needed.

V. OTHER APPLICABLE REGULATORY REQUIREMENTS: FINDINGS AND
CONCLUSIONS

1. Requirements under Council Jurisdiction

Under ORS 469.503(3) and under the Council’s General Standard of Review (OAR
345-022-0000), the Council must determine that a facility complies with “all other Oregon
statutes and administrative rules identified in the project order, as amended, as applicable to
the issuance of a site certificate for the proposed facility.” Other Oregon statutes and
administrative rules that are applicable to the changes requested in Amendment #1 include the
Department of Environmental Quality (DEQ) noise control regulations, the regulations
adopted by the Department of State Lands (DSL) for removal or fill of material affecting
waters of the state, the Oregon Water Resources Department’s (OWRD) regulations for water
rights and the Council’s statutory authority to consider protection of public health and safety.

(a) Noise Control Regulations

The applicable noise control regulations are as follows:

OAR 340-035-0035
Noise Control Regulations for Industry and Commerce
(1) Standards and Regulations:

79 Final Order on Amendment #1 (SFWF), p. 58 (incorporating the findings from the Final Order on the
Application for the Shepherds Flat Wind Farm (July 25, 2008), pp. 76-77).
(b) New Noise Sources:

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)-(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The “actual ambient background level” is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with windspeed measurements of hub height conditions at the nearest wind turbine location. “Actual ambient background level” does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

(IV) For purposes of determining whether a proposed wind energy facility would satisfy the ambient noise standard where a landowner has not waived the standard, noise levels at the appropriate measurement point are predicted assuming that all of the proposed wind facility’s turbines are operating between cut-in speed and the wind speed corresponding to the maximum sound power level established by IEC 61400-11 (version 2002-12). These predictions must be compared to the highest of either the assumed ambient noise level of 26 dBA or to
the actual ambient background L10 and L50 noise level, if measured. The facility complies with the noise ambient background standard if this comparison shows that the increase in noise is not more than 10 dBA over this entire range of wind speeds.

(V) For purposes of determining whether an operating wind energy facility complies with the ambient noise standard where a landowner has not waived the standard, noise levels at the appropriate measurement point are measured when the facility’s nearest wind turbine is operating over the entire range of wind speeds between cut-in speed and the windspeed corresponding to the maximum sound power level and no turbine that could contribute to the noise level is disabled. The facility complies with the noise ambient background standard if the increase in noise over either the assumed ambient noise level of 26 dBA or to the actual ambient background L10 and L50 noise level, if measured, is not more than 10 dBA over this entire range of winds speeds.

(VI) For purposes of determining whether a proposed wind energy facility would satisfy the Table 8 standards, noise levels at the appropriate measurement point are predicted by using the turbine’s maximum sound power level following procedures established by IEC 61400-11 (version 2002-12), and assuming that all of the proposed wind facility’s turbines are operating at the maximum sound power level.

(VII) For purposes of determining whether an operating wind energy facility satisfies the Table 8 standards, noise generated by the energy facility is measured at the appropriate measurement point when the facility’s nearest wind turbine is operating at the windspeed corresponding to the maximum sound power level and no turbine that could contribute to the noise level is disabled.

* * *

Findings of Fact

In the Final Order on the Application for the Shepherds Flat Wind Farm, the Council concluded that the proposed SFWF, subject to site certificate conditions, would comply with the State noise control regulations. The Council’s findings were based on analysis of predicted noise levels from a “default layout” that included 280 Siemens SWT-93 2.3-MW turbines in the northern project area and 23 Vestas V90 3.0-MW turbines in the southern project area and that included two substations contributing to predicted noise levels. The Council found that the SFWF would comply with the applicable noise regulations if it were constructed according to the default layout and if the certificate holder acquired noise waivers from the owners of five properties where the predicted noise levels exceeded the ambient degradation limit.

In the Final Order on Amendment #1 (SFWF), the Council found that the division of the SFWF into three separate facilities within the previously-approved site boundary of the SFWF with no increase in the combined maximum number of turbines would not significantly

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80 Final Order on the Application for the Shepherds Flat Wind Farm (July 25, 2008), p. 136.
81 Final Order on the Application for the Shepherds Flat Wind Farm (July 25, 2008), p. 135.
change the noise analysis.82 The Council found that the cumulative noise emissions from
SFN, SFC and SFS would comply with the noise regulations and that the separate noise
emissions from each of the proposed facilities would also comply with the regulations if each
facility were constructed according to the previously-analyzed default layout and if the
certificate holder acquired noise waivers from the owners of properties where the ambient
degradation limit would be exceeded.

The changes to SFN requested in the present amendment include expansion of the site
to accommodate an alternate transmission line route. The amendment would not change the
turbine micrositing area and would not increase the number of turbines authorized for
construction at SFN. Therefore, this amendment would not be expected to result in a change
in the amount of sound radiating from the project to noise sensitive receivers. During the
review of the amendment request, however, the certificate holder provided a new noise
analysis based on selection of GE 2.5xl turbines and a revised turbine layout (different from
the layout used in the original noise analysis for SFWF).83 The certificate holder’s noise
analysis was conducted by Mr. Bruce Walker, PhD of Channel Island Acoustics, the same
consultant who performed the original SFWF noise study. Mr. Kerrie Standlee, P.E. of Daly-
Standlee & Associates, Inc., reviewed the SFN study for the Department and confirmed
Walker’s findings.

The original noise study conducted for SFWF did not include sound attenuation
factors for ground absorption and topographical barriers, and so the results were considered to
be very conservative. For the SFN noise analysis, Walker accounted for ground and
topographical attenuation along with atmospheric attenuation and distance attenuation.84 At
the request of the Department, Walker predicted sound levels at ten noise sensitive receivers
(Receivers R-2 through R-11) using the manufacturer’s stated “apparent sound power level”
data increased by what was believed to be the “uncertainty” factor. Upon review of the
manufacturer’s specification data, however, Standlee determined that the certificate holder’s
analysis had used the standard deviation of 1.5 decibels (dB) associated with the turbine test
reproducibility rather than the 3 dB associated with the “uncertainty” factor.85 Nevertheless,
Standlee determined that the findings presented in the noise study would have been the same
if the 3-dB adjustment factor had been included in the analysis rather than the 1.5-dB
adjustment factor.

The certificate holder elected to use the assumed ambient hourly L₅₀ noise level of 26
dBA for the background ambient noise level at each noise sensitive receiver as allowed under
OAR 340-035-0035(1)(b)(B)(iii)(I) rather than to conduct noise measurements at the
receivers. Accordingly, to show compliance with the ambient noise degradation test, the noise
generated by the operation of the proposed SFN wind turbines between cut-in wind speed and
maximum sound power level wind speed must not cause the hourly L₅₀ noise level at any
noise sensitive receiver to exceed 36 dBA.

The certificate holder proposes to construct up to 106 wind turbines within the site
boundaries. The certificate holder requests the flexibility to locate the turbines anywhere

82 Final Order on Amendment #1 (SFWF), p. 60.
83 Email from Patricia Pilz, January 16, 2010.
84 Walker utilized SoundPLAN 7.0, an ISO 9613-2 compliant noise propagation modeling program.
85 The manufacturer refers to this adjustment factor as the “K” factor.
within the proposed site boundary, subject to the conditions of the site certificate. A potential layout of turbines was provided for 106 GE 2.5-MW turbines. The certificate holder provided A-weighted overall sound power level and octave band data for the GE wind turbine model that was used in the noise modeling. To support the conclusion that the submitted layout would be in compliance with the noise regulations, Walker modeled the sound pressure levels that would be found at each noise sensitive receiver based on this turbine layout.

The results of the noise study show the noise radiating from the turbines would not exceed the DEQ maximum allowable hourly $L_{10}$ noise level limit of 50 dBA or the hourly $L_{50}$ noise level limit of 55 dBA at any of the ten noise sensitive receivers. Standlee considered this finding to be valid even if the total 3-dB adjustment factor had been added into the sound power level value included in the noise predictions. The results of the study show that, with or without the inclusion of the additional sound power level adjustment factor, the noise radiating to each of the ten receivers would exceed the ambient hourly $L_{50}$ noise degradation limit of 36 dBA. Therefore, the certificate holder would be required to either alter the layout of the turbines in the final layout to reduce noise levels to 36 dBA (or less) at each residence or obtain waivers from the owners of all ten noise sensitive properties allowing the noise levels to rise above the 36 dBA limit.

Condition 3 requires the certificate holder to operate the facility in accordance with all applicable state laws and administrative rules. Condition 97 ensures that the final design configuration of SFN would comply with the noise control regulations. This condition requires the certificate holder to provide information about the turbines selected and about the final design layout to the Department before beginning construction. The condition requires the certificate holder to provide a noise analysis based on that final design and to demonstrate to the satisfaction of the Department that the facility would comply with the applicable noise control regulations.

The Council has the authority to act in the place of the DEQ to enforce OAR 340-035-0035(4)(a) and require the owner of an operating noise source to monitor and record the statistical noise levels upon written notification. Condition 98 requires the certificate holder to notify the Department of any complaints received about noise from the facility as well as the actions taken to address them. In the event of a complaint regarding noise levels during operation of SFN, the Council may require the certificate holder to verify that the facility is operating in compliance with the noise control regulations.

**Conclusions of Law**

For the reasons discussed above and subject to the conditions discussed herein, the Council concludes that SFN would comply with the applicable noise control regulations in OAR 340-035-0035 if Amendment #1 were approved.

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86 Email from Patricia Pilz, January 16, 2010.
87 Email from Patricia Pilz, January 26, 2010.
88 The certificate holder would have the option to conduct measurements to determine the actual ambient $L_{10}$ and $L_{50}$ background levels rather than using an assumed background $L_{50}$ ambient noise level of 26 dBA.
(b) Removal-Fill Law

The Oregon Removal-Fill Law (ORS 196.795 through 196.990) and regulations (OAR 141-085-0500 through 141-085-0785) adopted by the Department of State Lands (DSL) require a permit if 50 cubic yards or more of material is removed, filled or altered within any “waters of the state” at the proposed site. The Council must determine whether a permit is needed and should be issued. The U.S. Army Corps of Engineers administers Section 404 of the Clean Water Act, which regulates the discharge of fill into waters of the United States (including wetlands), and Section 10 of the Rivers and Harbors Appropriation Act of 1899, which regulates placement of fill in navigable waters. Federal law may require a Nationwide or Individual fill permit for the proposed facility if waters of the United States are affected. A single application form (a Joint Permit Application Form) is used to apply for both the State and federal permits.

Findings of Fact

In the Final Order on the Application for the Shepherds Flat Wind Farm, the Council found that a Removal/Fill Permit was not needed for construction of the SFWF. Those findings are incorporated herein by this reference. The Council found that the SFWF 230-kV transmission line would cross one State-jurisdictional water (Eightmile Creek). Impacts would be avoided by placing transmission line support structures outside a 10-foot buffer bordering the creek. No material would be removed from the creek channel or added as fill within the creek channel. In the Final Order on Amendment #1 (SFWF), the Council found that the division of the SFWF into three separate facilities within the previously-approved site boundary of the SFWF would not affect any areas that were not previously addressed by the delineation report on the wetlands and waters within the SFWF analysis area.

Eightmile Creek lies outside the expanded SFN site boundary proposed by Amendment #1. Nearly all of the area that would be added to SFN by this amendment lies within the previously-approved SFC site. This portion of the SFC area was addressed by the delineation survey that was done for the SFWF. No State-jurisdictional waters were found in this area. An area of approximately 8.8 acres within the proposed alternate transmission corridor between SFC and BPA’s new Slatt substation was not included in the 2007 SFWF delineation.

DSL has reviewed the amendment request and the three delineation reports that cover the areas of the three Shepherds Flat projects. DSL has confirmed that, if the project areas are covered by the three delineations, no further information would be needed.
construction would occur in any areas outside the previously-surveyed areas, the delineation might need to be amended. The certificate holder has agreed to conduct a delineation survey before beginning construction for areas not covered by earlier surveys. In Revision 14, the Council adopts new Condition 103 that would require a preconstruction survey for potential waters of the state in areas not previously investigated and avoidance of impact on any jurisdictional waters that are found.

Conclusions of Law

For the reasons discussed above, the Council concludes that a Removal/Fill authorization would not be needed for SFN if Amendment #1 were approved.

(c) Water Rights

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

Findings of Fact

In the Final Order on Amendment #1 (SFWF), the Council found that the certificate holder would not need to obtain a new water right for the water needed by the SFN facility during construction or operation. The Council found that up to 23,320,000 gallons of water would be needed for construction of SFN, assuming construction of 106 wind turbines. The certificate holder would obtain construction water from the City of Arlington or alternatively from a “service area” that would be permitted, constructed and operated by third-party contractors. During operation, water would be supplied from an on-site well located at the SFN field workshop. Condition 78 ensures that less than 5,000 gallons of water per day would be taken from the on-site well for operational uses.

The certificate holder has confirmed the previous estimate that up to 23,320,000 gallons of water would be needed for construction of SFN. The possible sources of this water would be the same as previously considered by the Council in the Final Order on Amendment #1 (SFWF). The proposed amendment would not change the water use during operation. The Council finds that the certificate holder would not need to obtain any new water rights for the facility as a result of the changes requested by this amendment.

Conclusions of Law

Based on the findings discussed above, the Council concludes that SFN would comply with applicable regulations pertaining to water rights if Amendment #1 were approved.

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98 Email from Sarah Kelly, DSL, November 30, 2009.
99 Email from Patricia Pilz, January 2, 2010.
100 Final Order on Amendment #1 (SFWF), pp. 62-63.
101 Each service area would include a portable concrete batch plant, a refueling station and a water well (email from Patricia Pilz, July 12, 2009).
102 ORS 537.545 provides a water right exemption for industrial and commercial uses of up to 5,000 gallons per day. The statute was amended in 2009 to require the owner of land on which an exempt well is drilled to provide a map to WRD showing the exact location of the well and to file the exempt water use with WRD for recording with submittal of a fee.
103 Email from Patricia Pilz, December 16, 2009.
(d) Public Health and Safety

Under ORS 469.310, the Council is charged with ensuring that the “siting, construction and operation of energy facilities shall be accomplished in a manner consistent with protection of the public health and safety....” State law further provides that “the site certificate shall contain conditions for the protection of the public health and safety....” ORS 469.401(2).

Findings of Fact

We discuss the Council’s Public Health and Safety Standards for Wind Energy Facilities above at page 20. In this section, we discuss the issues of fire protection, magnetic fields and coordination with the Oregon Public Utility Commission and the Boardman Military Operating Area.

A. Fire Protection

In the Final Order on Amendment #1 (SFWF), the Council made findings and adopted conditions regarding fire prevention and response for SFN. Those findings are incorporated herein by this reference. The proposed amendment would enlarge the SFN site to accommodate an alternative route for a 230-kV transmission line. The changes requested by the amendment would not result in new fire risks that would be different from the types of risk already considered by the Council. The site certificate includes conditions that address fire protection and response (Conditions 53, 54, 55, 56, 58 and 60), and the Council finds that no new fire protection conditions are necessary.

B. Magnetic Fields

Electric transmission lines create both electric and magnetic fields. The electric fields associated with the proposed transmission lines are addressed above at page 22. The certificate holder proposes to construct an aboveground 230-kV interconnection transmission line as described in the amendment request. In the Final Order on the Application for the Shepherds Flat Wind Farm, the Council made findings regarding the magnetic fields that could be produced by aboveground 230-kV transmission lines. Those findings are incorporated herein by this reference. The Final Order includes references to the scientific literature on the biological effects of exposure to electric and magnetic fields. The Council has not found sufficient information upon which to set health-based limits for exposure to magnetic fields. Nevertheless, the Council has encouraged applicants to implement low-cost measures to reduce or manage public exposure to magnetic fields from transmission lines under the Council’s jurisdiction. Condition 81 requires the certificate holder to take reasonable steps to reduce or manage human exposure to electromagnetic fields, including specific measures listed in the condition.

104 Final Order on Amendment #1 (SFWF), p. 63 (incorporating findings from the Final Order on the Application (July 25, 2008), p. 139).
105 Request for Amendment #1, Section I, p. 1.
106 Final Order on the Application for the Shepherds Flat Wind Farm (July 25, 2008), pp. 139-141.
107 A recent review of the scientific literature confirmed the Council’s earlier findings (Golder Associates, EMF Report, November 23, 2009).
C. Coordination with the PUC

The Oregon Public Utility Commission Safety and Reliability Section (PUC) has requested that the Council ensure that certificate holders coordinate with PUC staff on the design and specifications of electrical transmission lines and the natural gas pipelines. The PUC has explained that others in the past have made inadvertent, but costly, mistakes in the design and specifications of power lines and pipelines that could have easily been corrected early if the developer had consulted with the PUC staff responsible for the safety codes and standards. Condition 82 requires the certificate holder to coordinate the design of electric transmission lines with the PUC.

D. Boardman Military Operating Area

In the Final Order on the Application for the Shepherds Flat Wind Farm, the Council made findings regarding the Boardman Military Operating Area (BMOA), which lies to the east of the SFN site boundary. Those findings are incorporated herein by this reference. The certificate holder has agreed to provide the proposed final project layout to the Navy before construction and to work with the Navy to accommodate the Navy’s interest in safe aviation training routes, which may include adjusting turbine locations where feasible.

Conclusions of Law

Based on the findings discussed above and subject to the site certificate conditions discussed herein, the Council concludes that SFN would comply with requirements to protect public health and safety if Amendment #1 were approved.

2. Requirements That Are Not Under Council Jurisdiction

(a) Federally-Delegated Programs

Under ORS 469.503(3), the Council does not have jurisdiction for determining compliance with statutes and rules for which the federal government has delegated the decision on compliance to a state agency other than the Council. Nevertheless, the Council may rely on the determinations of compliance and the conditions in the federally-delegated permits issued by these state agencies in deciding whether the proposed facility meets other standards and requirements under its jurisdiction.

(b) Requirements That Do Not Relate to Siting

Under ORS 469.401(4), the Council does not have authority to preempt the jurisdiction of any state agency or local government over matters that are not included in and governed by the site certificate or amended site certificate. Such matters include design-specific construction or operating standards and practices that do not relate to siting. Nevertheless, the Council may rely on the determinations of compliance and the conditions in the permits issued by these state agencies and local governments in deciding whether the facility meets other standards and requirements under its jurisdiction.

108 Final Order on the Application for the Shepherds Flat Wind Farm (July 25, 2008), p. 141.
109 Email from Patricia Pilz, July 17, 2009.
VI. GENERAL APPLICATION OF CONDITIONS

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

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

The Council recognizes that many specific tasks related to the design, construction, operation and retirement of the facility will be undertaken by the certificate holder’s agents or contractors. Nevertheless, the certificate holder is responsible for ensuring that all agents and contractors comply with all provisions of the site certificate.

VII. GENERAL CONCLUSION

The proposed amendment would expand the facility site to allow an optional transmission line route and would create an exception to Condition 40(d) regarding the minimum setback distance from facility wind turbines to the nearest boundary of the certificate holder’s lease area. The Council adopts revisions to the site certificate as described in the section that follows.

Based on the findings and conclusions discussed above regarding the proposed amendment, the Council makes the following findings:

1. The proposed Amendment #1 complies with the requirements of the Oregon Energy Facility Siting statutes, ORS 469.300 to ORS 469.570 and 469.590 to 469.619.

2. The proposed Amendment #1 complies with the applicable standards adopted by the Council pursuant to ORS 469.501.

3. The proposed Amendment #1 complies with all other Oregon statutes and administrative rules applicable to the amendment of the site certificate that are within the Council’s jurisdiction.

Accordingly, the Council finds that the facility complies with the General Standard of Review (OAR 345-022-0000). The Council concludes, based on a preponderance of the

110 With regard to land use, the applicable local criteria are those in effect on the date the certificate holder submitted the request for amendment.
evidence on the record, that the site certificate may be amended as requested by the certificate holder, subject to the revisions recommended by the Department and set forth below.

1. The Department’s Recommended Revisions

New text proposed by the Department is shown with a single underline. New text proposed by the certificate holder with concurrence by the Department is shown with a double underline. Text proposed by the certificate holder but not recommended by the Department is not shown. Deletions are shown with a strikethrough. The parenthetical references in square brackets follow standard practice and provide a historical reference of when changes were made to the site certificate. Page references are to the Site Certificate for Shepherds Flat North (September 11, 2009).

Revision 1

Page 1, lines 7-15:

The findings of fact, reasoning and conclusions of law underlying the terms and conditions of this site certificate are set forth in the following documents, incorporated herein by this reference: (a) the Council’s Final Order on the Application for the Shepherds Flat Wind Farm issued on July 25, 2008, and (b) the Final Order on Amendment #1 for the Shepherds Flat Wind Farm, and (c) the Final Order on Amendment #1. In interpreting this site certificate, any ambiguity will be clarified by reference to the following, in order of priority: (1) this First Amended Site Certificate, (2) the Final Order on Amendment #1, (3) the Final Order on Amendment #1 for the Shepherds Flat Wind Farm, (4) the Final Order on the Application for the Shepherds Flat Wind Farm and (45) the record of the proceedings that led to the Final Orders on the Application and Amendment #1 for the Shepherds Flat Wind Farm and to the Final Order on Amendment #1. [Amendment #1 (SFWF); Amendment #1]

Revision 1 Explanation

This revision adds a reference in the site certificate to the findings of fact, reasoning and conclusions in support of the present amendment. The revision establishes the order of priority in which the underlying documents should be considered in resolving any ambiguity. The present amendment of the site certificate for SFN is designated as “Amendment #1” and is distinguished from Amendment #1 for the Shepherds Flat Wind Farm, which is designated as “Amendment #1 (SFWF).”

Revision 2

Page 1, lines 16-22:

This site certificate is issued concurrently with site certificates for Shepherds Flat Central and Shepherds Flat South, as described in the Final Order on Amendment #1 for the Shepherds Flat Wind Farm, each of the three relating to a physically and geographically discrete portion of the facility authorized by the Site Certificate for the Shepherds Flat Wind Farm (July 25, 2008). Effective upon execution of all three new site certificates, the new site certificates will supersede the Site Certificate for the Shepherds Flat Wind Farm, which will be of no further force and effect. [Text added by Amendment #1 (SFWF) was removed by Amendment #1.]

111 The only specific change to the site certificate proposed by the certificate holder is a change to Condition 40(d), shown in the Request for Amendment #1, Section IV, p. 2.

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Revision 2 Explanation

For the purposes of the original site certificate for SFN, the deleted text explained that Amendment #1 (SFWF) created SFN as a separate facility with its own site certificate. Concurrently, Amendment #1 (SFWF) created SFC and SFS. Separate site certificates for each of the new facilities were executed and became effective on September 11, 2009, and superseded the previous site certificate for the SFWF, which has no further force or effect. Because that effective date has occurred, the deleted text is no longer necessary or appropriate for the SFN site certificate. Future amendments of this site certificate may or may not occur concurrently with amendments of the site certificates for SFC and SFS.

Revision 3

Page 1, line 33, through page 2, line 3:

3. This site certificate does not address, and is not binding with respect to, matters that were not addressed in the Council’s Final Orders on the Application and Amendment #1 for the Shepherds Flat Wind Farm and in the Final Order on Amendment #1. Such matters include, but are not limited to: building code compliance, wage, hour and other labor regulations, local government fees and charges and other design or operational issues that do not relate to siting the facility (ORS 469.401(4)) and permits issued under statutes and rules for which the decision on compliance has been delegated by the federal government to a state agency other than the Council. 469.503(3). [Amendment #1 (SFWF); Amendment #1]

Revision 3 Explanation

This revision adds the matters addressed in the Final Order on Amendment #1 to the scope of matters addressed in the site certificate.

Revision 4

Page 2, lines 30-34:

The energy facility is an electric power generating facility with an average electric generating capacity of up to 106 megawatts and a peak generating capacity of not more than 318 megawatts that produces power from wind energy. The facility consists of not more than 106 wind turbines. The energy facility is described further in the Final Order on Amendment #1 for the Shepherds Flat Wind Farm and in the Final Order on Amendment #1. [Amendment #1 (SFWF); Amendment #1]

Revision 4 Explanation

The revision adds cross-references to descriptions of the facility in the present order.

Revision 5

Page 2, line 35, through page 3, line 8:

The facility includes the following related or supporting facilities described below and in greater detail in the Final Order on Amendment #1 for the Shepherds Flat Wind Farm and in the Final Order on Amendment #1:

- Power Collection System
- Collector Substation
- Meteorological towers
- Field workshop
- Control system
• Access roads
• Additional construction areas

[Amendment #1 (SFWF); Amendment #1]

Revision 5 Explanation

The revision adds a cross-reference to descriptions of the related or supporting facilities in the present order.

Revision 6

Page 3, lines 10-14:

A power collection system operating at 34.5 kilovolts (kV) transports power from each turbine to a collector substation. To the extent practicable, the collection system is installed underground at a depth of at least three feet. Segments of the collector system are aboveground. Aboveground segments are installed on single-pole, cross-arm structures or

understrung on the 230-kV transmission line support structures (described below).

[Amendment #1]

Revision 6 Explanation

This revision eliminates the option of building any segments of the collector system aboveground.

Revision 7

Page 11, lines 4-42:

Before beginning construction, the certificate holder shall submit to the State of Oregon through the Council a bond or letter of credit in the amount described herein naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The initial bond or letter of credit amount is either $7,802,843 million (3rd Quarter 2009 dollars), to be adjusted to the date of issuance as described in (b), or the amount determined as described in (a). The certificate holder shall adjust the amount of the bond or letter of credit on an annual basis thereafter as described in (b).

(a) The certificate holder may adjust the amount of the bond or letter of credit based on the final design configuration of the facility and turbine types selected by applying the unit costs and general costs illustrated in Table 1 in the Final Order on Amendment #1 for the Shepherds Flat Wind Farm and calculating the financial assurance amount as described in that order, adjusted to the date of issuance as described in (b) and subject to approval by the Department.

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

(i) Adjust the Subtotal component of the bond or letter of credit amount (expressed in 3rd Quarter 2009 dollars) to present value, using the U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight, as published in the Oregon Department of Administrative Services’ “Oregon Economic and Revenue Forecast” or by any successor agency (the “Index”) and using the index value for 3rd Quarter 2009 dollars and the quarterly index value for the date of issuance of the new bond or letter of credit.

If at any time the Index is no longer published, the Council shall select a comparable calculation to adjust 3rd Quarter 2009 dollars to present value.

(ii) Add 1 percent of the adjusted Subtotal (i) for the adjusted performance bond amount to determine the adjusted Gross Cost.
(iii) Add 10 percent of the adjusted Gross Cost (ii) for the adjusted administration and project management costs and 10 percent of the adjusted Gross Cost (ii) for the adjusted future developments contingency.

(iv) Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and round the resulting total to the nearest $1,000 to determine the adjusted financial assurance amount.

(c) The certificate holder shall use a form of bond or letter of credit approved by the Council.

(d) The certificate holder shall use an issuer of the bond or letter of credit approved by the Council.

(e) The certificate holder shall describe the status of the bond or letter of credit in the annual report submitted to the Council under Condition 21.

(f) The bond or letter of credit shall not be subject to revocation or reduction before retirement of the facility site.

[Amendment #1 (SFWF); Amendment #1]

Revision 7 Explanation

This revision adjusts the initial financial assurance amount based on the changes requested in Amendment #1 and expresses the total in 1st Quarter 2010 dollars.

Revision 8

Page 12, line 40, through page 13, line 13:

40 The certificate holder shall construct all facility components in compliance with the following setback requirements:

(a) All facility components must be at least 3,520 feet from the property line of properties zoned residential use or designated in the Gilliam County Comprehensive Plan as residential.

(b) Where (a) does not apply, the certificate holder shall maintain a minimum distance of 110-percent of maximum blade tip height, measured from the centerline of the turbine tower to the nearest edge of any public road right-of-way. The certificate holder shall assume a minimum right-of-way width of 60 feet.

(c) Where (a) does not apply, the certificate holder shall maintain a minimum distance of 1,320 feet, measured from the centerline of the turbine tower to the center of the nearest residence existing at the time of tower construction.

(d) Where (a) does not apply, the certificate holder shall maintain a minimum distance of 110-percent of maximum blade tip height, measured from the centerline of the turbine tower to the nearest boundary of the certificate holder’s lease area, except as provided in (e).

(e) The turbine tower setback distance described in (d) does not apply to one isolated area excluded from the certificate holder’s lease with the landowner identified as “Area A” in the Final Order on Amendment #1.

[Amendment #1]

Revision 8 Explanation

This revision modifies Condition 40 to allow an exception to the minimum setback distance of 110-percent of maximum blade tip height from a turbine tower to the nearest boundary of the certificate holder’s lease area. New subsection (e) allows an exception for a single isolated area that is specifically identified in this order. As described at page 21, this area is contained within a larger parcel of land that is owned by the same landowner. The area
is not accessible to the general public. The exception does not conflict with the requirements of subsections (a), (b) and (c).

Revision 9

Page 16, lines 29-31:

65 The certificate holder shall construct access roads with a finished width of approximately 16 feet, a compacted base of native soil and a gravel surface to a depth of four to sixteen inches. [Amendment #1 (SFWF); Amendment #1]

Revision 9 Explanation

This revision modifies Condition 65 to allow up to ten inches of gravel on access roads, as requested by the certificate holder.

Revision 10

Page 18, lines 9-15:

79 The certificate holder shall install the 34.5-kV collector system underground to the extent practicable. The certificate holder shall install underground lines at a minimum depth of three feet. Based on geotechnical conditions or other engineering considerations, the certificate holder may install segments of the collector system aboveground on single-pole, cross arm structures or understrung on the 230-kV transmission line support structures, but the total length of aboveground segments installed on single-pole structures must not exceed 12.9 miles. [Amendment #1 (SFWF); Amendment #1]

Revision 10 Explanation

The certificate holder has determined that the collector system for SFN will be installed entirely underground. This revision modifies Condition 79 to remove the option of installing segments of the collector system aboveground.

Revision 11

Page 18, lines 18-33:

81 The certificate holder shall take reasonable steps to reduce or manage human exposure to electromagnetic fields, including but not limited to:

(a) Constructing all aboveground transmission lines at least 200 feet from any residence or other occupied structure, measured from the centerline of the transmission line.

(b) Constructing all aboveground 34.5-kV transmission lines with a minimum clearance of 20 feet from the ground. [Text removed by Amendment #1]

(c) Constructing all aboveground 230-kV transmission lines with a minimum clearance of 24 feet from the ground.

(d) Fencing the areas near the facility substation to ensure that substation equipment is not accessible to the public.

(e) Providing to landowners a map of underground and overhead transmission lines on their property and advising landowners of possible health risks.

(f) Designing and maintaining all transmission lines so that alternating current electric fields do not exceed 9 kV per meter at one meter above the ground surface in areas accessible to the public. [Amendment #1 (SFWF); Amendment #1]
Revision 11 Explanation

The certificate holder has determined that the collector system for SFN will be installed entirely underground. This revision modifies Condition 81 to remove the reference to aboveground segments of the collector system.

Revision 12

Page 19, lines 15-36:

The certificate holder shall avoid permanent and temporary disturbance to the areas described in (a) through (g) and, during the times indicated, shall avoid construction disturbance in the areas described in (h) and (i) through (k). The certificate holder shall flag these areas for the duration of construction activities nearby and shall ensure that construction personnel avoid disturbance of the areas. The avoidance areas are:

(a) All Category 1 habitat and those areas of Category 2 habitat shown on the “ODFW-2” Figures 1 through 12 in the Shepherds Flat Wind Farm Application.

(b) [text removed by Amendment #1 (SFWF)]

(c) All seeps, riparian areas and vernal pools.

(d) All water sources for wildlife, including perennial and intermittent streams, stock ponds and watering stations.

(e) All faces of bluffs or rock outcroppings.

(f) All trees or other structures that contain active raptor nests.

(g) For the facility substation and field workshop, all Category 3 habitat.

(h) [text removed by Amendment #1 (SFWF)]

(i) The area within 0.5 miles of Category 3 curlew nesting habitat and the area within 0.5 miles the BLM Horn Butte Wildlife Area during the nesting season (March 8 through June 15). Before beginning construction, the certificate holder shall provide to the Department a map showing these avoidance areas relative to areas of potential construction disturbance. The certificate holder may engage in construction activities in these areas at times other than the nesting season.

(j) The area within 1,000 feet of any essential, limited and irreplaceable Washington ground squirrel (WGS) habitat within the new areas added to the site by Amendment #1 (excluding the areas within the site boundaries of Shepherds Flat North, Shepherds Flat Central and Shepherds Flat South as approved on September 11, 2009) during the period in which the squirrels are active. The certificate holder shall hire a qualified independent professional biologist to conduct pre-construction surveys for State-listed threatened, endangered or sensitive wildlife species in these new areas within 1,000 feet of any area potentially disturbed by facility construction. To determine whether WGS habitat exists and to determine whether WGS are active, the biologist shall search for WGS in suitable habitat using a two-survey protocol approved by the Oregon Department of Fish and Wildlife (ODFW). The certificate holder shall submit the results of the survey to ODFW and to the Department. If signs of WGS activity are observed, the certificate holder shall flag the avoidance area and ensure that construction personnel avoid disturbance of the area until the biologist has determined that the WGS are no longer active.

(k) Areas within a suitable buffer around confirmed populations of Laurent’s milk-vetch or any other State-listed threatened or endangered plant species within the new areas added to the site by Amendment #1 (excluding the area within the site boundaries of Shepherds Flat North, Shepherds Flat Central and Shepherds Flat South as approved on September 11, 2009). The certificate holder shall not install facility components or cause temporary disturbance within these areas. The certificate holder shall hire a
qualified independent professional biologist to conduct pre-construction surveys for
State-listed threatened or endangered plant species in these new areas within 1,000 feet
of any area potentially disturbed by facility construction. The certificate holder shall
submit the results of the survey to the Department.

[Amendment #1]

Revision 12 Explanation

This revision modifies Condition 86 to add subsections (j) and (k). New subsection (j)
requires a preconstruction survey for State-listed threatened, endangered and sensitive wildlife
species in the new lands added to SFS by this amendment, as recommended by ODFW. In
particular, the certificate-holder would use an ODFW-approved protocol to search for WGS.
Any Category 1 WGS habitat identified during the survey would be avoided under subsection
(a) of this condition. In addition, the area within a 1,000-foot buffer would be avoided during
construction when WGS are active. The revision adds new subsection (k) to ensure avoidance
of impact to populations of Laurent’s milk-vetch or other State-listed threatened or
endangered plant species that are found during a preconstruction survey.

Revision 13

Page 20, lines 36-39:

The certificate holder shall impose and enforce construction and operation speed limits
of 5 miles per hour on roads within 1,000 feet of Category 1 or Category 2 Washington
ground squirrel habitat identified in the preconstruction survey required under Condition
86 and 20 miles per hour on all other facility roads and shall ensure that all construction
and operations personnel are instructed on the importance of cautious driving practices
while on facility roads. [Amendment #1 (SFWF); Amendment #1]

Revision 13 Explanation

This revision modifies Condition 92 to include a lower speed limit near any Category
1 or Category 2 Washington ground squirrel habitat that is found within the new areas lying
outside previously-approved site boundaries. This would apply only if WGS are found to be
active based on the preconstruction survey that is required under Condition 86(j), discussed
above.

Revision 14

Page 23, following line 15:

Before beginning construction, the certificate holder shall determine whether any
construction disturbance would occur in locations not previously investigated for
potential jurisdictional waters as described in the Final Order on Amendment #1. The
certificate holder shall conduct pre-construction investigations in these new areas within
1,000 feet of any area potentially disturbed by facility construction to determine whether
any State-jurisdictional waters exist in those locations. The certificate holder shall
submit a written report on the pre-construction investigation to the Department of
Energy and to the Department of State Lands for approval before beginning construction
and shall ensure that construction would have no impact on any jurisdictional water
identified in the report. [Amendment #1]
Revision 14 Explanation

This revision would add new Condition 103 to the site certificate to require pre-
construction survey of any areas not previously surveyed for waters of the state potentially
subject to the Removal/Fill law. If any jurisdictional waters are identified, the certificate
holder is required to take appropriate measures to avoid impacts on those areas.

VIII. ORDER

The Council approves Amendment #1 and issues an amended site certificate, subject
to the terms and conditions set forth above.

Issued this 12th day of March, 2010.

THE OREGON ENERGY FACILITY SITING COUNCIL

By: [Signature]
Robert Shiprack, Chair
Oregon Energy Facility Siting Council

Attachments
Attachment D: Amendment Request Comments and Department Responses

Notice of the Right to Appeal

You have the right to appeal this order to the Oregon Supreme Court pursuant to
ORS 469.403. To appeal you must file a petition for judicial review with the Supreme Court
within 60 days from the day this order was served on you. If this order was personally
delivered to you, the date of service is the date you received this order. If this order was
mailed to you, the date of service is the date it was mailed, not the day you received it. If you
do not file a petition for judicial review within the 60-day time period, you lose your right to
appeal.