

BEFORE THE ENERGY FACILITY SITING COUNCIL
OF THE
STATE OF OREGON

IN THE MATTER OF THE APPLICATION)
FOR A SITE CERTIFICATE FOR THE)
SUMMIT/WESTWARD PROJECT) FINAL ORDER

Issued by

Energy Facility Siting Council
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FINAL ORDER
SUMMIT/WESTWARD PROJECT

A. INTRODUCTION

The Oregon Energy Facility Siting Council (the “Council” or “EFSC”) issues this Final Order (the “Order”) pursuant to Oregon Revised Statutes (“ORS”) 469.370. This Order addresses the Application for a Site Certificate (the “ASC” or the “application”) for the construction and operation of a proposed 520-megawatt (“MW”) natural-gas-fired, combined-cycle generating facility. The facility would be located in Columbia County about 4.5 miles north of Clatskanie, Oregon. The proposed facility would be known as the Summit/Westward Project (the “Summit Project” or the “Project”). The Council grants the site certificate with conditions.

Westward Energy, LLC (“Summit/Westward”) submitted the application. Summit/Westward is an Oregon limited liability company. Northwest Energy Development, LLC (“NED”) is the sole owner of Summit/Westward. NED is an Oregon limited liability company.

The Council based this Order on its review of the ASC and the comments and recommendations on the ASC by state agencies, local governments, Indian tribes, and the public.

With certain exceptions, no energy facility with an electric generation capacity of 25 MW or more may be constructed or operated in Oregon without first obtaining a site certificate from the Council. ORS 469.300(9)(a) and 469.320.

It is the public policy of the State of Oregon that “the siting, construction and operation of energy facilities shall be accomplished in a manner consistent with protection of the public health and safety and in compliance with the energy policy and air, water, solid waste, land use and other environmental protection policies of this state.” ORS 469.310.

The Council must ensure that the site certificate contains “conditions for the protection of the public health and safety, for the time for completion of construction, and to ensure compliance with the standards, statutes and rules described in ORS 469.501 and ORS 469.503.” ORS 469.401(2).

A site certificate issued by the Council binds the state and all counties, cities, and political subdivisions of Oregon. Once the Council issues the site certificate, the responsible state agency or local government must issue without further proceedings any necessary permits that are addressed in the site certificate. ORS 469.401(3).

The Council reviewed the application and the comments of other state agencies and affected local governments and tribes identified in accordance with Oregon Administrative Rules (“OAR”) 345-021-0050. Based upon the discussion and conclusions contained in this Order, the Council grants the site certificate for the proposed Summit Project, subject to the conditions stated in this Order.

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

1
2 **B. PROCEDURAL HISTORY**

3 Pursuant to ORS 469.330, on February 27, 2001, Summit/Westward submitted to the Council a
4 Notice of Intent (the “NOI”) providing for the construction of a natural gas-fired energy facility
5 with a nominal electric generating capacity of 520 MW, together with its related or supporting
6 facilities, near Clatskanie, Oregon.
7

8 The Oregon Office of Energy (“OOE or “Office”) held an informational public meeting on the
9 proposed energy facility, as required by OAR 345-015-0130, on April 2, 2001, in Clatskanie,
10 Oregon. Comments received from the public with respect to the proposed energy facility took the
11 form of a petition from Washington residents expressing concern about visual and noise impacts.
12

13 The Office issued the Project Order on April 28, 2001.
14

15 Summit/Westward submitted its draft ASC on June 25, 2001.
16

17 Pursuant to 2001 House Bill (“HB”) 3788, section 15, which amends ORS 469.300–469.563 and
18 is codified at ORS 469.373, Summit/Westward submitted a Request for Expedited Review on
19 July 23, 2001. Because Summit/Westward had initiated its application for site certification upon
20 submittal of the NOI and delivery of the draft ASC and before enactment of HB 3788,
21 Summit/Westward specifically requested that the Council process for the Summit Project be
22 changed from the pre-HB 3788 process to the process described in section 15 of HB 3788.
23

24 By letter to Summit/Westward, dated August 5, 2001, the Office found, on a preliminary, non
25 binding basis, that Summit/Westward appeared to satisfy the criteria for expedited review set
26 forth in HB 3788.
27

28 On August 17, 2001, the Office found the ASC to be incomplete and made its first written
29 request for additional information. By letter to Summit/Westward, dated September 5, 2001, the
30 Office made its second request for additional information.
31

32 On November 30, 2001, Summit/Westward provided the Office with supplemental materials in
33 response to the requests for additional information. On January 22, 2002, Summit/Westward
34 provided a second response to OOE requests for additional information. Between January and
35 April 2002, Summit/Westward provided further information about the Project, including a
36 wetland permit application, wastewater discharge permit applications required by the
37 Department of Environmental Quality (“DEQ”), additional studies of the proposed facility’s
38 impact on local traffic, information about the facility’s expected fuel consumption, and
39 information on Summit/Westward’s ability to secure needed financing.
40

41 On April 3, 2002 the Office determined that the Summit/Westward ASC was complete. The
42 Office directed Summit/Westward to reassemble the application with all of the supplemental
43 information into a single restated application. Summit/Westward issued the restated application
44 on April 18, 2002. The restated application is the basis for this Order.
45

1 On April 3, 2002, the Office mailed written notice of the filed, restated application to adjacent
2 property owners and persons on the Council’s mailing list. The notice requested public
3 comments on the restated application by May 17, 2002, and announced a public information
4 meeting on the Summit project on April 18, 2002, at Clatskanie High School in Clatskanie,
5 Oregon. In addition to the mailed notices, the Office placed public notice in newspapers serving
6 Clatskanie, Oregon, St. Helens, Oregon, and Longview, Washington.

7
8 Pursuant to OAR 345-015-0200, on April 3, 2002, the Office prepared and delivered to the
9 applicant notice of the filed, restated application and a mailing list of persons, including affected
10 state agencies, tribes, and local governments, to whom the applicant was required to send the
11 notice and filed, restated application for review and comment. The notice requested substantive
12 comments on the restated application from affected state agencies, tribes, and local governments,
13 by May 17, 2002.

14
15 On April 18, 2002, the Office held the public information meeting required by OAR 345-015-
16 0310(16). The Office explained the expedited review process.

17
18 On July 12, 2002, pursuant to OAR 345-015-0310(18), the Council reviewed the draft proposed
19 order at a meeting in St. Helens, Oregon.

20
21 On July 29, 2002, after reviewing the restated application and all comments received from the
22 public, state agencies, tribes, and local governments, the Office issued its proposed order,
23 pursuant to OAR 345-015-0310(19).

24
25 On August 27, 2002, Mr. John W. Burgess, the hearing officer appointed by the Council,
26 conducted a public hearing on the proposed order at the Clatskanie School District 6-J
27 Administration Office in Clatskanie, Oregon, pursuant to ORS 469.373 and OAR 345-015-0320.
28 Pursuant to OAR 345-015-0320(3), the Office presented a description of the proposed facility, a
29 description of the Council standards, including those standards on which the Council may base
30 site certificate conditions, and an explanation of the application process, including the means and
31 opportunities for the general public to participate in the process.

32
33 **B.1. COMMENTS ON APPLICATION**

34 During the public information meeting held in Clatskanie, Oregon, on April 18, 2002, several
35 members of the public asked questions about the review process and notification requirements.
36 There were questions about health effects from electromagnetic fields (“EMF”) associated with
37 transmission lines, as discussed in Section F.1.c of this Order. There were also questions about
38 the impact on local roads, as discussed in Section E.6 of this Order.

39
40 The Office received three letters from the public commenting on the application. One letter was
41 from residents of Washington State living directly across the Columbia River from Port
42 Westward requesting special conditions regarding noise and noise monitoring requirements. A
43 separate letter from the attorney representing the Washington state residents also requested
44 certain noise monitoring requirements. Both letters regarding noise are addressed in the
45 discussion of the applicable noise standards at Section F.1.a of this Order. The remaining

1 comment raised concerns over health effects associated with EMF. Because Summit/Westward
2 has contracted with Portland General Electric (“PGE”) for transmission service, the concerns
3 over EMF are appropriately addressed in the review of the proposed Port Westward Generating
4 Project (the “PWGP”), described below.
5

6 **B.2. COUNCIL REVIEW OF DRAFT PROPOSED ORDER**

7 On July 12, 2002, pursuant to OAR 345-015-0310(18), the Council reviewed the draft proposed
8 order at a meeting in St. Helens, Oregon. At the conclusion of that meeting, the Council
9 instructed the Office to revise two conditions appearing in the draft proposed order prior to
10 issuance of the proposed order. The Council instructed the Office to extend the period of time
11 within which Summit/Westward must begin construction of the facility from 12 months to 24
12 months after the date of the site certificate. And, the Council instructed the Office to extend the
13 period of time within which Summit/Westward must complete construction of the facility from
14 42 months to 54 months after the date of the site certificate.
15

16 In accordance with the Council’s instructions, the Office amended conditions in the proposed
17 order to require Summit/Westward to begin construction of the facility within 24 months after
18 the date of the site certificate and to complete construction of the facility within 54 months after
19 the date of the site certificate.
20

21 **B.3. PUBLIC HEARING ON PROPOSED ORDER**

22 During the public hearing conducted by Mr. John Burgess, the hearing officer, on August 27,
23 2002, several members of the public commented on the proposed order. At the hearing,
24 Summit/Westward requested the opportunity to present additional written evidence and argument
25 in response to public comment, pursuant to ORS 469.373(8). The hearing officer kept the record
26 open, and allowed Summit/Westward until September 6, 2002, to submit additional material.
27 Summit/Westward submitted its additional material on September 6, 2002.
28

29 Comments on the record of the public hearing are addressed below:
30

31 Comments of Westward Energy, LLC

32 Summit/Westward submitted written comments expressing concern about the following six
33 issues addressed in the proposed order:
34

- 35 1. Condition D.7 (4) under the Fish and Wildlife Habitat standard in the proposed order
36 would require Summit/Westward to suspend construction if it could not avoid impacts to
37 raptor nest sites and great blue heron rookeries found within 0.25 mile of the site during
38 the pre-construction wildlife survey. Rather than suspend construction,
39 Summit/Westward committed to completing a mitigation project approved by ODFW
40 that would meet the requirement of the habitat mitigation policy for “no net loss.” This
41 approach would more closely parallel the mitigation proposed by Condition D.7 (6) under
42 the Fish and Wildlife standard.
43

44 Response: The Council finds Summit/Westward’s commitment acceptable and has
45 modified Condition D.7 (4) under the Fish and Wildlife Habitat standard accordingly.

- 1
2 2. Condition D.7 (9) under the Fish and Wildlife Habit standard in the proposed order
3 would require Summit/Westward to mitigate for impacts to 28 acres of Habitat Category
4 3 perennial grassland and Habitat Category 3 tame pastureland by executing a
5 conservation easement protecting 28 acres of in-kind and in-proximity habitat for the life
6 of the facility. Because Summit/Westward reconfigured the facility so that its footprint
7 would affect only 20 acres of Habitat Category 3, the condition should be revised
8 accordingly. Summit/Westward proposed that the condition be reworded to provide that
9 the acreage to be protected by a conservation easement must be in a 1:1 relationship to
10 the acreage permanently disturbed by the facility.

11
12 Response: The Council finds Summit/Westward's commitment acceptable and has
13 modified Condition D.7 (9) under the Fish and Wildlife Habitat standard accordingly.
14

- 15 3. Summit/Westward sought to clarify that while it has control over construction of the on-
16 site transmission line, it does not have control over construction of the off-site
17 transmission lines that were included as related or supporting facilities in the Port
18 Westward Generating Project ASC.

19
20 Response: The Council finds Summit/Westward's interpretation acceptable and has
21 modified the text of this Order accordingly.
22

- 23 4. Summit/Westward sought to clarify that the water delivery system, including the wells
24 and the major share of the water supply pipeline, would be constructed by the Port of St.
25 Helens to serve Summit and other entities locating in the Port Westward Industrial Area.
26

27 Response: The Council finds Summit/Westward's interpretation acceptable, but for the
28 1,000-foot-long related or supporting water supply pipeline that would interconnect
29 Summit with the Port's water supply pipeline, and has modified the text of this Order
30 accordingly.
31

- 32 5. Summit/Westward sought elimination of Condition E.6 (6) under the Public Services
33 standard. That condition requires Summit/Westward to coordinate with Columbia County
34 and other users of the Port Westward Industrial Area on the implementation of a
35 staggered shift schedule if construction of the facility occurs concurrently with
36 construction of other projects in the Port Westward Industrial Area and if Columbia
37 County determines that such action is warranted by traffic conditions.
38

39 Response: The Office has determined that this condition is responsive to concerns
40 expressed by Columbia County about traffic impacts during construction of the Summit
41 Project. Also, the recommendation for staggered shifts came from the traffic consultant's
42 report, which Summit submitted as part of its application. The Council does not find that
43 Condition E.6 (6) under the Public Services standard should be eliminated and has made
44 no changes to this Order in response to this comment.
45

1 6. Summit/Westward sought modification of section D.9, Carbon Dioxide Standard for Base
2 Load Gas Plants, to provide that calculation of the CO₂ offset payment to The Climate
3 Trust be based on expected operating performance rather than guaranteed operating
4 performance.
5

6 Response: Summit/Westward discussed this issue with OOE staff and was advised it
7 would have an opportunity to submit written design information to the Office to verify
8 the heat rate and net power output at the average annual site condition. It was further
9 advised that it would not necessarily be required to rely upon the guaranteed performance
10 numbers contained in the contract with the gas turbine or heat recovery steam generator
11 vendors if it could provide adequate technical documentation to support other expected
12 heat rate and net power output numbers. Summit/Westward correctly concluded that
13 Section D.9 is intended to ensure the monetary path payment amount is based on the gas
14 turbine and heat recovery steam generator contracted for and that the exact performance
15 numbers will be based on affidavits certifying the heat rate and net power output
16 estimates. The Council does not find that the discussion in section D.9, Carbon Dioxide
17 Standard for Base Load Gas Plants, should be modified and has made no changes to this
18 Order in response to this comment.
19

20 Comments of Portland General Electric Company

21 Prior to the public hearing, Portland General Electric Company (“PGE”) submitted written
22 comments proposing the inclusion of four additional conditions in the Summit/Westward site
23 certificate. The Office considered the comments in advance of the public hearing and
24 recommended that the Council adopt the conditions, with minor revisions. In its additional
25 material, Summit/Westward stated that it had no objection to inclusion of the additional
26 conditions, provided they were worded as proposed by the Office. The conditions proposed by
27 PGE are summarized below:
28

29 1. PGE correctly observed that Condition D.3 (2) under the Retirement and Financial
30 Assurance standard in the proposed order did not include the full text of the mandatory
31 condition set forth at OAR 345-027-0020(9).
32

33 Response: The Council finds that Condition D.3 (2) under the Retirement and Financial
34 Assurance standard shall be corrected to include the following requirement: “The
35 certificate holder shall retire the facility if the certificate holder permanently ceases
36 construction or operation of the facility.” In addition, the Council finds that the
37 mandatory condition set forth at OAR 345-027-0020(16) shall be added to this Order as
38 new Condition D.3 (13) under the Retirement and Financial Assurance standard to
39 address action the Council must take in the event it finds that the certificate holder has
40 permanently ceased construction or operation of the facility without retiring the facility
41 according to a final retirement plan approved by the Council.
42

43 2. PGE proposed addition of a condition requiring Summit/Westward to prepare and submit
44 to the Office a materials management and monitoring plan that addresses the handling of
45 potentially hazardous substances during construction and operation of the Summit

1 Project. Because the Spill Prevention Control and Countermeasure Plan does not address
2 all hazardous substances used during construction and operation of a facility, PGE sought
3 this extra measure of protection for PGE facilities in the area.
4

5 Response: The Office found that Summit/Westward had included a detailed list of
6 measures to ensure proper handling of chemicals in its ASC. The Council finds that the
7 Summit/Westward site certificate shall include conditions reflecting commitments made
8 in the ASC, and the Council has incorporated new Conditions D.3 (6) and D.3 (7) under
9 the Retirement and Financial Assurance standard for that purpose.
10

- 11 3. PGE requested addition to the Summit/Westward site certificate of a condition requiring
12 the implementation of dust control measures during construction of the facility. PGE
13 stated that dust would have an adverse impact on operation of the Beaver Power Plant
14 and Beaver Unit 8.
15

16 Response: The Council finds that the Summit/Westward site certificate shall include the
17 requirement to implement dust control measures during construction of the facility, and
18 the Council has incorporated new Condition E.3 (4) under the Scenic and Aesthetic
19 Values standard for this purpose.
20

- 21 4. PGE requested addition to the Summit/Westward site certificate of a condition requiring
22 Summit/Westward to coordinate with Columbia County the improvement and
23 maintenance of signage and striping at the mainline rail crossing on Kallunki Road.
24 Summit/Westward and PGE have both entered into agreements with Columbia County
25 addressing traffic impact issues, and a comparable condition appears in the proposed
26 order for the Port Westward Generating Project. PGE sought some assurance that the
27 provisions of the agreement between Summit/Westward and Columbia County would be
28 binding upon any successor in interest to Summit/Westward.
29

30 Response: The Council finds that the Summit/Westward site certificate shall include a
31 condition requiring Summit/Westward to coordinate with Columbia County the
32 improvement and maintenance of signage and striping at the mainline rail crossing on
33 Kallunki Road, and the Council has adopted new Condition E.6 (7) under the Public
34 Services standard for this purpose.
35

36 Comments on Noise

37 During the public hearing, several persons commented on the noise expected to radiate from the
38 proposed energy facility.
39

40 Otto Moosburner, a Washington resident, said that Condition F.1.a (4) under the Noise section of
41 the proposed order was inadequate on the measurement of noise levels connected with operation
42 of the proposed energy facility. He expressed concern that the actual noise levels may be greater
43 than those permitted by “the regulatory requirements, and the modeling performed.” Gerald
44 Rasmussen, also a Washington resident, expressed a similar concern. Robert Stevens, another
45 Washington resident, described being “rudely” awakened by noise “emanating [from] the

1 existing Beaver Power Plant,” and said he has “found it impossible to hold conversations on our
2 deck and in the house with windows open” because of such noise. Pat Hodges stated that he has
3 not heard the noise about which Mr. Stevens complained. And Diane Pohl, secretary/treasurer of
4 the Chamber of Commerce said that she is willing to accept noise in return for the expected jobs
5 and improvement for the economy connected with the construction of the proposed facility.
6

7 OOE submitted a letter (August 19, 2002) from Kerrie Standlee to Sam Sadler related to noise
8 concerns expressed in connection with construction of the Port Westward Generating Project.
9 Mr. Standlee is the noise consultant retained by the Office to provide technical assistance on
10 noise issues. The Office considered that Mr. Standlee's conclusion on cumulative noise expected
11 from operation of the existing plants in the area, the proposed Summit Project and the proposed
12 Port Westward Generating Project was relevant. Mr. Standlee's conclusion was that there would
13 be "a 3 dB increase in the predicted L₅₀ noise levels during daytime hours." Mr. Standlee stated
14 that an "increase of 3 dB is considered just perceptible to most people"
15

16 Mr. Moosburner and Mr. Rasmussen stressed the importance of verification of the expected
17 noise levels. Mr. Moosburner stated that the "consultant to the [OOE] does not address
18 verification of noise modeling other than to quote expectations of results." Mr. Rasmussen relied
19 upon a letter prepared by his attorney which stated that the "only way to ensure compliance is
20 through monitoring, which will ensure that the design, as constructed and operated, will meet the
21 expectations of prior modeling,"
22

23 Mr. Rasmussen explained that the Office may have misunderstood his position as expressed by
24 his attorney's letter. He is "looking for periodic monitoring," not "continuous monitoring" as the
25 Office described his position in the proposed order. Mr. Moosburner requested "[l]imited
26 continuous monitoring and periodic noise monitoring at select sites."
27

28 Summit/Westward responded to the above comments in its additional material by pointing out
29 that of the existing plants in the area, the proposed Port Westward Generating Project and the
30 proposed Summit Project, the Summit Project would be "the furthest away from the Washington
31 residents."
32

33 Summit/Westward stated that it "continues to have ongoing and continuing communication with
34 the Washington residents outside of the EFSC process to address their concerns about noise and
35 visual impacts to the extent reasonably possible."
36

37 In addition, there were suggested revisions to the conditions on noise.
38

39 Mr. Moosburner requested that the Office "consider strengthening" Condition F.1.a (4)(d) under
40 the noise section of the proposed order. That condition requires Summit/Westward to take
41 actions necessary to comply with DEQ regulations "as soon as practicable" in the event that
42 actual noise levels are not in compliance. Mr. Moosburner stated that "'[p]racticable,' without
43 further definition, provides no incentive to correct the situation."
44

1 Mr. Stevens suggested changes to Condition F.1.a (3) under the noise section of the proposed
2 order. That condition requires Summit/Westward to establish a complaint response system
3 "[d]uring construction" at the construction manager's office to address noise complaints. Mr.
4 Stevens suggested that the complaint response system also be established "during operation" and
5 that the system include the requirement to "report actions to the EFSC Office."
6

7 Mr. Stevens further suggested that Condition F.1.a (5) under the noise section of the proposed
8 order be revised. That condition requires the installation of silencers on short-duration noise
9 sources. Mr. Stevens suggested that the condition require installation of the "best acoustically
10 engineered silencers available." In its additional material, Summit/Westward responded to Mr.
11 Stevens' suggestion. Summit/Westward "believes this [current condition] is adequate to address
12 the concern" over short-duration noise sources. Summit/Westward opposed the suggestion "on
13 the basis that there is no standard or consensus" regarding the "best acoustically engineered
14 silencers available."
15

16 Both Mr. Moosburner and Mr. Rasmussen requested that the conditions on noise add the
17 requirement of furnishing copies of noise monitoring reports to them and other interested
18 persons.
19

20 Response: Modeling performed by Summit/Westward and analyzed by the Office show
21 that noise produced by operation of the Summit Project would not exceed levels
22 established for sensitive noise receptors under either the Oregon DEQ noise regulations
23 or the Washington noise regulations. In fact, OOE's noise consultant concluded that noise
24 at even the nearest Washington residence would not increase by more than 3 dBA during
25 combined operation of the existing plants in the area, the Summit Project and the
26 proposed Port Westward Generating Project. The Oregon DEQ regulations would allow
27 for a 10 dBA increase from operation of any one of these noise sources.
28

29 To confirm that actual noise levels are within the levels specified in the applicable noise
30 regulations, the proposed order includes Condition F.1.a (4) requiring Summit/Westward
31 to retain a qualified noise specialist to measure noise levels associated with operation of
32 the energy facility at the nearest residences when the energy facility is operating in a
33 maximum noise mode. The condition requires the noise specialist to take these
34 measurements during late-night hours when ambient noise levels are lowest and weather
35 conditions are generally best for sound propagation in the environment. The condition
36 was written with the objective of requiring Summit/Westward to measure noise produced
37 by the energy facility under the conditions most likely to produce a result adverse to its
38 interests. If noise produced under these conditions meets the applicable standards, then
39 noise produced under any other conditions should do the same.
40

41 The Office conferred with its noise consultant with respect to Mr. Stevens' suggestion
42 that Condition F.1.a (5) requiring Summit/Westward to install silencers on short-duration
43 noise sources should be strengthened to require the use of "best acoustically engineered
44 silencers available." While there appears to be no standard and little consensus on what
45 constitutes "best acoustically engineered silencers available," it is possible to strengthen

1 the condition by requiring Summit/Westward to install on short duration noise sources
2 silencers that have a sufficient amount of insertion loss to ensure the DEQ noise standard
3 is met when those sources are operated intentionally. Venting that occurs under
4 emergency circumstances, *e.g.*, when the energy facility is tripped offline, is exempt from
5 the DEQ noise standards under OAR 345-035-0035(5)(a). However, venting under the
6 control of the operator, *e.g.*, venting during plant testing, startup, and shutdown, must
7 meet the DEQ noise standards.
8

9 The Council finds that the Summit/Westward site certificate shall include a condition
10 requiring Summit/Westward to install on short duration noise sources silencers that have
11 a sufficient amount of insertion loss to ensure that the DEQ noise regulation is met when
12 those sources are operated intentionally. The Council has modified Condition F.1.a (5) in
13 this Order accordingly.
14

15 Comments of Port of St. Helens

16 Paul Langner made comments on behalf of the Port of St. Helens. He explained that the area of
17 the proposed Project has been in industrial use since about 1935, and that the Port has owned the
18 property since 1965. First, Mr. Langner expressed appreciation for Summit/Westward's
19 cooperation in dealing with the Port.
20

21 Mr. Langner also requested that at the time of retirement of the proposed facility
22 Summit/Westward consult with the Port, because the Port may have an interest in the
23 improvements on the site for further industrial use.
24

25 In its additional material, Summit/Westward stated that it supports the Port's position.
26 Summit/Westward proposed the following change (in italics) to Condition (1) under the
27 Financial Assurance and Retirement standard of the proposed order:
28

- 29 (1) Two years before closure of the energy facility *and following consultation*
30 *with the Port of St. Helens or other future owners of the Project site*, the
31 certificate holder shall submit to the Office a proposed final retirement
32 plan * * *.
33

34 Response: The Council finds Summit/Westward's commitment acceptable and has
35 modified Condition D.3 (1) under the Retirement and Financial Assurance standard
36 accordingly.
37

38 Comments on Pipeline

39 Before the hearing, William and Doris Dragich submitted a letter in which they expressed
40 concern related to the Northwest Natural Gas pipeline that crosses their property. They are
41 concerned about the safety implications of an increase in pressure in the natural gas pipeline
42 from Ostrander to Beaver.
43

44 Mike Seely also expressed concern that the pipeline in the area of his house in the vicinity of
45 Hermo Road is not buried to a proper depth and is creating a safety hazard.

1
2 In its additional material, Summit/Westward responded to Mr. Seely's concern and stated that
3 location of the pipeline and its depth "is a matter to be addressed by Northwest Natural" and
4 local property owners, "and is not an issue that is affected by the Project or Project-related
5 traffic." Summit/Westward further stated that at the time that "the Hermo Road reconstruction
6 proceeds, the county should be asked to ensure that the pipeline is buried to the proper depth as
7 an element of road improvement design."
8

9 Response: The Council finds that the subject pipeline is an interstate pipeline, under
10 federal jurisdiction. Also, the subject pipeline is already in operation, and is therefore not
11 a related or supporting facility. For these reasons, the Council has added no new
12 conditions to this Order in response to the foregoing comments.
13

14 Comments on Height of Structures

15 Before the hearing, the Oregon Department of Aviation (ODA) submitted a letter related to the
16 height of certain structures, "such as smoke or cooling stacks and power lines." ODA stated that
17 the structures "will have an [effect] on the National Airspace System," and therefore
18 Summit/Westward "must complete the FAA Form 7460-1, 'Notice of Proposed Construction or
19 Alteration' at least 30 days prior to a construction permit being filed."
20

21 Response: The Council finds that the FAA Form 7460-1, Notice of Proposed
22 Construction or Alteration, is a federal permit over which it has not jurisdiction and has
23 added no new conditions to this Order in response to the foregoing comment.
24

25 Comments on Screening of Tall Structures

26 Mr. Stevens also commented on the height of certain structures. Mr. Stevens wanted screening of
27 the taller structures, and not just the lower parts of the structures. He suggested that Condition
28 E.3 (3) under the Scenic and Aesthetic Values standard be revised to remove the word "shrubs"
29 so that the condition required only trees to screen structures.
30

31 In its additional material, Summit/Westward responded to Mr. Stevens' comments.
32 Summit/Westward stated that it "should not be required to shield" the taller structures from view.
33 It stated that there was no such requirement in the standard at OAR 345-022-0080.
34 Summit/Westward further pointed out that "Columbia County is the entity that must review and
35 approve the landscape plan, and there is no basis for overly constraining the County or the
36 Project with revisions to this condition."
37

38 Response: The Council finds that the landscaping plan subject to review and approval by
39 Columbia County may address the issue of shielding tall structures from view and has
40 added no new conditions to this Order in response to the foregoing comment.
41

42 Comments on Hermo Road

43 At the hearing, Mr. Seely expressed concern over traffic on Hermo Road related to the proposed
44 Project. Mr. Seely was concerned over the number and weight of vehicles that may be using
45 Hermo Road, as well as the speed of the vehicles. He questioned whether Summit/Westward's

1 traffic study was accurate on the ground that the study may not have taken into consideration that
2 slow and wide farm and harvesting equipment travel the road during certain times of the year.
3

4 In its additional material, Summit/Westward responded to Mr. Seely's concerns by stating it
5 relied upon the transportation impact analysis prepared by Kittelson & Associates. The
6 transportation impact analysis showed that "no Project-related vehicular trips are assigned or
7 planned on Hermo Road."
8

9 Summit/Westward acknowledged that its application states that Hermo Road "in the future may
10 serve as the primary access route to Port Westward." But, Summit/Westward stated that the
11 "County would only designate Hermo Road as the primary access to Port Westward if the road is
12 improved to an acceptable standard."
13

14 County Commissioner Tony Hyde indicated that Hermo Road is not currently in adequate
15 condition to support traffic to Port Westward. He further stated vehicles will not make use of
16 Hermo Road in construction of the proposed Project and that the improvement of Hermo Road is
17 a part of the Port Westward Urban Renewal Plan.
18

19 Mr. Seely stated that he did not believe that the County has designated sufficient money for road
20 improvement. And, Paul Courtney, who also resides in the area, stated that County road
21 improvement is questionable.
22

23 Summit/Westward pointed out that because construction of the proposed facility will be
24 completed before the improvement of Hermo Road, "only the Project's operational traffic
25 would be routed to" Hermo Road after its improvement. Summit/Westward stated that the
26 estimated operational traffic is "46 one-way vehicle trips per day, 40 of which will be passenger
27 vehicle trips and six of which will be truck trips."
28

29 Response: The Council finds that no project-related vehicular trips are planned on
30 Hermo Road during construction and operation of the Summit Project, and the Council
31 has not changed findings contained in this Order in response to the foregoing comments.
32

33 Comments on Road Safety

34 In its additional material, Summit/Westward stated that it has entered into a Transportation
35 Improvement Contribution Agreement with the County and that pursuant to the Agreement
36 Summit/Westward "will contribute in excess of \$250,000 to address roadway improvements in
37 the Port Westward area."
38

39 Summit/Westward stated that it "has suggested that it work with the County to establish a Traffic
40 Control Plan" to mitigate the short-term impacts connected with construction (*e. g.*, direction and
41 warning signs, speed zones, shuttle bus services for workers and employees).
42

43 Summit/Westward pointed out that the Columbia County Board of Commissioners, in a letter to
44 OOE, stated that "adequate transportation facilities and services will exist concurrent with
45 development of the" proposed Summit Project and that Summit/Westward's application is

1 "timely, considering the adequacy of existing or planned transportation systems in the Port
2 Westward Clatskanie area."
3

4 Response: The Council finds that Summit/Westward has consulted with the Columbia
5 County Board of Commissioners to address traffic impacts during construction and
6 operation of the Summit Project. Conditions adopted by the Council under the Public
7 Services standard of this Order encapsulate agreements reached between
8 Summit/Westward and the County. The Council has not changed findings contained in
9 this Order in response to the foregoing comments.
10

11 Comments on Eagle Nest

12 Mr. Seely also stated that he observed an eagle nest being built about one mile from the site of
13 the proposed Project.
14

15 In its additional material, Summit/Westward indicated that Mr. Seely's comments were not
16 relevant because the nest was located outside the 0.25-mile analysis area for raptor nesting sites
17 in the proposed order and "not otherwise relevant" to the standards on Fish and Wildlife Habitat
18 and Threatened and Endangered Species.
19

20 In the Hearing Officer's Summary of Evidence, Mr. Burgess showed that Mr. Seely's comments
21 are relevant because the Fish and Wildlife Habitat standard requires that "the design,
22 construction, operation and retirement of the facility, taking into account mitigation, are
23 consistent with the fish and wildlife habitat mitigation goals and standards of OAR
24 635-415-0025", as administered by ODFW. Accordingly, if an eagle's nest located more than
25 0.25 mile from the site, or more than one-half mile from the site by direct line of sight, could be
26 adversely affected by design, construction, operation and retirement of the facility, then the
27 eagle's nest might be deserving of special protection.
28

29 Response: It was only after consultation with ODFW in the course of preparing the
30 Project Order for the Summit Project that the Office defined analysis areas to be
31 addressed under the Fish and Wildlife Habitat and Threatened and Endangered Species
32 standards. On the advice of ODFW, the Office defined the analysis area for great blue
33 heron rookeries and raptor nesting sites, including peregrine falcon, osprey, and bald
34 eagle nesting sites, at a minimum, as the area within 0.25 mile on either side of any
35 proposed corridor alignment, the energy facility site, and the temporary construction
36 zone, and one-half mile for bald eagle nests within direct line of sight. Summit/Westward
37 addressed these analysis areas in its ASC and, in accordance with Condition D.7 (4), will
38 conduct wildlife surveys within 0.25 mile of the site before beginning construction of the
39 facility.
40

41 The Council finds that the Fish and Wildlife Habitat and Threatened and Endangered
42 Species standards have been properly addressed in this Order, and the Council has not
43 changed findings contained in this Order in response to the foregoing comments.
44

1 Comments on Evaporation Technology

2 Mr. Seely, who is an electrical engineer, commented that the evaporation process to be utilized
3 by the proposed Project was not a proven technology.

4
5 In its additional material, Summit/Westward disagreed. Summit/Westward stated that the "zero
6 liquid discharge system," described in its application, is proven technology, and "will provide a
7 reliable method for addressing wastewater disposal."
8

9 Summit/Westward further explained that in the event that "the system is required to go offline
10 for maintenance or other reasons" there are protective measures which include "back-up waste-
11 water ponds" and the "shutdown" of the proposed Summit Project "until either the system is back
12 in operation or the ponds gain additional capacity."
13

14 Summit/Westward also stated that the Project "as currently proposed" would not discharge
15 wastewater to the Columbia River." Summit/Westward recognized that the Port of St. Helens is
16 interested in obtaining a permit that would allow discharge to the river. Summit/Westward stated
17 that if the Port were to obtain a permit and the authorization for discharge to the river were to
18 become available to the proposed Project, it would "approach the Council and seek to amend its
19 Site Certificate at that time."
20

21 Response: The Council finds that Summit/Westward has designed the facility to
22 incorporate a zero liquid discharge system, has added wastewater ponds to capture water
23 discharges in the event the zero liquid discharge system malfunctions, and has agreed to
24 suspend plant operations if discharges threaten to cause the wastewater ponds to
25 overflow. The Council has not changed its findings in this Order in response to the
26 foregoing comments.
27

28 Comments on Local Effect

29 Several persons made comments on the expected effects of the proposed Project on the local
30 area.
31

32 For example, Gil Hayes expected that the proposed Project will provide the opportunity for work
33 both during construction and afterwards. Kirk Deal felt that the hiring of local people would
34 benefit the economy of the area and help reduce the high unemployment in the area.
35

36 Columbia County supports the proposed project for the same reasons. State Representative Betsy
37 Johnson gave her unqualified support to the proposed Project because of the expected benefits to
38 the job market and the economy in the area as a result of construction of the Project and because
39 of the integrity of Mr. Wilcox.
40

41 Mr. Wilcox stated that as much as possible local people would be employed by the proposed
42 Project, and that he considered the local workers to be a good work force and underemployed.
43 But Mr. Courtney was not certain that the skill level of persons in the area would allow their
44 employment by the proposed Project.
45

1 Response: The Council has not changed its findings in this Order in response to the
2 foregoing comments.
3

4 **B.4. COUNCIL ACTION ON ASC**

5 The Council took final action on the ASC at its regular meeting in St. Helens, Oregon, on
6 October 3, 2002.
7

8 **C. GENERAL FINDINGS**
9

10 **C.1. DESCRIPTION OF THE PROPOSED FACILITY**
11

12 **C.1.a. The Energy Facility**

13 **Major Structures and Equipment.** The Summit Project would consist of two Siemens
14 Westinghouse F-Class 170-MW combustion turbine generators (“CTG”), two heat recovery
15 steam generators (“HRSG”) with duct burners, one Siemens Westinghouse 180-MW steam
16 turbine generator (“STG”), a de-aereating surface condenser, a bank of mechanical draft wet
17 cooling towers, and supporting equipment. The exhaust gas from each CTG would be routed to a
18 triple-pressure HRSG to generate steam for the STG. Each CTG would have its own HRSG.
19 Duct firing would be provided in the HRSGs and would be used to supplement steam generation
20 capacity during conditions under which exhaust energy from the CTGs declines. Steam from the
21 HRSGs would be directed to a condensing STG that will produce approximately 180 MW. The
22 CTGs, HRSGs, and STG would be housed within a turbine hall.
23

24 The Summit Project would achieve zero discharge of process wastewater by installing a brine
25 crystallizer system on the energy facility site. This system would treat concentrated brine from
26 the circulating water treatment plant. This treatment plant would be an advanced system,
27 designed to recover essentially all water for reuse and to direct the waste stream to the brine
28 crystallizer for treatment. The concentrated brine would have high concentrations of total solids
29 and other nonhazardous constituents. The typical flow rate would be about 385 gallons per
30 minute. Concentrated brine solids would be shipped to a regulated landfill site for disposal.
31

32 Two storage ponds would be constructed on the energy facility site to provide for temporary
33 storage of wastewater in the event the brine crystallizer were to become inoperative. One pond
34 would be about 2.71 acres; the other would be about 0.9 acres. The ponds would be constructed
35 with double liners to protect against seepage of wastewater. When the brine crystallizer is
36 operational, any wastewater stored in these ponds would be recirculated back to the brine
37 crystallizer system for treatment. Summit/Westward does not plan to use the storage ponds for
38 long-term storage of concentrated brine.
39

40 The Summit Project must comply with air emissions standards that are administered by DEQ
41 under a delegation from the U.S. Environmental Protection Agency.
42

43 Fuel for the plant would be natural gas, delivered to the site via interconnection with the existing
44 Kelso-Beaver Pipeline, a 20-inch natural-gas pipeline located about one-half mile west of the

1 Project site (the “K-B Pipeline”). The K-B Pipeline is connected to the Williams interstate
2 pipeline in Washington.

3
4 The Summit Project would interconnect with the transmission grid at the Bonneville Power
5 Administration (“BPA”) Allston Substation, located about 10 miles south of the Summit Project
6 site, by means of 230-kilovolt (“KV”) transmission line to be erected by PGE after approval of
7 the site certificate for the PWGP.

8
9 The generating plant and related or supporting facilities would occupy about 20 acres of a 53-
10 acre site.

11
12 **Output.** The Summit Project would have a net electric power output of about 518 MW at
13 average annual site conditions of 50.9 degrees Fahrenheit, 1,017 millibars barometric pressure,
14 and 78 percent relative humidity. The new and clean heat rate would be about 6,869 British
15 thermal units per kilowatt-hour (“Btu/kWh”) (higher heating value).

16
17 During summer months, plant output from the base load facility would decrease because the
18 equipment is less efficient at higher temperatures. During these months the Project would use
19 duct firing to bring net electric output closer to the energy facility’s rated capacity. However, the
20 Office does not consider this to be “power augmentation” as that term is defined in Council rules
21 under OAR chapter 345, division 24, because the duct firing would not result in the production
22 of extra power in excess of the plant’s nominal capacity.

23
24 **Fuel Use.** The Summit Project would use natural gas as the only fuel to power the turbines and
25 the power augmentation technologies. It would use about 3,558 million British thermal units
26 (“MMBtu”) per hour of natural gas at full load without the duct burners in operation at annual
27 average site conditions of 50.9 degrees Fahrenheit, 1,017 millibars barometric pressure, and 78
28 percent relative humidity.

29
30 **Water Use.** The Summit Project would obtain water to generate steam from the Port of St.
31 Helens (the “Port”) under existing Oregon Water Right Permit No. 53677. The Port has a water
32 right permit from the State of Oregon allowing it to use up to 30 cubic feet per second (“cfs”) of
33 Columbia River water to supply commercial and industrial users in the Port’s service area.

34
35 Summit/Westward would contract with the Port for up to 7 cfs of the Port’s total water right for
36 use by the Summit Project. PGE would contract with the Port for up to 8.3 cfs of the Port’s total
37 water right for use by the proposed PWGP to be located adjacent to the Summit Project.

38
39 Water would be delivered to the Summit Project from Ranney® collector wells that would be
40 drilled on Port property near the mouth of Bradbury Slough, where it connects with the
41 Columbia River. Water would be pumped through the Ranney collector wells from about 60 feet
42 below the bed of the Columbia River and would be accounted for as part of the Port’s existing
43 surface water right.

1 Average water demand would be about 2,223 gallons per minute (“gpm”), or 3.20 million
2 gallons per day. Peak water demand would be about 2,357 gpm, or 3.39 million gallons per day
3 for most conditions.

4
5 **C.1.b. Related or Supporting Facilities**

6 The Summit Project would include the following related or supporting facilities:
7

8 **Natural-Gas Pipeline.** The Summit Project would be fueled solely by natural gas obtained from
9 the K-B Pipeline. Connection to the K-B Pipeline would be by means of a buried pipeline
10 approximately 16 inches in diameter. The natural-gas pipeline would be located in existing
11 roadways. The proposed right-of-way for the natural-gas pipeline is about 5,100 feet long and 25
12 feet wide, or 12.5 feet on each side of the pipeline and roughly equivalent to the width of the
13 existing roadways. All ground disturbance activities in connection with construction of the
14 natural-gas pipeline would be limited to the ground area occupied by the existing roadways. The
15 ground area that would be disturbed during pipeline construction would be 10 feet wide,
16 including five feet of trench and five feet of trench spoil pile. The pads required for directional
17 drilling that would occur north of the energy facility would measure about 20 feet by 20 feet and
18 would be located in the existing roadways.
19

20 **Water Supply Pipeline.** Water for operation of the Summit Project would be obtained from
21 wells located northwest of the energy facility under an existing water right held by the Port.
22 Connection to the wells would be by means of a buried pipeline 16 to 20 inches in diameter. The
23 Port would install a water supply pipeline about 7,500 feet long and 25 feet wide almost
24 exclusively in existing roadways. The related or supporting water supply pipeline would
25 interconnect with the Port’s water supply pipeline, would be about 1,000 feet long and 25 feet
26 wide, and would be installed in an existing roadway. The proposed right-of-way for the entire
27 water supply pipeline is about 8,500 feet long and 25 feet wide, or 12.5 feet on each side of the
28 pipeline and roughly equivalent to the width of the existing roadways.
29

30 All ground disturbance activities in connection with construction of the water supply pipeline,
31 including those portions of the pipeline to be constructed by the Port, would be limited to the
32 ground area occupied by the existing roadways, except for a small portion (about 600 feet) of the
33 pipeline that extends from the well sites to the roadway. The ground area that would be disturbed
34 during pipeline construction would be 10 feet wide, including 5 feet of trench and 5 feet of
35 trench spoil pile. The pads required for horizontal directional drilling that would occur north of
36 the energy facility would measure about 20 feet by 20 feet and would be located in the existing
37 roadways.
38

39 **Electric Transmission Line.** The Summit Project would deliver electric power to the regional
40 grid at the BPA Allston Substation by interconnecting with a 230-kV transmission line to be
41 erected by PGE after issuance of an approved site certificate for the PWGP. PGE would install a
42 230-kV circuit that terminates on a “dead-end” structure on the Summit Project site.
43 Summit/Westward would construct a single-circuit 230-kV transmission line, about 1,000 feet
44 long, entirely on the 53-acre parcel it has leased from the Port, to establish a connection between
45 the energy facility collector yard and the PGE “dead-end” structure (the “Summit/Westward on-

1 site electrical transmission line”). This transmission line would be located entirely on the Summit
2 Project site and would require no off-site right-of-way. Conditions contained in this Order with
3 respect to the transmission line apply only to the Summit/Westward on-site electrical
4 transmission line.

5
6 The interrelationship between the Summit Project and the PWGP presents a unique situation
7 regarding transmission lines to serve both energy facilities. The two energy facilities would be
8 located close to each other and would use the same transmission corridor and towers of the BPA
9 Allston Substation. The lines would be double-circuited, with the Summit Project on one side
10 and the PWGP on the other side.

11
12 Portland General Electric Transmission Group (“PGE/T”) would build the transmission lines for
13 either or both energy facilities, depending on what is eventually constructed. The transmission
14 line for each project would be a related or supporting facility for that project and, therefore, must
15 meet Council standards.

16
17 As a related or supporting facility for which PGE will provide permitting and construction
18 services, the site certificate for Summit/Westward’s transmission line is a “third-party permit.”
19 In this case the permit is the PWGP site certificate. Our findings and recommendations are
20 therefore part of the discussion of the EFSC Organizational Expertise Standard, OAR 345-022-
21 0010(3), located at Section D.2.c of this Order.

22 23 **C.2. LOCATION OF THE PROPOSED FACILITY**

24 25 **C.2.a. The Energy Facility Site**

26 The Summit Project site would be located at Port Westward on property owned by the Port. It is
27 contained within the Port’s service boundaries. The site is located in Sections 15 and 22,
28 Township 8 North, Range 4 West, Willamette Meridian, Columbia County, Oregon. It is about
29 4.5 miles north of the town of Clatskanie, Oregon and 0.25 miles south of the Columbia River.

30
31 The parcel to be leased from the Port includes up to 53 acres, about 20 acres of which would be
32 occupied by the Summit Project and switchyard. The Summit Project site is essentially flat, with
33 an average elevation of approximately 25 feet above mean sea level.

34 35 **C.2.b. Related or Supporting Facility Sites**

36 The Summit Project would include corridors for the following related or supporting facilities:

37
38 **Natural Gas Pipeline Corridor.** The proposed natural-gas pipeline would be 16 inches in
39 diameter and would interconnect with the existing K-B Pipeline near the existing PGE Beaver
40 Generating Plant. The natural-gas pipeline would be located in a 25-foot right-of-way about
41 5,100 feet long in existing roadways in Sections 15 and 22, Township 8 North, Range 4 West,
42 Willamette Meridian, Columbia County, Oregon. The natural-gas pipeline corridor would
43 occupy an area of about three acres.

1 **Water Supply Pipeline Corridor.** The proposed water supply pipeline would supply raw water
2 to the energy facility from wells to be installed by the Port in Section 15, Township 8 North,
3 Range 4 West, Willamette Meridian, Columbia County, Oregon. The Port would install a water
4 supply pipeline about 7,500 feet long from the wells to the point of interconnection with the
5 related or supporting water supply pipeline serving the Summit Project. The related or supporting
6 water supply pipeline would be located in a 25-foot right-of-way about 1,000 feet long in an
7 existing roadway in Section 22, Township 8 North, Range 4 West, Willamette Meridian,
8 Columbia County, Oregon. The water supply pipeline corridor would occupy an area of about
9 one-half acre.

10
11 **Transmission Line Corridor.** The proposed transmission line would interconnect with a “dead-
12 end” structure to be erected on the Summit Project site about 1,000 feet east of the Summit
13 Project collector yard. The transmission line would be located in Section 22, Township 8 North,
14 Range 4 West, Willamette Meridian, Columbia County, Oregon, and would require no off-site
15 right-of-way. Conditions contained in this Order with respect to the transmission line apply only
16 to the Summit/Westward on-site electrical transmission line.

17
18 **D. EXPEDITED REVIEW SITING STANDARDS: DISCUSSION AND CONCLUSIONS**

19
20 **D.1. INTRODUCTION: GENERAL STANDARD OF REVIEW**

21 Under Oregon law, in order to issue a site certificate under the expedited process, EFSC
22 must determine that the preponderance of the evidence in the record supports the following
23 conclusions:

- 24
25 1. The facility complies with the standards adopted by the Council pursuant to ORS
26 469.501 (1)(a), (c), (d), (e), (g), (h), (l), (m), (n) and (o) or the overall public
27 benefits of the facility outweigh the damage to the resources protected by the
28 standards the facility does not meet.
- 29
30 2. The energy facility complies with any applicable carbon dioxide emissions
31 standard adopted by the Council or enacted by statute.
- 32
33 3. Except as provided in ORS 469.504 for land use compliance and except for those
34 statutes and rules for which the decision on compliance has been delegated by the
35 federal government to a state agency other than the Council, the facility complies
36 with all other Oregon statutes and administrative rules identified in the project
37 order, as amended, as applicable to the issuance of a site certificate for the
38 proposed facility. If compliance with applicable Oregon statutes and
39 administrative rules, other than those involving federally delegated programs,
40 would result in conflicting conditions in the site certificate, the Council may
41 resolve the conflict consistent with the public interest. A resolution may not result
42 in the waiver of any applicable state statute.
- 43
44 4. The facility complies with the statewide planning goals adopted by the Land
45 Conservation and Development Commission. ORS 469.503.

1
2 Under ORS 469.373, certain EFSC standards at OAR chapter 345, division 22 do not apply to
3 facilities that qualify for expedited review. The Council may impose conditions based on these
4 standards but may not deny a site certificate based on them. The EFSC standards that continue to
5 fully apply to the Summit Project are:

6		
7	OAR 345-022-0010	Organizational Expertise
8	OAR 345-022-0022	Soil Protection
9	OAR 345-022-0030	Land Use
10	OAR 345-022-0040	Protected Areas
11	OAR 345-022-0050	Retirement and Financial Assurance
12	OAR 345-022-0060	Fish and Wildlife Habitat
13	OAR 345-022-0070	Threatened and Endangered Species
14	OAR chapter 345, division 24	Carbon Dioxide and Applicable Safety Standards

15
16 These standards are discussed below, in Section D of this Order. Standards that do not apply to
17 the Summit Project, but for which the Council may still adopt conditions under ORS 469.373,
18 are discussed in section E of this Order.

19
20 **D.2. ORGANIZATIONAL EXPERTISE, OAR 345-022-0010**

21 This standard has four paragraphs. Two, OAR 345-022-0010(1) and OAR 345-
22 022-0010(2), relate to Summit/Westward's qualification and capability, and two,
23 OAR 345-022-0010(3) and OAR 345-022-0010(4), relate to third-party permits.

24
25 **D.2.a. Applicant Qualification and Capability, OAR 345-022-0010(1)**

26
27 "To issue a site certificate, the Council must find that the applicant has the
28 organizational expertise to construct, operate and retire the proposed facility in
29 compliance with Council standards and conditions of the site certificate. To
30 conclude that the applicant has this expertise, the Council must find that the
31 applicant has demonstrated the ability to design, construct and operate the
32 proposed facility in compliance with site certificate conditions and in a manner
33 that protects public health and safety and has demonstrated the ability to restore
34 the site to a useful, non-hazardous condition. The Council may consider the
35 applicant's experience, the applicant's access to technical expertise and the
36 applicant's past performance in constructing, operating and retiring other
37 facilities, including, but not limited to, the number and severity of regulatory
38 citations issued to the applicant."
39

40 **Discussion**

41 Summit/Westward is a limited liability company organized under the laws of the State of
42 Oregon, wholly owned by NED. NED is a limited liability company organized under the laws of
43 the State of Oregon. Brett E. Wilcox, a resident of Portland, Oregon, owns 100 percent of the
44 ownership interests in NED.
45

1 Summit/Westward does not claim it has organizational expertise to construct and operate the
2 Summit Project. Instead, it has contracted with, and will have access to the experience and
3 expertise of, Summit Power NW, LLC (“Summit Power”) for development of the Summit
4 Project.

5
6 Summit Power has extensive experience in the development of modern natural-gas-fired electric
7 generating projects. Summit Power is responsible for leading the development of more than 14
8 natural-gas-fired electric generating projects capable of producing nearly 7,000 MW,
9 approximately one-third of which are now in commercial operation. It has received no regulatory
10 citations in connection with the construction or operation of any of these facilities. Included
11 among generating projects developed by Summit Power are:

- 12
- 13 • Bridgeport Energy Project, Connecticut. 520-MW combined-cycle generating
14 project using Siemens Westinghouse equipment, now in commercial operation.
- 15 • St. Francis No. 1, Missouri. 260-MW combined-cycle generating project using
16 Siemens Westinghouse equipment, now in commercial operation.
- 17 • Chouteau Project, Oklahoma. 520-MW combined-cycle generating project using
18 Siemens Westinghouse equipment, now in commercial operation.
- 19 • Griffith Energy, Arizona. 600-MW combined-cycle generating project using
20 Siemens Westinghouse equipment, now in commercial operation.

21
22 Summit/Westward intends to enter into a turnkey Engineering, Procurement, and Construction
23 (“EPC”) Contract with Siemens Westinghouse for the supply of engineering, materials, and
24 construction for the Summit Project. Summit Power engaged Siemens Westinghouse as the EPC
25 contractor for most, if not all, of its natural-gas-fired electric generating projects.

26
27 Summit/Westward intends to enter into a turnkey Operations and Maintenance Contract with
28 Siemens Westinghouse for continuing operation and maintenance of the Summit Project.
29 Siemens Westinghouse currently provides these services to approximately 30 combined-cycle
30 power plants throughout the world.

31
32 Because the application describes mitigation that is needed to support findings of compliance
33 with certain environmental standards and regulations, Summit/Westward has contracted with and
34 will rely on the expertise of Greystone Environmental Consultants, Inc. (“Greystone”), and
35 Foothills Associates Environmental Consultants to implement mitigation plans. Resumes of the
36 individuals who will be responsible for implementing the mitigation plans appear at Exhibit D-3
37 of the ASC and indicate that each of the responsible individuals has at least 10 years’ experience
38 in environmental permitting and mitigation design. These are the same consultants who drafted
39 the mitigation plans that form the basis for recommended findings of compliance with the
40 Council’s Fish and Wildlife Habitat standard and with the Division of State Lands (“DSL”) wetland permitting requirements.

41
42
43 The Council adopts the following conditions in the site certificate:
44

- 1 **(1) Before beginning construction of the energy facility, the certificate holder**
2 **shall deliver to the Office an affidavit signed by an officer of the certificate**
3 **holder stating that it has entered into an EPC agreement with Siemens**
4 **Westinghouse providing for construction of the energy facility by Siemens**
5 **Westinghouse.**
6
7 **(2) Before beginning construction of the energy facility, the certificate holder**
8 **shall deliver to the Office an affidavit signed by an officer of the certificate**
9 **holder stating that it has entered into an operation and maintenance**
10 **(“O&M”) agreement with Siemens Westinghouse, providing for operation**
11 **and maintenance of the energy facility by Siemens Westinghouse.**
12
13 **(3) If the certificate holder chooses a contractor other than Siemens**
14 **Westinghouse to operate or maintain the energy facility, the certificate**
15 **holder shall submit the identity of the contractor so the Council may review**
16 **the qualifications and capability of the contractor under OAR 345-022-0010.**
17 **If the new contractor meets these standards, the Council shall not require an**
18 **amendment to the site certificate for the certificate holder to install the**
19 **contractor.**
20
21 **(4) Any matter of noncompliance under this site certificate shall be the**
22 **responsibility of the certificate holder. Any notice of violation issued will be**
23 **issued to the certificate holder. Any civil penalties levied shall be levied on**
24 **the certificate holder.**
25
26 **(5) The certificate holder shall contractually require the EPC contractor and all**
27 **independent contractors and subcontractors involved in the construction and**
28 **operation of the Project to comply with all applicable laws and regulations**
29 **and with the terms and conditions of the site certificate. Such contractual**
30 **provision shall not operate to relieve the certificate holder of responsibility**
31 **under the site certificate.**
32
33 **(6) The certificate holder shall obtain all necessary state and local permits or**
34 **approvals required for the construction, operation, and retirement of the**
35 **facility.**
36

37 The Council finds Summit/Westward has demonstrated it has access to technical expertise in
38 constructing, operating, and retiring other facilities, and, accordingly, Summit/Westward has
39 demonstrated the ability to design, construct, and operate the proposed facility in compliance
40 with Council standards and conditions of the site certificate.
41

42 **Conclusion**

43 The Council finds that Summit/Westward meets the requirements of OAR 345-022-0010(1).
44

1 **D.2.b. Applicant Qualification and Capability: ISO Programs, OAR 345-022-0010(2)**

2
3 “The Council may base its findings under section (1) on a rebuttable presumption
4 that an applicant has organizational, managerial and technical expertise, if the
5 applicant has an ISO 9000 or ISO 14000 certified program and proposes to
6 design, construct and operate the facility according to that program.”
7

8 **Discussion**

9 OAR 345-022-0010(2) establishes a rebuttable presumption of organizational, managerial, and
10 technical expertise if an applicant has an ISO 9000 or ISO 14000 certified program and proposes
11 to design, construct and operate the energy facility according to that program. Summit/Westward
12 did not submit evidence of ISO certification for this energy facility.
13

14 **Conclusion**

15 The Council finds that Summit/Westward has not requested a rebuttable presumption of
16 expertise pursuant to OAR 345-022-0010(2).
17

18 **D.2.c. Third-Party Services and Permits: Contracts, OAR 345-022-0010(3)**

19
20 “If the applicant does not itself obtain a state or local government permit or
21 approval for which the Council would ordinarily determine compliance but
22 instead relies on a permit or approval issued to a third party, the Council, to issue
23 a site certificate, must find that the third party has, or has a reasonable likelihood
24 of obtaining, the necessary permit or approval, and that the applicant has, or has a
25 reasonable likelihood of entering into, a contractual or other arrangement with the
26 third party for access to the resource or service secured by that permit or
27 approval.”
28

29 **Discussion**

30 The Project will require two permits for which Summit/Westward would rely on a third party.
31 One permit is the site certificate for the transmission line from the energy facility to the BPA
32 Allston Substation. Summit/Westward would rely on PGE to obtain this permit. The other permit
33 concerns a new diversion point for water that Summit/Westward would purchase from the Port.
34

35 **Transmission Line.** The Summit Project would deliver electric power to the regional grid by
36 means of a 230-kV PGE/T transmission line interconnecting with the BPA Allston Substation
37 located about 10 miles south of the Summit Project site. The PGE/T transmission line that would
38 accept deliveries from the Summit Project would be built in an existing right-of-way
39 coincidentally with construction of a parallel 230-kV transmission line designed to deliver output
40 from PGE’s proposed PWGP to the BPA Allston Substation. The two transmission lines, both of
41 which would be installed on the same towers and within the same right-of-way, are addressed as
42 related or supporting facilities in the PWGP ASC now being reviewed by the Office.
43

44 The Council finds that PGE has a reasonable likelihood of obtaining the necessary site certificate
45 because the Office issued its proposed order that recommended approval of the PWGP on

1 August 23, 2002. The Council also finds that Summit/Westward has a reasonable likelihood of
2 entering into an agreement with PGE whereby the Summit Project may deliver electric power to
3 the regional grid at the BPA Allston Substation by means of the PGE/T transmission line
4 because: (1) the Office issued the draft proposed order recommending approval of the PWGP on
5 August 23, 2002; (2) Summit/Westward has adequately demonstrated in its ASC that PGE/T is
6 legally required under its tariff to build the transmission line; and (3) Summit/Westward has
7 provided evidence that the Federal Energy Regulatory Commission has approved its exempt
8 wholesale generator status.

9
10 **Raw Water Supply.** The Lease Agreement between the Port and Summit/Westward obligates
11 the Port to provide water to the Summit Project. The Port has applied to the Oregon Water
12 Resources Department (the “OWRD”) for additional points of diversion under its existing water
13 right to allow for groundwater withdrawals for the benefit of the Summit Project. The Port would
14 make the groundwater withdrawals at Port-owned and Port-operated facilities. Water would then
15 be delivered to the Summit Project by means of the water supply pipeline to be installed by the
16 Port and the related or supporting water supply pipeline to be installed by Summit/Westward.

17
18 The OWRD has provided a letter acknowledging receipt of the Port’s application for additional
19 diversion points under its existing water right and stating that the application provides an
20 adequate basis for a permit decision. Accordingly, the Office recommends that the Council find
21 that the Port has a reasonable likelihood of obtaining OWRD approval to add diversion points to
22 its state of Oregon water right permit (Permit No. 53677) to allow for the withdrawal of
23 groundwater under the permit. The Office also recommends that the Council find that
24 Summit/Westward has a reasonable likelihood of obtaining water from the Port in sufficient
25 quantities to operate the Summit Project because the Lease Agreement between the Port and
26 Summit/Westward obligates the Port to provide water to the Summit Project.

27 28 **Conclusion**

29 The Council finds that Summit/Westward meets the requirements of OAR 345-022-0010(3).

30 31 **D.2.d. Third-Party Services and Permits: Conditions, OAR 345-022-0010(4)**

32
33 “If the applicant relies on a permit or approval issued to a third party and the third
34 party does not have the necessary permit or approval at the time the Council
35 issues the site certificate, the Council may issue the site certificate subject to the
36 condition that the certificate holder shall not commence construction or operation
37 as appropriate until the third party has obtained the necessary permit or approval
38 and the applicant has a contract or other arrangement for access to the resource or
39 service secured by that permit or approval.”

40 41 **Discussion**

42 The Council adopts additional site certificate conditions relating to the Summit Project to BPA
43 Allston Substation Transmission Line, because the Council has not yet issued to PGE a site
44 certificate for the PWGP and related or supporting facilities, including the transmission line that
45 would deliver electric power generated by the Summit Project to the BPA Allston Substation.

1
2 The Council adopts the following conditions in the site certificate:
3

4 (7) Before beginning construction of the energy facility, the certificate holder
5 shall submit to the Office a contract for transmission service requiring
6 PGE/T to comply with any requirements imposed under the PWGP site
7 certificate.
8

9 (8) The certificate holder shall not begin operation of the energy facility until the
10 Port Westward to BPA Allston Substation Transmission Line is constructed
11 in compliance with the PWGP site certificate, which contains severable
12 conditions for the segment of the transmission line between the energy
13 facility and the BPA Allston Substation.
14

15 (9) The certificate holder shall apply to amend its site certificate to include the
16 Summit Project to BPA Allston Substation Transmission Line if PGE, or any
17 successor-in-interest, abandons its efforts to obtain a site certificate for the
18 PWGP or allows the site certificate to expire.
19

20 Conclusion

21 The Council finds that Summit/Westward meets the requirements of OAR 345-022-0010(4).
22

23 The Council finds that Summit/Westward meets the organizational expertise standard, OAR 345-
24 022-0010.
25

26 D.3. RETIREMENT AND FINANCIAL ASSURANCE, OAR 345-022-0050

27

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

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

32 “(2) The applicant has a reasonable likelihood of obtaining a bond or letter of
33 credit in a form and amount satisfactory to the Council to restore the site
34 to a useful, non-hazardous condition.”
35

36 Discussion

37 This section addresses the prospects for restoration of the site to a useful, nonhazardous
38 condition following facility retirement, the amount of financial assurance the Council should
39 require, and Summit/Westward’s ability to offer financial assurance.
40

41 **Retirement.** For the purposes of the retirement and financial assurance standard, a “useful,
42 nonhazardous condition” is a condition consistent with the applicable local comprehensive land
43 use plan and land use regulations. The energy facility site is currently zoned for Resource
44 Industrial-Planned Development (“RIPD”) uses.
45

1 At the end of the useful life of the energy facility (which Summit/Westward estimates to be 30
2 years or more), Summit/Westward would dismantle and remove all equipment and appurtenant
3 facilities that were not assets to the property owner (the Port or its successor) or a new tenant. It
4 would remove foundation pads. Deep foundations, such as stone columns or concrete-filled pipe
5 columns, would remain in place but would be terminated below the restored grade. Useful
6 equipment would be sold to suppliers or on the open market. Other nonhazardous material, such
7 as scrap metal, that cannot be sold for direct reuse would be sold to dealers whenever practical.
8 Unused chemicals would be sold back to the supplier or other purchasers or users. All equipment
9 containing chemicals would be drained and shut down. All nonhazardous wastes that cannot be
10 reused or recycled would be collected and disposed of in appropriate landfills or waste collection
11 facilities. All hazardous wastes would be disposed of according to applicable federal and state
12 regulations.

13
14 If the substation were not an asset to the property owner or a new tenant, it would be removed.
15 Summit/Westward would drain the mineral oil from all tanks, including those associated with
16 transformers, capacitors, and switchgear. This oil would be sold or given to an oil recycler for
17 reprocessing. If the electrical switchgear has no resale value, it would be sold as scrap metal.
18 After disassembly of the substation, Summit/Westward would remove the concrete foundations.

19
20 If the natural-gas pipeline were not an asset to the property owner or a new tenant, it would be
21 decommissioned. The pipeline would not be removed. Summit/Westward would cut and cap the
22 pipeline at each end. It would then purge the pipeline with an inert gas, such as nitrogen or
23 carbon dioxide, to remove flammable vapors so that the pipeline would not present a future fire
24 or safety hazard. It would then permanently plug the pipeline.

25
26 If the water supply pipeline were not an asset to the property owner or a new tenant, it would be
27 decommissioned. In the event of decommissioning, the related or supporting water supply
28 pipeline would not be removed. Summit/Westward would cut, drain, and plug the related or
29 supporting water supply pipeline.

30
31 If the water wells and ancillary equipment were not assets to the property owner or a new tenant,
32 they would be decommissioned. In the event of decommissioning, the wells would not be
33 removed. Summit/Westward would remove and sell or dispose of pumps and other equipment. It
34 would then seal the wells with grout.

35
36 The wastewater retention ponds would be decommissioned. Summit/Westward would remove
37 and properly dispose of all liquids and settled solids from the ponds. It would then remove and
38 properly dispose of the pond liners. Lastly, Summit/Westward would fill the ponds with
39 uncontaminated soil and compact and grade it to the current property elevation.

40
41 The Council adopts the following conditions in the site certificate:

42
43 **(1) Two years before closure of the energy facility and following consultation**
44 **with the Port of St. Helens or other future owners of the facility site, the**

1 certificate holder shall submit to the Office a proposed final retirement plan
2 for the facility and site, pursuant to OAR 345-027-0110, including:

- 3
- 4 (a) A plan for retirement that provides for completion of retirement
5 within two years of permanent cessation of operation of the facility
6 and that protects the public health and safety and the environment;
7
- 8 (b) A description of actions the certificate holder proposes to take to
9 restore the site to a useful, nonhazardous condition, including options
10 for postretirement land use [*see* Section D.7, Fish and Wildlife
11 Habitat, Condition (17)]; information on how it would minimize
12 impacts to fish, wildlife and the environment during the retirement
13 process; and measures it would take to protect the public against risk
14 or danger resulting from postretirement site conditions; and
15
- 16 (c) A current detailed cost estimate, a comparison of that estimate with
17 the dollar amount contained in the retirement fund, and a plan for
18 ensuring the availability of adequate funds for completion of
19 retirement.
20

- 21 (2) The certificate holder shall retire the facility if the certificate holder
22 permanently ceases construction or operation of the facility. The certificate
23 holder shall retire the facility according to a final retirement plan approved
24 by the Council, as described in OAR 345-027-0110, and prepared pursuant to
25 Condition (1).
26
- 27 (3) The certificate holder shall prevent the development of any conditions on the
28 site that would preclude restoration of the site to a useful, nonhazardous
29 condition to the extent that prevention of such site conditions is within the
30 control of the certificate holder.
31

32 The Council finds that Summit/Westward has demonstrated that it can adequately restore the
33 energy facility site to a useful, nonhazardous condition following facility retirement.
34

35 **Financial Assurance.** Summit/Westward estimated the cost of retirement of the energy facility
36 to be \$11,062,500 (in 2002 dollars), including \$600,000 to be applied to a general environmental
37 assessment and including a 25 percent contingency. Pursuant to OAR 345-027-0020(8),
38 Summit/Westward must provide a bond or letter of credit before significant construction activity
39 at the energy facility site.
40

41 The Council finds that this estimate is within the range of accuracy for estimates of this type,
42 particularly given the addition of a 25 percent contingency to address events over the course of
43 30 years that cannot be predicted with a high degree of accuracy. Accordingly, the Council finds
44 that the amount of the bond or letter of credit applicable to demolition and removal of structures
45 and the decommissioning of plant systems is \$11,062,500 (in 2002 dollars).

1
2 Accidental leaks or spills or improper materials handling over a period of several years could
3 contaminate large amounts of soil, particularly if the spills had access to cracks in concrete or
4 asphalt cover or did not occur over an impermeable surface. Such spills could result in much
5 higher site remediation costs.
6

7 Accordingly, the Council requires the certificate holder to conduct a Phase I Environmental Site
8 Assessment, in accordance with the most recent version of ASTM Standard E1527, *Standard*
9 *Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*,
10 every 10 years. If the Environmental Site Assessment concludes that there will be higher
11 remediation costs than can be covered by the bond or letter of credit then in place, the Council
12 requires the certificate holder to increase its bond or letter of credit to cover the higher costs.
13

14 Summit/Westward provided an opinion from legal counsel stating that, to the best knowledge of
15 counsel, Summit/Westward has the legal authority to construct and operate the energy facility
16 without violating its articles of organization or operating agreement.
17

18 On February 15, 2002, Summit/Westward provided a letter from U.S. Bank, indicating that U.S.
19 Bank believes it would be able to issue the required bond or letter of credit. Therefore, the
20 Council finds that Summit/Westward has a reasonable likelihood of obtaining a bond or letter of
21 credit, satisfactory to the Council, in an amount adequate to restore the site to a useful,
22 nonhazardous condition.
23

24 The Council adopts the following conditions in the site certificate:
25

- 26 **(4) Before beginning construction of the facility, the certificate holder shall**
27 **submit to the State of Oregon through the Council a bond or letter of credit**
28 **in the amount of \$11,062,500 (in 2002 dollars as of the second quarter)**
29 **naming the State of Oregon, acting by and through the Council, as**
30 **beneficiary or payee.**
31
- 32 **(a) The calculation of 2002 dollars shall be made using the U.S. Gross**
33 **Domestic Product Implicit Price Deflator, as published by the U.S.**
34 **Department of Commerce, Bureau of Economic Analysis, or any**
35 **successor agency (the "Index"). If, at any time, the Index is no longer**
36 **published, the Council shall select a comparable calculation of 2002**
37 **dollars. The form of the bond or letter of credit and identity of the**
38 **issuer shall be subject to approval by the Council.**
39
- 40 **(b) The amount of the bond or letter of credit account shall increase**
41 **annually by the percentage increase in the Index.**
42
- 43 **(b) The certificate holder shall not revoke or reduce the bond or letter of**
44 **credit before retirement of the facility without approval by the**
45 **Council.**

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- (5) The certificate holder shall describe in the annual report submitted to the Council, pursuant to OAR 345-026-0080, the status of the retirement fund or other instrument to ensure it has adequate funds to restore the site.
 - (6) Before beginning construction of the energy facility, the certificate holder shall implement the construction-phase materials management and monitoring plan that addresses the handling of hazardous substances and non-hazardous materials, as outlined in Exhibit G of the Application for Site Certificate. For the purpose of this condition and Conditions (7), (9), (10), and (11) below, the terms “release” and “hazardous substances” shall have the meanings set forth at ORS 465.200.
 - (7) Before beginning operation of the energy facility, the certificate holder shall implement the operation-phase materials management and monitoring plan that addresses the handling of hazardous substances and non-hazardous materials, as outlined in Exhibit G of the Application for Site Certificate.
 - (8) Not later than 10 years after the date of commercial operation, and every 10 years thereafter during the life of the energy facility, the certificate holder shall complete an independent Phase I Environmental Site Assessment of the energy facility site, in accordance with an accepted industry standard, such as ASTM Standard E1527. Within 30 days after its completion, the certificate holder shall deliver the Phase I Environmental Site Assessment report to the Office.
 - (9) In the event that any Phase I Environmental Site Assessment identifies improper handling or storage of hazardous substances or improper record-keeping procedures, the certificate holder shall correct such deficiencies within six months after completion of the corresponding Phase I Environmental Site Assessment. It shall promptly report its corrective actions to the Office. The Council shall determine whether the corrective actions are sufficient.
 - (10) The certificate holder shall report any release of hazardous substances to the Office within one working day after the discovery of such release. This obligation shall be in addition to any other reporting requirements applicable to such a release.
 - (11) If the certificate holder has not remedied a release consistent with applicable Oregon Department of Environmental Quality standards or if the certificate holder fails to correct deficiencies identified in the course of a Phase I Environmental Site Assessment within six months after the date the release becomes known or the date of completion of the Phase I Environmental Site Assessment, the certificate holder shall, within such six-month period, submit

1 to the Council for its approval an independently prepared estimate of the
2 remaining cost of remediation or correction.

3
4 (a) Upon approval of an estimate by the Council, the certificate holder
5 shall increase the amount of its bond or letter of credit by the amount
6 of the estimate.

7
8 (b) In no event, however, shall the certificate holder be relieved of its
9 obligation to exercise all due diligence in remedying a release of
10 hazardous substances or correcting deficiencies identified in the
11 course of a Phase I Environmental Site Assessment.

12
13 (12) All funds received by the certificate holder from the salvage of equipment
14 and buildings shall be committed to the restoration of the energy facility site
15 to the extent necessary to fund the approved site restoration and
16 remediation.

17
18 (13) If the Council finds that the certificate holder has permanently ceased
19 construction or operation of the facility without retiring the facility
20 according to a final retirement plan approved by the Council, as described in
21 OAR 345-027-0110 and prepared pursuant to Condition (1), the Council
22 shall notify the certificate holder and request that the certificate holder
23 submit a proposed final retirement plan to the Office within a reasonable
24 time not to exceed 90 days.

25
26 (a) If the certificate holder does not submit a proposed final retirement
27 plan by the specified date or if the Council rejects the retirement plan
28 that the certificate holder submits, the Council may direct the Office
29 to prepare a proposed a final retirement plan for the Council's
30 approval.

31
32 (b) Upon the Council's approval of the final retirement plan prepared
33 pursuant to subsection (a), the Council may draw on the bond or
34 letter of credit described in Condition (4) and shall use the funds to
35 restore the site to a useful, non-hazardous condition according to the
36 final retirement plan, in addition to any penalties the Council may
37 impose under OAR Chapter 345, Division 29.

38
39 (c) If the amount of the bond or letter of credit is insufficient to pay the
40 actual cost of retirement, the certificate holder shall pay any
41 additional cost necessary to restore the site to a useful, non-hazardous
42 condition.
43

1 (d) After completion of site restoration, the Council shall issue an order to
2 terminate the site certificate if the Council finds that the facility has
3 been retired according to the approved final retirement plan.
4

5 **Conclusion**

6 The Council finds that Summit/Westward meets the retirement and financial assurance standard,
7 OAR 345-022-0050.
8

9 **D.4. LAND USE, OAR 345-022-0030**

10
11 “(1) To issue a site certificate, the Council must find that the proposed facility
12 complies with the statewide planning goals adopted by the Land
13 Conservation and Development Commission.”
14

15 **Discussion**

16 Pursuant to ORS 469.504(1)(b), Summit/Westward elected to ask the Council to determine that
17 the proposed facility complies with Statewide Planning Goals. OAR 345-022-0030(2)(b)
18 provides:
19

20 “(2) The Council shall find that a proposed facility complies with section (1) if:
21 “(b) The applicant elects to obtain a Council determination under ORS
22 469.504(1)(b) and the Council determines that:
23 “(A) The proposed facility complies with applicable substantive
24 criteria as described in section (3) and the facility complies
25 with any Land Conservation and Development Commission
26 administrative rules and goals and any land use statutes
27 directly applicable to the facility under ORS 197.646(3).”
28

29 Attachment E to this Order, Land Use Standard Analysis, provides the findings and conclusions
30 to demonstrate compliance with the land use standard. In Attachment E, the Office recommends
31 a finding that the Summit Project complies with the substantive criteria from Columbia County’s
32 acknowledged comprehensive land use plan.
33

34 The Columbia County Board of Commissioners commented on the application, stating that
35 Columbia County Land Development Services Department finds the project to comply with
36 applicable substantive criteria from the county’s comprehensive plan and zoning ordinance. The
37 Board of Commissioners proposed conditions that are relevant to this section of this Order. The
38 Office has edited these conditions to make them consistent with the rest of this Order. With those
39 editorial changes, the Council adopts the following conditions recommended by the Columbia
40 County Board of Commissioners:
41

42 (1) **The certificate holder shall ensure that any signs used on the facility site**
43 **comply with requirements of Columbia County Zoning Ordinance §1300**
44 **applicable to industrial districts.**
45

1 (2) **The certificate holder shall provide for parking and loading spaces in**
2 **compliance with the requirements of Columbia County Zoning Ordinance**
3 **§1400, except as otherwise noted in Section VI of Attachment E of this Order**
4 **regarding variances.**
5

6 **Conclusion**

7 The Council finds that Summit/Westward complies with the land use standard, OAR 345-0022-
8 0030.

9
10 **D.5. SOIL PROTECTION, OAR 345-022-0022**

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

17
18 **Discussion**

19 The analysis area for the soil protection standard is the area within the site and on adjacent farm
20 properties, noting that cooling tower drift impacts may need to be considered over a larger area
21 based on wind and weather patterns in the area.
22

23 The Council considers adverse impacts to soils because of potential related impacts to
24 agricultural uses, native vegetation, fish and wildlife habitat, and water quality. Relevant under
25 this standard are the facility's potential impacts such as erosion, compaction, chemical spills, and
26 salt deposition resulting from cooling tower evaporation.
27

28 **D.5.a. Soil Types**

29 Summit/Westward identified soil classifications for the site and surrounding areas using the U.S.
30 Department of Agriculture Soil Conservation Service, Soil Survey of Columbia County, Oregon,
31 issued November 1986. Four major soil units are present on and adjacent to the site:
32

33 Unit 61 Soil – Upidsammets, nearly level, protected. This soil is usually deep and
34 excessively drained and formed in sandy dredge material. It tends to be barren or only
35 sparsely vegetated, with rapid or very rapid permeability, and is not well suited for crops
36 or pasture. Because runoff is slow, the water erosion hazard on this soil is low. Wind
37 erosion, however, may be moderate in some areas. This soil unit is considered
38 “protected,” because it is protected from flooding along the Columbia River by a dike
39 and/or sandy dredge material. Upidsammets make up more than 98 percent of the
40 proposed energy facility site’s soil.
41

42 Unit 15 Soil - Crims Silt Loam, protected. This soil is deep, very poorly drained organic
43 soil. The organic material is partially decomposed herbaceous plant material that is
44 underlain by silty alluvium. Crims silt loam has moderate permeability and is subject to
45 ponding in winter and spring. Water runoff is slow, and water erosion hazard is slight.

1 The primary uses of Crims silt loam are hay and pasture. It is also suitable for shallow-
2 rooted crops planted in the spring. This Crims silt loam is considered “protected,”
3 because it is protected from flooding along the Columbia River by a dike and/or sandy
4 dredge material. Crims silt loam makes up less than 2 percent of the proposed energy
5 facility site’s soil. This area is located within the proposed buffer area on the site and
6 would be left undeveloped.
7

8 Unit 60 Soils – Udipsamments, nearly level. This soil is very deep and excessively
9 drained. It formed in sandy dredge material. Permeability of this soil is rapid or very
10 rapid. Runoff is slow, and the hazard of water erosion is slight to moderate. The unit is
11 used mainly for recreational development and wildlife habitat.
12

13 Unit 29 Soils – Locoda Silt Loam, protected. This soil is deep and very poorly drained. It
14 formed in silty alluvium derived from mixed sources. Permeability of this soil is
15 moderately slow. Runoff is slow to ponded, and the hazard of water erosion is slight. The
16 unit is used mainly for hay and pasture. It is also used for crops, wildlife habitat, and
17 home sites. This unit is considered “protected,” because it is protected from flooding
18 along the Columbia River by a dike and/or sandy dredge material.
19

20 Most of the site is covered by Udipsamments. The Crims silt loam covers less than one acre in
21 the upper-middle portion of the energy facility site. The same soil types occur on lands
22 surrounding the site, in approximately the same proportions.
23

24 According to the U.S. Department of Agriculture Soil Conservation Service, Soil Survey of
25 Columbia County, Oregon, issued in November 1986, there are no soil types identified as prime
26 farmland (Class I or II) on the facility site.
27

28 **D.5.b. Impacts During Construction**

29 During construction, the two potential impacts to soils are from erosion and chemical spills.
30

31 Construction of the energy facility would involve a variety of activities that would temporarily
32 increase the potential for soil erosion. During construction of the energy facility, about half of
33 the site would be cleared of vegetation, graded, and leveled. Other activities that could affect
34 soils at the site include construction of temporary access roads and use of heavy equipment.
35

36 Installation of related or supporting facilities would require trenching. The added potential for
37 soil erosion is low because the water supply pipeline and natural-gas pipeline would be located
38 almost exclusively on existing roadways. A small segment of the each pipeline would be located
39 in an existing roadway that traverses Unit 15 soils. All of the ground disturbance for the
40 construction of the pipelines in the vicinity of Unit 15 soils would be limited to the existing
41 roadway, and would be further limited to a width of 10 feet, comprising 5 feet of trench and 5
42 feet of trench spoil pile. There would be no horizontal directional drilling in the vicinity of the
43 Unit 15 soils.
44

1 The most likely incident involving the handling of hazardous materials during construction of the
2 energy facility would be spills associated with dripping of fuels, oils, and grease from
3 construction equipment. An incident involving refueling a large piece of construction equipment
4 may represent the worst-case spill situation likely to be encountered during construction.
5 Summit/Westward proposes to implement a Spill Prevention Control and Countermeasure
6 (“SPCC”) plan, which includes steps to reduce the likelihood of a hazardous-material spill and
7 steps to reduce the consequences should one occur.

8 9 **D.5.c. Impacts During Operation**

10 The potential impacts during operation include soil erosion, hazardous-material spills, and salt
11 deposition on nearby farm and habitat land from cooling tower drift.

12 13 *Erosion*

14 Soil erosion during operation of the energy facility could occur if the soil was left disturbed or if
15 storm water runoff from the facility structures was not properly contained and directed off-site.
16 On-site soils have low to slight potential for water erosion, and much of the energy facility site
17 would remain undeveloped. In undeveloped areas, existing vegetation and soil conditions would
18 remain unchanged, and drainage patterns would not be significantly affected. The terrain at the
19 proposed site is relatively flat, which also reduces the potential for soil erosion.

20 21 *Hazardous Material Spill*

22 Several hazardous materials will be used during operations. Some of these materials (aqueous
23 ammonia, sulfuric acid, and sodium hydroxide) would be stored on a continuous basis while
24 other hazardous materials, *e.g.*, sodium nitrate, hydrochloric acid, would be brought on-site for
25 specific purposes.

26 27 *Cooling Tower Drift*

28 Wet mechanical draft cooling towers emit entrained liquid water mist, called drift, in the exhaust
29 stream. The drift contains dissolved salts that deposit out of the cooling tower plume as droplets
30 or evaporated solids. The Summit Project would be equipped with high-efficiency drift
31 eliminators with a drift rate of .0006 percent of the total cooling tower flow rate. The Office
32 recommends that this feature be required as a condition.

33
34 Using meteorological data from 1986 to 1990, Summit/Westward estimated the maximum
35 expected annual salt deposition from the cooling tower. The calculations were performed using
36 the Seasonal and Annual Cooling Tower Impacts model, an industry-standard computer model
37 developed by the Electric Power Research Institute. The model predicted that for the
38 meteorological data years from 1986 to 1990, salt deposition from the cooling tower would have
39 been between 48.2 and 131 kilograms per square kilometer per month (“kg/km²-month”). In all
40 years, the direction of maximum deposition was NNE, and the distance of maximum deposition
41 was 100 meters for all years except 1986, when it was 200 meters.

42
43 Summit/Westward cited studies by Pahwa and Shipley (1979) showing that salt stress symptoms
44 on the most sensitive crops were “barely perceptible” at a deposition rate of 2.98 grams per
45 square meter per year (“g/m²-year”). The predicted deposition rates for the Summit Project,

1 converted to equivalent units, had a maximum value of 1.57 g/m²-year, well under the barely
2 perceptible rate. Therefore, with the above condition requiring the drift eliminators, the Office
3 recommends the Council find that salt deposition from cooling towers will not significantly
4 affect soils in the analysis area.

6 **D.5.d. Mitigation Measures**

7 *Erosion Control Measures*

8 Erosion may be caused by wind or storm water runoff. As noted above, the soils at the site have
9 slight to moderate wind erosion potential. Summit/Westward would apply temporary straw
10 mulch to disturbed areas and would use water sprinkling or covering of exposed dry soils to
11 protect against wind erosion. Water of a quality equal to or better than surface runoff,
12 groundwater, or irrigation water would be sprayed on the soil in construction areas to control
13 dust and soil erosion.

14
15 Summit/Westward has submitted a Stormwater Pollution Prevention Plan (“SWPPP”) to control
16 erosion due to storm water runoff during construction. The SWPPP, which is provided as
17 Appendix O-1 to the ASC, lists the following Best Management Practices (“BMPs”) that
18 Summit/Westward would use to control storm water runoff during plant construction

- 19
- 20 • Stabilize plant site roadways with compaction or gravel.
- 21 • Create straw check dams to reduce erosion of existing drainage channels and to
- 22 promote sedimentation behind the dams.
- 23 • Place silt fencing to promote sedimentation behind the silt fence.
- 24 • Create storm water retention basins to retain runoff and allow excessive sediment
- 25 to settle out.
- 26 • Inspect temporary erosion control devices during construction.
- 27 • Ensure replacement of damaged or missing structures.
- 28 • Notify project construction crew to implement adequate precautions in
- 29 anticipation of poor weather conditions.
- 30 • Develop remedial erosion controls for problem areas, if any.
- 31 • Inspect sandbags placed along the toes of slopes and at related or supporting
- 32 facilities. Remove sediment after each significant storm event and deposit the
- 33 sediment in a stable area not subject to erosion.
- 34 • If sediment accumulates more than one foot behind the sandbag or barrier,
- 35 remove or regrade the sediment.
- 36 • Examine mulched areas for damage or deterioration and reapply mulch as necessary.
- 37 • Inspect protected storage areas for stockpiled soils or other materials and take
- 38 protective action as warranted.
- 39 • Inspect slope breakers in areas of active equipment within 24 hours after each 0.5
- 40 inches of rainfall.
- 41 • Maintain slope breakers until revegetation measures are successful or the area is
- 42 stabilized.
- 43 • Construct a permanent bermed area to the southeast of the energy facility to
- 44 collect as much on-site and off-site rainwater runoff as practical.
- 45

1 Because the soil types present on the energy facility site have low to slight water erosion
2 potential, the Office recommends the Council find that Summit/Westward's SWPPP is adequate
3 to ensure that construction of the facility is not likely to result in significant adverse impacts to
4 soils from erosion.

5
6 Summit/Westward is required to obtain a 1200-C storm water discharge permit from DEQ. The
7 1200-C permit is part of the National Pollutant Discharge Elimination System ("NPDES") permit
8 system and is therefore a federally delegated permit. Summit/Westward's application for the
9 DEQ 1200-C permit includes a Grading and Drainage Plan that DEQ will review for compliance
10 with its Erosion and Sediment Control requirements. The plan describes Summit/Westward's
11 proposed storm water drainage facilities, consistent with applicable design standards and
12 requirements. The drainage plan includes components to protect against erosion of ground
13 surfaces at the energy facility site, including placement of free-draining crushed rock layers
14 beneath and surrounding various structures, as needed, to allow for proper storm water drainage.
15 Implementation of these measures would protect against adverse impacts from soil erosion
16 during operation of the energy facility. Therefore, the Office recommends the Council find that
17 compliance with DEQ 1200-C permit requirements will ensure that plant operation is unlikely to
18 result in significant adverse soil impact from erosion.

19 *Chemical Spill Prevention and Control*

20 During construction, Summit/Westward will implement practices to reduce the likelihood or
21 magnitude of accidental spills. These practices include, but are not limited to:

- 22 • Fueling, lubrication and hydraulic fluid replacement on construction equipment
23 would be performed under a service contract, by trained personnel following
24 procedures.
- 25 • Normal refueling and maintenance operations of construction equipment would
26 occur in specific areas. These areas will be either bermed or covered with
27 concrete or asphalt.
- 28 • Refueling operations would be conducted using only National Fire Protection
29 Association-approved storage tanks, pumps, hoses, and nozzles.
- 30 • Metal or plastic containers would be placed under construction equipment being
31 serviced to catch accidental spills.
- 32 • All refueling or maintenance operations would be performed away from drains,
33 culverts and storm water runoff collection areas.
- 34 • Contaminated soil and other materials would be placed in appropriate containers,
35 transported to the contractor's 90-day temporary hazardous-material storage area,
36 and disposed of at a regulated hazardous-waste facility.
- 37 • All hazardous-material containers would be inspected periodically for signs of
38 leakage or failure, and all maintenance and refueling locations would be inspected
39 monthly. The inspections would be logged.
- 40
- 41
- 42

43 The potential for significant impacts from the use of hazardous materials during construction is
44 relatively low due to the relatively small quantities of chemicals used and the use of proper
45 handling procedures.

1
2 Exhibit G of the application lists chemicals that the Summit Project would use during operations.
3 The most hazardous chemical stored at the site would be aqueous ammonia. The aqueous
4 ammonia handling facilities would have continuous tank level monitors, temperature and
5 pressure monitors, alarms, check valves, and emergency block valves. The storage tank would be
6 inside a secondary containment moat, and the piping from the tank would be double-walled, if
7 applicable.

8
9 All chemical storage tanks and locations storing large quantities of hazardous materials would
10 have secondary containment constructed of concrete or asphalt with berms around the perimeter.
11 The secondary containment areas would hold the volume of the largest tank or container in the
12 area. Summit/Westward or its primary contractor would develop written procedures for each
13 containment area.

14
15 Because oils and petroleum products would be stored on site, Summit/Westward is required to
16 implement an SPCC plan that meets the requirements of title 40, part 112, Code of Federal
17 Regulations (“40 CFR 112”). Diesel oil for the diesel-driven fire pump is not subject to this
18 requirement because the amount stored will not exceed the 660-gallon single container or 1,320-
19 gallon multiple container threshold for SPCC plan requirements. However, diesel oil stored on
20 site is unlikely to adversely affect soils because of the small quantity used and because it would
21 be in a commercially manufactured system with internal spill controls and secondary
22 containment.

23
24 Summit/Westward has submitted a draft SPCC plan for oils and other petrochemicals. The draft
25 plan describes measures to prevent and contain spills at the electrical transformers, turbine
26 lubricating oil tanks, and hazardous material storage areas. The plan states that containment
27 volumes would meet or exceed 120 percent of tank volume as required by 40 CFR 112. The plan
28 also provides for preventive maintenance, inspection, spill reporting, and personnel training. The
29 Council finds that implementation of an SPCC plan that complies with 40 CFR 112 will ensure
30 that the facility is unlikely to adversely affect soils due to chemical spill.

31
32 The ASC lists certain actions that are described above to prevent adverse soil impacts. The
33 Council considers the following actions to be commitments by Summit/Westward and adopts the
34 following conditions in the site certificate:

- 35
36 **(1) Before beginning construction of the facility, the certificate holder shall**
37 **obtain a 1200-C storm water discharge permit from the Oregon Department**
38 **of Environmental Quality.**
39
40 **(2) Before beginning construction of the facility, the certificate holder shall**
41 **require its general contractor to develop and implement a Storm Water**
42 **Pollution Prevention Plan, substantially similar to the one proposed at**
43 **Appendix O-1 of the ASC.**
44

- 1 (3) **Upon completion of construction of the facility, the certificate holder shall**
2 **restore vegetation to the extent practicable and shall landscape portions of**
3 **the site disturbed by construction in a manner compatible with the**
4 **surroundings and proposed use.**
- 5
- 6 (4) **The certificate holder shall confine construction of related or supporting**
7 **pipelines to existing roadways, except where explicitly noted.**
- 8
- 9 (5) **The certificate holder shall implement a Spill Prevention Control and**
10 **Countermeasure plan that complies with 40 CFR 112. A copy of this plan**
11 **shall be available at the site for review at all times during working hours.**
- 12
- 13 (6) **The certificate holder shall ensure that ammonia handling facilities have**
14 **continuous tank level monitors, temperature and pressure monitors, alarms,**
15 **check valves, and emergency block valves. The certificate holder shall ensure**
16 **that the ammonia storage tank is inside a secondary containment moat, and**
17 **the certificate holder shall ensure that the piping from the tank is double-**
18 **walled, if applicable.**
- 19
- 20 (7) **The certificate holder shall store diesel oil in a commercially manufactured**
21 **system with internal spill controls and secondary containment.**
- 22
- 23 (8) **The certificate holder shall equip all chemical storage tanks and locations**
24 **storing large quantities of hazardous materials with secondary containment**
25 **constructed of concrete or asphalt with berms around the perimeter. The**
26 **secondary containment areas shall hold the volume of the largest tank or**
27 **container in the area. In sizing the containment area, the certificate holder**
28 **shall take into account rainfall that might accumulate during the 100-year-**
29 **frequency rain event. The certificate holder or its primary contractor shall**
30 **develop written procedures for each containment area.**
- 31
- 32 (9) **The energy facility shall be equipped with high-efficiency drift eliminators**
33 **with a drift rate of .0006 percent of the total cooling tower flow rate.**
- 34

35 **Conclusion**

36 The Council finds that, with the above conditions, Summit/Westward meets the soil protection
37 standard, OAR 345-022-0022

38

39 **D.6. PROTECTED AREAS, OAR 345-022-0040**

40 With exceptions that do not apply in this instance, the Council shall not issue a
41 site certificate for a proposed facility located in the areas listed in OAR 345-022-
42 0040(1)(a) through (p) (the “protected areas”). To issue a site certificate for a
43 proposed facility located outside the protected areas, “the Council must find that,
44 taking into account mitigation, the design, construction and operation of the

1 facility are not likely to result in significant adverse impact” to the protected
2 areas.
3

4 **Discussion**

5 The analysis area for protected areas is the area within one mile of the site, except where DEQ
6 regulations require an assessment of visibility impacts. Summit/Westward identified protected
7 areas listed at OAR 345-022-0040(1) within 20 miles of the energy facility site, including state
8 parks, wildlife refuges, and hatcheries in Washington State. The protected areas shown in Table
9 D.6-1 are within that 20-mile radius. The facility would not be located within any protected area,
10 and there are no protected areas within the analysis area.
11

12 **TABLE D.6-1**
13 **DISTANCE AND DIRECTION TO PROTECTED AREAS FROM SITE**
14

Protected Area Description	Distance and Direction from Site
Lewis and Clark National Wildlife Refuge	12 miles, W
Nehalem River	23 miles, S
Gnat Creek Fish Hatchery	16 miles, W
Bradley State Wayside	13 miles, W
Julia Butler Hansen National Wildlife Refuge	14 miles, NW
Seaquest State Park	17 miles, NE
Fallert Creek Hatchery	17 miles, SE
Kalama Falls Hatchery	18 miles, SE

15
16 The energy facility site is within the Port Westward Industrial Area, which is located on a level
17 plain at a bend in the Columbia River, at a mean elevation of 25 feet above sea level. The plain is
18 surrounded by hills that obscure it from view at distances far less than the 12-mile distance to the
19 nearest protected area. It is further obscured from view from these protected areas by the
20 meandering of the Columbia River.
21

22 The Council finds that due to the distance of the protected areas from the energy facility site and
23 the topography of the region, the energy facility will have no adverse impact on the protected
24 areas.
25

26 **Conclusion**

27 The Council finds that Summit/Westward meets the protected areas standard, OAR 345-022-
28 0040.
29

1 **D.7. FISH AND WILDLIFE HABITAT, OAR 345-022-0060**

2
3 “To issue a site certificate, the Council must find that the design, construction,
4 operation and retirement of the facility, taking into account mitigation, is
5 consistent with the fish and wildlife habitat mitigation goals and standards of
6 OAR 635-415-0025 in effect as of September 1, 2000.”
7

8 **Discussion**

9 OAR 635-415-0025 describes six categories of habitat in order of their value. The rule then
10 establishes mitigation goals and corresponding implementation standards for each habitat
11 category.
12

13 **Habitat Categories**

14 Habitat Category 1 is “irreplaceable, essential habitat for a fish or wildlife species,
15 population, or a unique assemblage of species and is limited on either a
16 physiographic province or site-specific basis, depending on the individual species,
17 population or unique assemblage.” The mitigation goal for Habitat Category 1 is
18 “no loss of either habitat quantity or quality.” The implementation standard
19 requires “avoidance of impacts through alternatives to the proposed development
20 action.”
21

22 Habitat Category 2 is “essential habitat for a fish or wildlife species, population,
23 or unique assemblage of species and is limited either on a physiographic province
24 or site-specific basis depending on the individual species, population or unique
25 assemblage.” The mitigation goal for Habitat Category 2, if impacts are
26 unavoidable, is “no net loss of either habitat quantity or quality and to provide a
27 net benefit of habitat quantity or quality.” The implementation standard is
28 “avoidance of impact through alternatives to the proposed development action” or
29 “mitigation of impacts, if unavoidable, through reliable in-kind, in-proximity
30 habitat mitigation to achieve no net loss of either pre-development habitat
31 quantity or quality. In addition, a net benefit of habitat quantity or quality must be
32 provided.”
33

34 Habitat Category 3 is “essential habitat for fish and wildlife, or important habitat
35 for fish and wildlife that is limited either on a physiographic province or site-
36 specific basis, depending on the individual species or population.” The mitigation
37 goal for Habitat Category 3 is “no net loss of either habitat quantity or quality.”
38 The implementation standard is “avoidance of impacts through alternatives to the
39 proposed development action” or “mitigation of impacts, if unavoidable, through
40 reliable in-kind, in-proximity habitat mitigation to achieve no net loss in either
41 pre-development habitat quantity or quality.”
42

43 Habitat Category 4 is “important habitat for fish and wildlife species.” The
44 mitigation goal for Habitat Category 4 is “no net loss in either existing habitat
45 quantity or quality.” The implementation standard is “avoidance of impacts

1 through alternatives to the proposed development action” or “mitigation of
2 impacts, if unavoidable, through reliable in-kind or out-of-kind, in-proximity or
3 off-proximity habitat mitigation to achieve no net loss in either pre-development
4 habitat quantity or quality.”
5

6 Habitat Category 5 is “habitat for fish and wildlife having high potential to
7 become either essential or important habitat.” The mitigation goal for Habitat
8 Category 5, if impacts are unavoidable, is “to provide a net benefit in habitat
9 quantity or quality.” The implementation standard is “avoidance of impacts
10 through alternatives to the proposed development action” or “mitigation of
11 impacts, if unavoidable, through actions that contribute to essential or important
12 habitat.”
13

14 Habitat Category 6 is “habitat that has low potential to become essential or
15 important habitat for fish and wildlife.” The mitigation goal for Habitat Category
16 6 is “to minimize impacts.” The implementation standard is to “minimize direct
17 habitat loss and avoid impacts to off-site habitat.”
18

19 The habitat impacts of construction, operation, and retirement of the facility may be so
20 significant in nature, extent, or duration that mitigation measures to achieve the goals and
21 standards of OAR 635-415-0025 cannot be identified without the evaluation that would be
22 provided in a written mitigation plan. A “mitigation plan” means a written plan that is
23 substantially as described in OAR 635-415-0020 and is approved by the Office in consultation
24 with the Oregon Department of Fish and Wildlife (“ODFW”).
25

26 For Habitat Categories 2, 3, and 4, the certificate holder must report progress towards achieving
27 the mitigation goals and standards on a schedule agreed to in the mitigation plan performance
28 measures. The fish and wildlife mitigation measures must be implemented and completed either
29 before or concurrent with the development action.
30

31 **Habitat in the Analysis Area**

32 The analysis area for fish and wildlife habitat includes, at a minimum, a “base case” analysis area
33 within 300 on either side of the proposed transmission line corridor, and a similar distance from
34 the proposed energy facility site, water intake/discharge facilities, and temporary construction
35 zone. The analysis area for great blue heron rookeries and raptor nesting sites, including
36 peregrine falcon, osprey, and bald eagle nesting sites, at a minimum, is the area within one-
37 quarter mile on either side of any proposed corridor alignment, the energy facility site, and the
38 temporary construction zone, and one-half mile for bald eagle nests within direct line of sight.
39

40 Habitat Categories 2, 3, 4, and 6 occur within the analysis area. Habitat Category 2 occurs as
41 perennial streams, main-stem perennial river, and purple martin nesting habitat. The Columbia
42 River and Bradbury Slough are Category 2 habitat for six federally listed, proposed, and
43 candidate fish species. Habitat Category 3 occurs as tame pastureland, perennial grassland, and
44 emergent and scrub-shrub wetlands [Wetland Nos. 2 and 3 and palustrine-scrub/shrub-seasonally
45 flooded (“PSSC”) Wetland No. 1]. It serves as osprey nesting, Columbian white-tailed deer, and

1 dusky Canada goose habitat. Habitat Category 4 occurs as annual cropland, cultivated tree farm,
2 developed/roads, irrigation and drainage ditches, and emergent wetlands (Wetland Nos. 1, 5, 6,
3 7, 8, 9, 10, 11, and 12). It serves as Columbian white-tailed deer and dusky Canada goose
4 habitat. Habitat Category 6 occurs as disturbed roads and existing developed areas.
5

6 **Potential Impacts – Construction and Operation**

7

8 **Direct Impacts (Habitat Quantity)**

9 Construction of the facility would take place within and directly affect Habitat Categories 3, 4,
10 and 6. Construction and operation of the facility would not directly affect Habitat Category 2.
11 (ASC, Exhibit P, Table P-3, page P-14.)
12

13 Habitat Category 3 Impacts. The facility would affect 47.93 acres of Habitat Category 3. Of this
14 impact, 28.08 acres would be permanent and 19.85 acres would be temporary. Impacts would be
15 to perennial grassland (28.08 acres permanent, 9.85 acres temporary) and tame pastureland (10
16 acres temporary).
17

18 The permanent impacts would result from the energy facility footprint (includes the complete
19 footprint of fenced enclosure), the transmission poles and guy cables, and the water pump house.
20 The temporary impacts would result from construction of the energy facility (site clearing and
21 grading for staging areas and access roads), the natural gas and water pipelines, the electrical
22 transmission lines, and the temporary staging area. (ASC, Exhibit P, Table P-3, page P-14.)
23

24 Habitat Category 4 Impacts. The energy facility would permanently affect 0.48 acres of Habitat
25 Category 4. The permanent impacts would result from the energy facility footprint. The impacts
26 would be to emergent wetland (Wetland #11) and drainage ditches. (ASC, Exhibit P, Table P-3,
27 page P-14.)
28

29 Habitat Category 6 Impacts. The facility would temporarily affect 3.70 acres of Habitat Category
30 6. The impacts would result from construction of the natural-gas and water supply pipelines and
31 water pump house. This habitat is developed/roads.
32

33 **Indirect Impacts (Habitat Quality)**

34 Indirect effects on habitat quality during construction and operation could occur due to noise,
35 traffic, human activity, maintenance activities, and operation of the energy facility.
36

37 Construction: Construction of the facility could indirectly affect nesting and foraging activity of
38 wildlife, including raptors, great blue heron, dusky Canada goose, Columbian white-tailed deer,
39 and purple martins if construction takes place during the periods of breeding or rearing and if it
40 takes place within a “disturbance distance” of nesting or rearing sites. Purple martin nest sites
41 (Habitat Category 2) may be located at or near the existing PGE water intake structure and within
42 0.25 mile of the proposed transmission line and water supply pipeline. An artificial osprey nest
43 platform (Habitat Category 3) is located within 0.25 mile of the water supply pipeline and water
44 pump house construction and potentially could be disturbed during construction. In addition, two

1 large cottonwood trees will be removed during site clearing. These trees may provide nesting or
2 perching habitat for a variety of raptor species.

3
4 Operation: Potential indirect impacts from operation of the facility include noise, cooling tower
5 emissions, traffic, fencing, and transmission line avian electrocution.

6
7 Summit/Westward does not expect that operation noise will adversely impact wildlife resources
8 within or adjacent to the Summit Project (ASC, Exhibit P, page P-21). Summit/Westward
9 anticipates, and the Office concurs, that the Canada dusky geese and Columbian white-tailed
10 deer would become accustomed to the increase in noise and human activity associated with the
11 energy facility.

12
13 Noise studies submitted pursuant to DEQ noise regulations show that noise from the facility
14 would be less than the noise from the existing Beaver Power Plant.

15
16 Cooling tower emissions could produce ground fogs and salt deposition as the fog evaporates. As
17 discussed in Sections D.5.c. and F.1.c of this Order, the Office recommends that the Council find
18 that ground-level fogging and salt deposition will not have significant impacts on fish or wildlife
19 habitat.

20
21 Summit/Westward does not expect operation of the 230-kV transmission line to pose a
22 significant hazard to fish and wildlife habitat. The transmission line would be located near an
23 existing line to minimize potential collision and electrocution hazards. It will be constructed
24 according to the Avian Power Line Interaction Committee Guidelines. The 230-kV transmission
25 line would include visual line enhancers and adequate spacing of the wires to minimize collisions
26 and electrocution hazards to raptors and waterfowl (ASC, Exhibit P, page P-22).

27
28 All pipelines would be underground, and their operation would have low potential to cause
29 adverse impact to habitat during operation.

30
31 Maintenance of the transmission line right-of-way would have negligible impact on wildlife
32 habitat, because the line would be located in an existing, previously disturbed utility right of
33 way. Storm water runoff would be controlled through a series of drainage features.

34
35 Water supply for the Summit Project would be drawn from a proposed infiltration gallery water
36 system (also referred to as a "Ranney collector well"). The well's direct connectivity with
37 groundwater below the river precludes interference with inland wells relying upon either shallow
38 or deep aquifer sources. Summit/Westward estimates the Summit Project would use an average
39 of 3,560 acre-feet of water annually and a maximum of 4,356 acre-feet of water annually. The
40 groundwater withdrawals would not result in a significant impact on aquatic habitats or listed
41 fish species. Exhibit O of the ASC provides more detailed information on the water requirements
42 proposed for the Project.

43
44 The Council finds that construction and operation of the facility is not likely to result in
45 significant adverse impact to fish and wildlife habitat.

1
2 Potential Impacts – Retirement: Summit/Westward estimates that the useful life of the facility is
3 a minimum of 30 years. Pursuant to conditions and Council rules, the certificate holder would
4 restore the site to a useful, nonhazardous condition following permanent cessation of
5 construction or operation of the facility. Site restoration would consist primarily of dismantling
6 and removing unneeded equipment and structures. The water supply lines and wells and gas
7 pipeline would be decommissioned but left in place (ASC, Exhibit W, pages W-3 and W-4). The
8 Summit/Westward on-site electrical transmission line would be physically removed (ASC,
9 Exhibit P, page P-24).

10
11 Because the facility would be built and operated in accordance with applicable standards,
12 including the conditions of the site certificate, it is unlikely that soils or groundwater at the site
13 would become contaminated. The energy facility site and surrounding lands are zoned RIPD
14 (ASC, Exhibit K, page K-1). The land contains primarily Habitat Category 3 (essential or
15 important habitat that is limited either on a physiographic province or site-specific basis,
16 depending on the individual species or population), Habitat Category 4 (important but not
17 limited), and Habitat Category 6 (not important and with low potential to become important).

18
19 In addition, as required by Council rules, the site certificate will require the certificate holder to
20 submit a retirement plan before permanent shutdown of the facility. The plan must include
21 measures to minimize impacts to fish and wildlife habitat and ensure no net loss of habitat
22 quantity or quality with respect to essential or important habitat. As discussed below,
23 Summit/Westward has obtained a long-term lease and will establish a conservation easement
24 equal in size to the number of acres permanently disturbed by the facility (currently estimated to
25 be about 20 acres) on the adjacent 40-acre Pereira property for the life of the facility. The
26 conservation easement would provide a vegetated travel corridor to the east of the energy facility
27 for use by Columbian white-tailed deer traveling between Crims Island and the tree farms to the
28 west and south of the energy facility. Upon retirement of the facility, Summit/Westward would
29 restore the site to its preconstruction condition or, in the event the site is to be restored for use by
30 another industrial facility, Summit/Westward would maintain the conservation easement in effect
31 until the year 2100. For these reasons, the Council finds that retirement of the facility is not
32 likely to result in a significant impact to fish and wildlife habitat.

33
34 Mitigation: Summit/Westward proposes measures to avoid and mitigate for direct and indirect
35 impacts to fish and wildlife areas disturbed by construction, operation, and retirement of the
36 energy facility.

37
38 Summit/Westward avoided and minimized impacts to habitat and water resources through site
39 design modifications, thereby reducing impacts to wetlands and other habitat. Proposed utility
40 and transmission lines would be sited within existing utility corridors and no construction
41 activities would occur within the Columbia River or its tributaries.

42
43 To minimize significant potential impacts to fish and wildlife habitat, Summit/Westward
44 proposes the following mitigation measures:
45

- 1 1. Use of BMPs and erosion and sediment control techniques to minimize impacts to
- 2 water quality, wetlands, and riparian habitat;
- 3 2. Placement of the Summit/Westward on-site transmission towers outside wetlands;
- 4 3. Reseeding areas of unavoidable soil disturbance; and
- 5 4. Implementing appropriate actions to prevent waste materials and the outflow from
- 6 unavoidable spills from entering waterways or wetlands.
- 7

8 To mitigate the unavoidable impacts of construction on 0.48 acre of emergent wetlands and
9 drainage ditches and about 20 acres of Category 3 perennial grassland habitat and tame
10 pastureland, Summit/Westward proposes the following measures:

- 11 1. Create 0.75 acre of palustrine emergent seasonal depressional wetland on the
- 12 project site;
- 13 2. Restore disturbed upland areas with an approved seed mix;
- 14 3. Place a conservation easement upon equal in size to the number of acres
- 15 permanently disturbed by the facility (currently estimated to be about 20 acres) on
- 16 the adjacent 40-acre Pereira property for which Summit/Westward has entered
- 17 into a long-term lease, to provide a vegetated travel corridor to the east of the
- 18 energy facility for use by Columbian white-tailed deer traveling between Crims
- 19 Island and the tree farms to the west and south of the energy facility;
- 20 4. Plant five acres of native trees and shrubs for cover, browse, and a vegetated
- 21 travel corridor within the conservation easement;
- 22 5. Manage the remainder of the conservation easement for waterfowl and deer
- 23 habitat through annual fall mowing; and
- 24 6. Manage the open fields to enhance foraging opportunities for waterfowl within
- 25 the project site.
- 26
- 27

28 The Council adopts the following conditions in the site certificate:

- 29
- 30 **(1) The certificate holder shall, to the extent practicable, avoid and, where**
- 31 **avoidance is not possible, minimize construction and operation disturbance**
- 32 **to areas of native vegetation and areas that provide important wildlife**
- 33 **habitat. With respect to construction of the facility, including, but not limited**
- 34 **to, all pipelines, electric transmission lines, and temporary laydown areas,**
- 35 **the certificate holder shall mitigate possible impacts to wildlife by measures**
- 36 **including, but not limited to, the following:**
- 37
- 38 **(a) Implementing a Worker Environmental Awareness Program as**
- 39 **described in Exhibit Q, page Q-26.**
- 40
- 41 **(b) Minimizing road construction and vehicle use where possible.**
- 42
- 43 **(c) Posting speed limit signs throughout the construction zone.**
- 44

- 1 (d) Instructing all construction personnel, including all construction
2 contractors and their personnel, on sensitive wildlife of the area and
3 on required precautions to avoid injuring or destroying wildlife.
4
- 5 (e) Instructing all construction personnel, including all construction
6 contractors and their personnel, to be cautious of wildlife while
7 driving through the facility site, to maintain reasonable driving speeds
8 so as not to harass or accidentally strike wildlife, and to be
9 particularly cautious and drive at slower speeds in the period from
10 one hour before sunset to one hour after sunrise, when some wildlife
11 species are the most active.
12
- 13 (f) Requiring all construction personnel, including all construction
14 contractors and their personnel, to report any injured or dead wildlife
15 detected at the facility site.
16
- 17 (2) The certificate holder shall site and construct the energy facility and the
18 Summit/Westward on-site electrical transmission line to minimize impacts to
19 vegetation and habitat. The energy facility and related or supporting
20 facilities shall be located within disturbed Habitat Category 6, Habitat
21 Category 4 palustrine emergent wetlands and drainage ditches, and Habitat
22 Category 3 tame pastureland and perennial grassland.
23
- 24 (3) The certificate holder shall design and site the Summit/Westward on-site
25 transmission towers to minimize potential impacts to raptors and waterfowl,
26 following the Avian Power Line Interaction Committee Guidelines.
27
- 28 (4) Before beginning construction of the facility, and in the appropriate season,
29 the certificate holder shall conduct wildlife surveys within 0.25 mile of the
30 site to locate raptor nest sites and great blue heron rookeries. Should nests or
31 rookeries be located, the certificate holder shall consult with ODFW to
32 determine the action necessary to avoid adverse impacts. If impacts cannot
33 be avoided, the certificate holder shall complete a mitigation project
34 approved by ODFW that meets the requirements of the habitat mitigation
35 policy for “no net loss.”
36
- 37 (5) The certificate holder shall ensure that the water supply pipeline and well
38 system are installed during the osprey’s non-nesting season, *i.e.*, the period
39 from October 1 through March 30. If construction of the facility occurs
40 within the nesting season, the certificate holder shall relocate the existing
41 osprey nest platform to an ODFW-approved location.
42
- 43 (6) The certificate holder shall avoid or minimize impacts to raptors by
44 conducting preconstruction surveys within the analysis area and establishing
45 a construction buffer around raptor nests during the nesting season, as

1 approved by ODFW. If avoidance is not practical for nonlisted threatened or
2 endangered raptor species, the certificate holder shall complete a mitigation
3 project approved by ODFW that meets the requirements of the habitat
4 mitigation policy for “no net loss.”
5

- 6 (7) The certificate holder shall restore temporary upland disturbance areas by
7 returning the areas to their original grade and seeding, with appropriate seed
8 mixes as recommended by ODFW and as shown in Table 2 (ASC, Exhibit P,
9 Appendix P-1, page 6). The certificate holder shall obtain ODFW
10 concurrence before making any changes to the proposed seed mix.
11
- 12 (8) To mitigate for 0.48 acre of impact to emergent and scrub-shrub wetland, the
13 certificate holder shall create 0.75 acre of wetland on the facility site.
14
- 15 (9) Before beginning construction of the facility, to mitigate for Category 3
16 habitat types that would be permanently disturbed by the facility, the
17 certificate holder shall protect, on a one-to-one basis, a corresponding
18 number of acres of in-kind and in-proximity habitat by execution of a
19 conservation easement for the life of the facility on the adjacent Pereira
20 property. The certificate holder estimates that the proposed facility would
21 permanently disturb about 20 acres of Category 3 habitat types. Before
22 beginning construction of the facility, the certificate holder shall provide to
23 the Office documentation showing the number of acres that will be
24 permanently disturbed by the facility, a copy of the conservation easement or
25 similar conveyance showing that, on a one-to-one basis, a corresponding
26 number of acres of in-kind and in-proximity habitat will be protected for the
27 life of the facility, and evidence that ODFW concurs with the alignment of
28 the conservation easement, the allocation of plantings, and the certificate
29 holder’s proposed mowing practices.
30
- 31 (10) The certificate holder shall plant five acres of native trees and shrubs north
32 of the railroad tracks within the conservation easement. The trees and shrubs
33 shall be those listed on ASC, Exhibit P, Appendix P-1, Figure 4.4-2, plus
34 western red cedar (*Thuja plicata*) and Douglas fir (*Pseudotsuga menziesii*).
35 The density of the plantings shall be as specified on Figure 4.4-2. The trees
36 and shrubs shall be planted in irregularly shaped blocks measuring at least
37 100 feet by 100 feet, which are spaced no greater than 200 feet apart. The
38 blocks shall be planted within an area extending from the railroad tracks at
39 the southern end of the field to the access road along the northern end of the
40 field. The blocks shall be concentrated along the western fence line to provide
41 a travel corridor for Columbian white-tailed deer.
42
- 43 (11) The certificate holder shall plant trees and shrubs in the conservation
44 easement before March 31 after execution of the conservation easement and
45 shall observe the following minimum requirements:

1 holder restores the energy facility site for use by another industrial facility,
2 the certificate holder shall maintain the conservation easement in effect until
3 the year 2100.
4

5 Consistency with ODFW Goals: The Office recommends that the Council find that the facility,
6 subject to the conditions in this Order, is consistent with the ODFW fish and wildlife habitat
7 goals and standards for the reasons stated below.
8

- 9 • The facility would not affect Habitat Category 1 or 2.
- 10 • The facility would directly affect Habitat Category 3 (tame pastureland and
11 perennial grassland). Summit/Westward would meet the mitigation goal (no net
12 loss of quantity or quality) by restoring temporary impact areas, establishing a
13 conservation easement on 28 acres of the Pereira property, planting five acres of
14 native shrubs and trees, and managing open grasslands for deer and waterfowl.
- 15 • The facility may affect a Habitat Category 3 osprey nest. Summit/Westward would
16 meet the mitigation goal (no net loss of quantity or quality) by relocating the
17 osprey's nesting platform if construction work within the disturbance area (0.25
18 mile) cannot be conducted during the nonnesting season.
- 19 • The facility would directly affect Habitat Category 4 (emergent wetlands,
20 drainage ditch). Summit/Westward would meet the mitigation goal (no net loss of
21 quantity or quality) by creating 0.75 acre of emergent wetland on the Project site.
- 22 • The facility would directly affect Habitat Category 6 (developed/disturbed).
23 Summit/Westward would meet the mitigation goal (minimize impacts) by
24 confining impacts to the minimum area practicable.
25

26 **Conclusion**

27 The Council finds that Summit/Westward meets the fish and wildlife habitat standard, OAR 345-
28 0022-0060.
29

30 **D.8. THREATENED AND ENDANGERED SPECIES, OAR 345-022-0070**

31
32 "To issue a site certificate, the Council, after consultation with appropriate state
33 agencies, must find that:

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

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

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

1 “(2) For wildlife species that the Oregon Fish and Wildlife Commission has
2 listed as threatened or endangered under ORS 496.172(2), the design,
3 construction, operation and retirement of the proposed facility, taking into
4 account mitigation, are not likely to cause a significant reduction in the
5 likelihood of survival or recovery of the species.”
6

7 **Discussion**

8 **Threatened and Endangered Plant Species**

9 The Oregon Department of Agriculture (“ODA”) designates state-listed threatened or
10 endangered plant species under ORS chapter 564 and OAR chapter 603, division 73.
11 Summit/Westward contacted ODA for information about listed plant species and any applicable
12 protection and conservation programs. Summit/Westward also consulted with the USFWS,
13 National Marine Fisheries Service (“NMFS”), and the Oregon Natural Heritage Program
14 (“ONHP”) for information about listed and sensitive species.
15

16 The analysis area for threatened and endangered plant species is, at a minimum, the area within
17 150 feet on either side of the proposed transmission, gas pipeline, and water supply line corridor
18 and a similar distance surrounding the proposed energy facility site and temporary construction
19 zone. Pursuant to the Project Order, “threatened and endangered plant species” means species
20 listed as threatened or endangered by the state under ORS 564.105 and by the federal
21 government under 16 USCA § 1533. Greystone conducted reconnaissance-level field surveys for
22 Summit/Westward within the analysis area for the energy facility on February 22, April 3, and
23 September 18, 2001. Botanical field ground surveys were conducted on May 7 and September
24 18, 2001.
25

26 No state-listed threatened plant species are known to occur in the energy facility analysis area.
27 However, Howell’s montia (*Montia howellii*) is a federally listed threatened species and is
28 considered a candidate for state listing.
29

30 Potential Impacts on Plants: Summit/Westward conducted species surveys for the energy facility
31 analysis area and found none of the listed or candidate species. No potentially suitable habitat
32 was found on the site and Howell’s montia (*Montia howellii*) is likely extirpated from Oregon.
33 Therefore, there are no expected impacts to the species.
34

35 **Construction and Operation**

36 Direct Impacts (Habitat Quantity)

37 The Council finds that there will likely be no direct impacts to threatened, endangered, or
38 candidate plant species or their habitat on the energy facility site.
39

40 Indirect Impacts (Habitat Quality)

41 The Council finds that there will likely be no indirect impacts to threatened, endangered, or
42 candidate plant species or their habitat on the energy facility site.
43

1 **Retirement**

2 Pursuant to conditions and Council rules, when Summit/Westward retires the facility, it must
3 restore the site to a useful, nonhazardous condition following permanent cessation of
4 construction or operation of the facility. Site restoration would consist primarily of dismantling
5 and removing unneeded equipment and structures. Summit/Westward would leave gas and water
6 transmission lines in place and remove the Summit/Westward on-site electrical transmission line.
7 Proposed conditions under the Council’s retirement standard and soil protection standard ensure
8 that the likelihood of chemical contamination is minimized and that any unanticipated chemical
9 or petroleum spills are remediated. Other than the potential for chemical contamination, the
10 removal of electric generating equipment and associated structures is not likely to adversely
11 affect threatened, endangered, or candidate plant species.

12
13 The Council finds that the operation, construction, and retirement of the facility are consistent
14 with ODA rules and are not likely to have an adverse impact on any threatened, endangered, or
15 candidate plant species or their habitat.

16
17 **Threatened and Endangered Animal Species**

18 ODFW has designated state-listed threatened and endangered wildlife species under ORS
19 496.172. OAR chapter 635, division 100 provides authority for adoption of the state sensitive-
20 species list and the Wildlife Diversity Plan and contains the state list of threatened and
21 endangered wildlife species. Summit/Westward reviewed ODFW sources and consulted with
22 USFWS, NMFS, and ONHP for information about state- and federally- listed and candidate
23 species.

24
25 The analysis area for threatened and endangered animal species, at a minimum, is a “base case”
26 analysis area within 300 feet of either side of the proposed transmission line corridor and a
27 similar distance from the proposed energy facility site, water intake facilities, and temporary
28 construction zones. The analysis area for raptor nesting sites, including bald eagle nesting sites,
29 at a minimum, is the area within one-quarter mile on either side of any proposed corridor
30 alignment, the energy facility site, and temporary construction zones. Pursuant to the Project
31 Order, “raptor nesting sites” means nesting sites for birds of prey, such as bald eagles, osprey,
32 hawks, falcons, and owls; “threatened and endangered animal species” means species listed as
33 threatened or endangered by the state under ORS 496.172 and by the federal government under
34 16 USCA § 1533.

35
36 Two state-listed endangered (“OE”) species, peregrine falcon (*Falco peregrinus anatum*) (no
37 federal status) and the upper Columbia River Chinook salmon (*Oncorhynchus tshawytscha*) (also
38 federal endangered “FE”) are known to occur in the general area of the proposed energy facility,
39 as well as three state- and federally- listed threatened (“FT/OT”) species: bald eagle (*Haliaeetus*
40 *leucocephalus*), Snake River fall Chinook salmon (*O. tshawytscha*), and upper Willamette River
41 Chinook salmon. Also, the Snake River spring/summer Chinook salmon (*O. tshawytscha*) is a
42 state-listed threatened (“OT”) species (federal species of concern) (ASC, Exhibit Q, Table Q-1,
43 page Q-7).

1 In addition, there are several federally- listed threatened (“FT”), endangered (FE), or candidate
2 (“FC”) species, including Oregon spotted frog (*Rana pretiosa*) (FC); lower Columbia River/SW
3 Washington ESU coho (*Oncorhynchus kisutch*) (FC); Lower Columbia River, Upper Willamette
4 River, and Snake River Chinook salmon (*Oncorhynchus tshawytscha*) (FT); Columbia River
5 chum salmon (*O. keta*) (FT); Snake River Basin, Middle Columbia River, Lower Columbia
6 River, and Upper Willamette River steelhead (*O. mykiss*) (FT); SW Washington and Columbia
7 River coastal cutthroat trout (*O. clarki clarki*) (federal proposed threatened); Snake River
8 sockeye salmon (*O. nerka*) (FE); upper Columbia River steelhead (*O. mykiss*) (FE); and
9 Columbian white-tailed deer (*Odocoileus virginianus leucurus*) (FE).

10
11 State sensitive vulnerable (“OSV”), sensitive critical (“OSC”), and sensitive undetermined
12 (“OSU”) species that are not federally- listed include Pacific lamprey (*Lampetra ayresi*) (OSV),
13 purple martin (*Progne subis*) (OSC), Oregon vesper sparrow (*Pooecetes gramineus affinis*)
14 (OSC), fringed myotis (*Myotis thysanodes*) (OSV), long-eared myotis (*Myotis evotis*) (OSU),
15 long-legged myotis (*Myotis volans*) (OSU), silver-haired myotis (*Lasionycteris noctivagans*)
16 (OSU), mountain quail (*Oreortyx pictus*) (OSU), and northern red-legged frog (*Rana aurora*)
17 (OSU). (ASC, Exhibit P, Table P-6, pages P-35 and P-36.)

18
19 Federal species of concern (“FSC”) not state-listed include Yuma myotis (*Myotis yumanensis*),
20 band-tailed pigeon (*Columba fasciata*), green sturgeon (*Acipenser medirostris*), and river
21 lamprey (*Lampetra ayresi*).

22 23 **Potential Impacts on Animals**

24 Construction and Operation

25 Peregrine Falcon (State-Listed Endangered): Peregrine falcons may occur in the analysis area
26 year-round. However, the database search did not indicate active nests or sightings within five
27 miles of the proposed facility. The site may provide foraging opportunities for peregrine falcons.
28 (ASC, Exhibit Q, page Q-10.)

29
30 Impacts to peregrine falcons may result from an increase in disturbance, loss of foraging or
31 perching habitat, and electrocution or collisions with power lines.

32
33 Potential foraging area would be lost. However, it is not likely that this loss would adversely
34 affect the species. The removal of two large trees would potentially reduce perching trees on the
35 energy facility site. However, this loss would also be negligible. Impacts from electrocution by
36 contact with the transmission lines would be reduced, because Summit/Westward would design
37 and construct the Summit/Westward on-site electrical transmission line according to *Suggested*
38 *Practices for Raptor Protection on Power Lines* (Avian Power Line Interaction Committee,
39 1996). Steps implemented by Summit/Westward would include visual line enhancers and
40 adequate spacing for the wires to minimize collisions and electrocution hazards (ASC, Exhibit Q,
41 page Q-10). In addition, the offsite overhead line would be placed within an existing utility
42 corridor and would parallel an existing transmission line, further limiting the chances for
43 collision. Therefore, the Council finds that there will likely be no impact to this species.

1 Bald Eagle (State-Listed Threatened, Federal-Listed Threatened): Bald eagles are present in the
2 analysis area year-round. Their habitat depends on proximity to water, availability of food, and
3 suitable trees for nesting, perching, and roosting. Five nest territories have been identified by the
4 ONHP database within two miles of the facility site and related or supporting facilities. The
5 closest territory to the energy facility is on Crims Island, about 1.1 miles from the proposed
6 energy facility site. Other nest territories are more than two miles from the energy facility site.

7
8 No known communal winter roost sites are present within the analysis area. (ASC, Exhibit Q,
9 page Q-11.)

10
11 Impacts to bald eagles may result from an increase in disturbance; loss of foraging, nesting or
12 perching habitat; and electrocution or collision with transmission lines.

13
14 Summit/Westward completed a noise impact analysis for the Crims Island nest site. The
15 anticipated increase in ambient noise is two dBA. (ASC, Exhibit Q, page Q-12.) In addition, the
16 nest is outside the designated buffer of 0.25 mile and 0.50 mile direct line-of-sight to
17 construction activities. Foraging, nesting, and perching habitat would not be adversely affected
18 by the energy facility. Bald eagle foraging habitat is not limited in this area of the Columbia
19 River, and the loss of foraging area would be negligible. The removal of two large trees would
20 potentially reduce perching trees on the energy facility site. However, this loss would also be
21 negligible. Impacts from electrocution by contact with the transmission lines would be reduced,
22 because Summit/Westward would design and construct the transmission lines according to
23 *Suggested Practices for Raptor Protection on Power Lines* (Avian Power Line Interaction
24 Committee, 1996). Therefore, the Council finds that there will likely be no impact to this species.

25
26 Oregon Spotted Frog (State Sensitive Critical, Federal-Listed Candidate): The proposed energy
27 facility site does not contain potential habitat for the Oregon spotted frog. This species is
28 believed to be extirpated, and no known occurrences are within two miles of the analysis area.
29 Maintenance of the drainage ditches on the site precludes potential habitat for the frog, and the
30 species was not observed during field surveys. Therefore, the Council finds that there will likely
31 be no impact to this species.

32
33 Columbian White-Tailed Deer (State Sensitive, Federal-Listed Endangered): Columbian white-
34 tailed deer occur on the energy facility site year-round. The energy facility site provides foraging
35 habitat and a travel corridor between Crims Island and the poplar farms to the south and west of
36 the project area. (ASC, Exhibit Q, page Q-9.) In addition, the grasslands provide resting and
37 hiding cover. (ODFW, May 14, 2001.)

38
39 Potential impacts to the deer include loss of habitat, disturbance from the construction of the
40 energy facility, and disturbance from human activity, noise, traffic, and cooling tower emissions.

41
42 Summit/Westward estimates a loss of 28 acres of Columbian white-tailed deer habitat due to the
43 construction of the energy facility. (ASC, Exhibit Q, page Q-10.) Deer may be temporarily
44 displaced during the construction of the facility, which is estimated to take 18 to 24 months.
45 During operation, median (L₅₀) noise levels within about one-half mile of the energy facility site

1 are expected to measure 42 dBA or less.. The deer have acclimated to the existing Beaver Power
2 Plant and associated noise and would be likely to adapt to any increase in noise level associated
3 with operation of the proposed energy facility.

4
5 Cooling tower emissions could produce ground fogs and salt deposition. As discussed in sections
6 D.5.c and F.1.c of this Order, the Council finds that ground-level fogging and salt deposition will
7 not have significant impacts on fish or wildlife habitat.

8
9 Anadromous Salmonid Species (State- and Federal-Listed Threatened, Endangered, and
10 Candidate): The lower Columbia River and its tributaries contain several at-risk anadromous
11 salmonid fish species, including steelhead, Chinook and chum salmon, and coastal cutthroat
12 trout. The river is a migratory corridor and may provide seasonal rearing habitat for some
13 species. The energy facility site is within range of tidal influence but is protected from the river
14 by a dike. The drainage ditches are separated from the Columbia River by a levee and pump
15 station, which acts as a barrier to fish and protects the area from 100-year flood levels.

16
17 Potential impacts to fish include construction and operation of the energy facility and related or
18 supporting facilities. Potential impacts include (1) temporary and localized increase in turbidity
19 and sediment during in-water construction, (2) potential for wastewater discharge and storm
20 water contaminants, (3) effects on the Columbia River by proposed withdrawal of water, and
21 (4) potential for flooding events to dislocate fish species.

22
23 The project will not require construction within the Columbia River or its tributaries. In addition,
24 no direct water withdrawals will occur, as water for the project will come from groundwater
25 wells hydraulically connected to the Columbia River. Drainage and irrigation ditches are
26 separated from the river by a levee and pump, thereby reducing potential contaminants from
27 entering the river and its tributaries and also reducing the chances of flooding. Work will also be
28 done in the dry season, further limiting potential impacts. Wastewater will be handled on-site and
29 permitted in accordance with Columbia County and DEQ requirements. For these reasons, the
30 Council finds that construction and operation of the facility are not likely to result in a significant
31 impact to listed fish and wildlife species.

32 Retirement

33
34 The Council requires Summit/Westward to submit a retirement plan before permanent shutdown
35 of the facility. The plan would include measures to minimize impacts to fish and wildlife habitat
36 and to ensure no impacts to threatened or endangered species. For these reasons, the Council
37 finds that retirement of the facility is not likely to result in a significant impact to listed fish and
38 wildlife species.

39 **Avoidance/Mitigation Measures:**

40 Summit/Westward proposes measures to avoid potential impacts to listed fish and wildlife
41 species by:

- 42
43
44 1. Using best-available design and technology to avoid and minimize potential for
45 raptor collisions with and electrocution by transmission lines;

- 1 2. Conducting work in the ditches during the dry season;
- 2 3. Establishing a conservation easement over 28 acres of land adjacent to the energy
- 3 facility for deer and waterfowl habitat;
- 4 4. Planting suitable species for deer forage and cover in five acres of the easement;
- 5 5. Providing an open travel corridor for deer between Crims Island and the tree
- 6 farms;
- 7 6. Managing the open field areas for foraging opportunities for deer and waterfowl;
- 8 7. Restoring disturbed areas with an approved native seed mix;
- 9 8. Using noise reduction technology to minimize any increase in ambient noise;
- 10 9. Designating areas for driving and parking of vehicles;
- 11 10. Implementing a Worker Environmental Awareness Program;
- 12 11. Complying with all applicable DEQ water quality standards;
- 13 12. Minimizing wetland impacts; and
- 14 13. Implementing appropriate actions to prevent spills and waste materials from
- 15 entering waterways or wetlands.
- 16

17 The Council adopts the following conditions in the site certificate:

- 18
- 19 (1) **Before beginning construction of the Summit/Westward on-site electrical**
- 20 **transmission line, the certificate holder shall employ measures to protect**
- 21 **raptors in the design and construction of any related or supporting**
- 22 **transmission line. It shall design all energized transmission conductors with**
- 23 **visual line enhancers and adequate spacing to reduce the potential for**
- 24 **electrocution of raptors or other birds as per *Suggested Practices for Raptor***
- 25 ***Protection on Power Lines* (Avian Power Line Interaction Committee, 1996).**
- 26
- 27 (2) **The certificate holder shall seed disturbed areas with a seed mix approved by**
- 28 **ODFW.**
- 29
- 30 (3) **The certificate holder shall implement a Worker Environmental Awareness**
- 31 **Program (ASC, Exhibit Q, page Q-26).**
- 32
- 33 (4) **The certificate holder shall perform no in-water construction within the**
- 34 **Columbia River or its tributaries.**
- 35

36 **Conclusion**

37 The Council finds that Summit/Westward meets the threatened and endangered species standard,
38 OAR 345-022-0070.

40 **D.9. CARBON DIOXIDE STANDARD FOR BASE LOAD GAS PLANTS, OAR 345-024-0550**

41

42 “To issue a site certificate for a base load gas plant, the Council must find that the

43 net carbon dioxide emissions rate of the proposed facility does not exceed 0.675

44 pounds of carbon dioxide per kilowatt hour of net electric power output, with

45 carbon dioxide emissions and net electric power output measured on a new and

1 clean basis. For a base load gas plant designed with power enhancement or
2 augmentation options that increase the capacity and the heat rate of the plant
3 above the capacity and heat rate that the base load gas plant can achieve on a new
4 and clean basis, the Council shall apply the standard for a non-base load power
5 plant, as described in OAR 345-024-0590, to the incremental carbon dioxide
6 emissions from the designed operation of the power enhancement or
7 augmentation options. The Council shall determine whether the base load carbon
8 dioxide emissions standard is met as follows:

9 “(1) The Council shall determine the gross carbon dioxide emissions that are
10 reasonably likely to result from the operation of the proposed energy
11 facility. The Council shall base such determination on the proposed design
12 of the energy facility. The Council shall adopt site certificate conditions to
13 ensure that the predicted carbon dioxide emissions are not exceeded on a
14 new and clean basis;

15 “(2) For any remaining emissions reduction necessary to meet the applicable
16 standard, the applicant may elect to use any of the means described in
17 OAR 345-024-0560, or any combination thereof. The Council shall
18 determine the amount of carbon dioxide emissions reduction that is
19 reasonably likely to result from the applicant's offsets and whether the
20 resulting net carbon dioxide emissions meet the applicable carbon dioxide
21 emissions standard;

22 “(3) If the applicant elects to comply with the standard using the means
23 described in OAR 345-024-0560(2), the Council shall determine the
24 amount of carbon dioxide emissions reduction that is reasonably likely to
25 result from each of the proposed offsets based on the criteria in
26 subsections (a) to (c). In making this determination, the Council shall not
27 allow credit for offsets that have already been allocated or awarded credit
28 for carbon dioxide emissions reduction in another regulatory setting. The
29 fact that an applicant or other parties involved with an offset may derive
30 benefits from the offset other than the reduction of carbon dioxide
31 emissions is not, by itself, a basis for withholding credit for an offset. The
32 Council shall base its determination of the amount of carbon dioxide
33 emission reduction on the following criteria:

34 “(a) The degree of certainty that the predicted quantity of carbon
35 dioxide emissions reduction will be achieved by the offset;

36 “(b) The ability of the Council to determine the actual quantity of
37 carbon dioxide emissions reduction resulting from the offset,
38 taking into consideration any proposed measurement, monitoring
39 and evaluation of mitigation measure performance;

40 “(c) The extent to which the reduction of carbon dioxide emissions
41 would occur in the absence of the offsets;

42 “(4) Before beginning construction, the certificate holder shall notify the Office
43 of Energy in writing of its final selection of a gas turbine vendor and shall
44 submit a written design information report to the Office of Energy
45 sufficient to verify the facility's designed new and clean heat rate and its

1 nominal electric generating capacity at average annual site conditions for
2 each fuel type. In the report, the certificate holder shall include the
3 proposed limits on the annual average number of hours of facility
4 operation on distillate fuel oil, if applicable. In the site certificate, the
5 Council may specify other information to be included in the report. The
6 Office of Energy shall use the information the certificate holder provides
7 in the report as the basis for calculating, according to the site certificate,
8 the amount of carbon dioxide emissions reductions the certificate holder
9 must provide under OAR 345-024-0560.”

10
11 **Discussion**

12 The proposed energy facility is a base load gas plant as defined in OAR 345-001-0010(7).
13 Therefore, “the Council must find that the net carbon dioxide emissions rate of the proposed
14 facility does not exceed 0.675 pounds of carbon dioxide per kilowatt hour of net electric power
15 output, with carbon dioxide emissions and net electric power output measured on a new and
16 clean basis.” OAR 345-024-0550.

17
18 In its original ASC, Summit/Westward also requested that the Council approve its use of power
19 enhancement or augmentation in the form of duct burning (“power augmentation technologies”),
20 which would be fueled with natural gas. However, Summit/Westward later reported that the
21 Project would not use duct burning at average annual conditions.

22
23 For duct burning to be considered power augmentation under the rules, it must “increase the
24 capacity and heat rate of the plant above the capacity and heat rate that the base load gas plant
25 can achieve on a new and clean basis.” (OAR 345-024-0550.) Summit/Westward reported that
26 it would use duct burning in warmer weather and that the capacity of the plant using duct
27 burning would not exceed the capacity of the base load operation on a new and clean basis.
28 Therefore, even though the Summit Project would be designed to use duct burning,
29 Summit/Westward is not currently planning to configure the energy facility in a manner that
30 meets the definition of power augmentation.

31
32 However, it would take only a small change in the design of the facility for the duct burning to
33 become power augmentation under Council rules. Therefore, the Council requires the certificate
34 holder to report before beginning construction the contracted capacity and heat rate of the plant
35 operating on duct burning to see whether it qualifies as power augmentation. The Council adopts
36 contingency conditions that would apply to power augmentation if the certificate holder later
37 decides to employ it.

38
39 The Council applies the carbon dioxide emissions standard for non-base load power plants to the
40 incremental carbon dioxide emissions from the designed operation of the power augmentation
41 technologies. OAR 345-024-0590. Thus the Council must find that those incremental emissions
42 do not exceed 0.675 pounds of carbon dioxide per kilowatt-hour of net electric power output,
43 with carbon dioxide emissions and net electric output measured on a new and clean basis.
44

1 **Compliance.** Pursuant to ORS 469.373(1)(e), Summit/Westward proposes to comply with the
2 carbon dioxide emissions standard of OAR 345-024-0550 by making payments in compliance
3 with the monetary path payment requirement of OAR 345-024-0710. It proposes to provide
4 selection and contracting funds and offset funds to The Climate Trust as allowed by OAR 345-
5 024-0560(3) and OAR 345-024-0600(3).

6
7 **Calculations.** The following discussion and Table D.9-1 show the example carbon dioxide
8 emissions calculations for the base load plant without the power augmentation technologies.
9 However, these should be considered as representative of the proposed design. The conditions
10 relating to the carbon dioxide standard and other conditions in the site certificate allow the
11 certificate holder flexibility in its choice of equipment vendor and the facility's design, within
12 the parameters allowed pursuant to OAR 345-027-0050.

13
14 Before beginning construction of the Project, the certificate holder will submit to the Office an
15 affidavit with the design parameters that are necessary to calculate accurately the carbon dioxide
16 emissions from the Project, pursuant to OAR 345-024-0550. Those parameters determine the
17 specific amount of the monetary path payment for offset funds and selection and contracting
18 funds required.

19
20 **Gross Carbon Dioxide Emissions.** The Council must determine the carbon dioxide emissions
21 that are reasonably likely to result from the operation of the proposed energy facility. For a base
22 load gas plant, OAR 345-001-0010(7) requires calculations of the annual gross carbon dioxide
23 emissions of the facility and total carbon dioxide emissions for 30 years at 100 percent capacity.
24 "Gross carbon dioxide emissions" is defined in OAR 345-001-0010(25):

25
26 "Gross carbon dioxide emissions" means the predicted carbon dioxide emissions
27 of the proposed energy facility. The Council shall measure the gross carbon
28 dioxide emissions of a fossil-fueled power plant on a new and clean basis***."

29
30 The gross carbon dioxide emissions shown in Table D.9-1 as "Total CO₂ Emissions" are 109,404
31 million pounds.

32
33 **Gross Carbon Dioxide Emissions Rate.** The gross carbon dioxide emissions rate is expressed
34 as pounds of carbon dioxide per kilowatt-hour of net electric power output. "Net electric power
35 output" is defined as "the electric energy produced or capacity made available for use excluding
36 electricity used in the production of electrical energy." OAR 345-001-0010(33). The gross
37 carbon dioxide emissions rate for the facility is 0.804 pound of carbon dioxide per kilowatt-hour
38 ("lb. CO₂/kWh").

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Table D.9-1
CO₂ Emissions for Summit/Westward Project
(without power augmentation)

A. Parameters for Generating Plant	
Net Power Output (kW)	518,000
New and Clean Heat Rate (Btu/kWh) (HHV)	6,869
Annual Hours of Operation	8,760
B. Application of CO₂ Standard	
Net Power Output (kW)	518,000
Capacity Factor	100%
Fuel	natural gas
Annual Hours of Operation	8,760
Annual Generation (million kWh/yr)	4,538
Deemed Life of Plant (years)	30
Total Plant Output (million kWh for 30 years)	136,130
Heat Rate (Btu/kWh) (HHV)	6,869
CO ₂ Emissions Rate (lb. CO ₂ /Btu)	0.000117
Total CO ₂ Emissions (million lb.)	109,404
Gross CO ₂ Emissions Rate (lb. CO ₂ /kWh)	0.804
CO ₂ Standard (lb. CO ₂ /kWh)	0.675
Excess CO ₂ Emissions (lb. CO ₂ /kWh)	0.129
Excess Tons CO ₂ (million tons over 30 years)	8.758
Offset Fund Rate (\$/ton CO ₂)	\$0.85
Offset Funds Required (\$ million)	\$7.444
Selection and Contracting Funds (\$ million)	\$0.348
Monetary Path Requirement (\$ million)	\$7.792

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Excess Carbon Dioxide Emissions. To apply the standard, the Council must determine the excess carbon dioxide emissions rate of the energy facility and the excess carbon dioxide emissions for 30 years. Excess carbon dioxide emissions are those in excess of net carbon dioxide emissions allowed under the standard. Table D.9-1 shows the required offsets as “Excess Tons CO₂.” Estimated excess carbon dioxide emissions for the Project are about 8.8 million tons.

Average Annual Site Conditions. OAR 345-024-0550 requires that the carbon dioxide emissions and net power output be measured on a “new and clean basis.” The Council’s definition of “new and clean basis” specifies average annual site conditions, including temperature, barometric pressure, and relative humidity. OAR 345-001-0010(35). The average annual site conditions for the base load plant, based on data at the adjacent Beaver Power Plant (ASC, Exhibit Y, page Y-4; Attachment Y-4), are as follows:

Temperature	50.9 degrees F
Barometric Pressure	1,017 mb
Relative Humidity	78 percent

1 **Estimated Heat Rate and Capacity.** To determine the carbon dioxide emissions from the
2 Summit Project, it is necessary to know the estimated heat rate and capacity of the facility
3 measured on a new and clean basis for each fuel the facility will use. Summit/Westward
4 proposes to use only natural gas as fuel for the proposed energy facility. Summit/Westward
5 estimates that the base load net power output will be about 518 MW, with a new and clean heat
6 rate of 6,869 Btu/kWh, higher heating value (ASC, Exhibit Y, Attachment Y-4).
7

8 **Monetary Path.** As a special criteria facility sited pursuant to ORS 469.373, Summit/Westward
9 must comply with the carbon dioxide emissions standard by providing offset funds to The
10 Climate Trust as allowed by OAR 345-024-0560(3) and OAR 345-024-0600(3) and in
11 compliance with the monetary path payment requirement of OAR 345-024-0710. Determination
12 of the actual monetary path payment requirement will be in accordance with site certificate
13 conditions.
14

15 Using the parameters that Summit/Westward provided as a representative plant, Table D.9-1
16 multiplies the excess tons of carbon dioxide for the Project by the offset fund rate, \$0.85 per ton
17 of carbon dioxide. That determines the offset funds needed for the monetary path payment
18 requirement, about \$7.44 million.
19

20 The table then applies the formula in OAR 345-024-0710(4) to determine the selection and
21 contracting funds. The selection and contracting funds for the base load plant total about \$0.35
22 million.
23

24 The combination of offset funds and selection and contracting funds constitutes the monetary
25 path payment requirement. The total monetary path payment requirement for the estimated
26 parameters of the facility is about \$7.8 million (2002 dollars).
27

28 **Supplemental Offset Funds.** If the certificate holder decides to add power augmentation, as
29 defined in OAR 345-024-0550, there will be a different situation regarding selection and
30 contracting funds and offset funds. If the certificate holder is required to provide supplemental
31 offset funds following a five-year reporting period, pursuant to OAR 345-024-0590(6), the
32 selection and contracting funds would be calculated based on the supplemental offset funds
33 alone. The amount of required offset funds would be significantly less than the amount for the
34 base load plant, and the selection and contracting funds would be correspondingly smaller.
35

36 To provide flexibility to add power augmentation and to ensure adequate selection and
37 contracting funds, the Council finds that the basis for the minimum payment for supplemental
38 selection and contracting funds for each five-year reporting period in which supplemental offset
39 funds would be required should be at the rate of 20 percent of the first \$250,000 in offset funds
40 and 4.286 percent of the value of any offset funds in excess of that amount. However, the
41 Council does not set a specific minimum payment amount for supplemental selection and
42 contracting funds. The Council adopts the calculation procedure in Condition (7)(b), below,
43 pursuant to OAR 345-024-0710(4).
44

1 **Qualified Organization.** Summit/Westward proposes to provide offset funds and funds for the
2 cost of selecting and contracting for offsets to The Climate Trust. The Council has previously
3 found that The Climate Trust is a “qualified organization” in matters relating to seven other
4 energy facilities. The Council finds that The Climate Trust continues to meet the requirements of
5 a “qualified organization,” as defined by OAR 345-001-0010(46), for the following reasons:
6

- 7 • The Climate Trust is exempt from federal taxation under section 501(c)(3) of the
8 Internal Revenue Code. By letter dated November 19, 1997, the Internal Revenue
9 Service (“IRS”) determined that The Climate Trust (then the Oregon Climate
10 Trust) is exempt from taxation under section 501(c)(3). By letter dated August 3,
11 2002, the IRS affirmed The Climate Trust’s exempt status.
12
- 13 • The Climate Trust is incorporated in the state of Oregon. Summit/Westward
14 attached the Articles of Incorporation, filed with the Oregon Secretary of State.
15
- 16 • The Articles of Incorporation of The Climate Trust require that offset funds
17 received from certificate holders in accordance with ORS 469.503(2) be used for
18 offsets projects that will result in direct reduction, elimination, sequestration, or
19 avoidance of carbon dioxide emissions. The Articles of Incorporation of The
20 Climate Trust require that decisions on the use of such funds be made by a body
21 composed of seven voting members of which (1) three are appointed by the
22 Council, (2) three are Oregon residents appointed by the Bullitt Foundation or an
23 alternative environmental organization named by the board of directors, and (3)
24 one member is appointed by applicants for site certificates that are subject to ORS
25 469.503(2)(d) and holders of such site certificates.
26
- 27 • The Climate Trust has made available on an annual basis, beginning after the first
28 year of operation, a signed opinion of an independent certified public accountant
29 stating that the qualified organization’s use of funds pursuant to ORS 469.503
30 conforms with generally accepted accounting principles.
31
- 32 • The Climate Trust has provided the Council with documentation showing that
33 The Climate Trust has complied with ORS 469.503(2)(e)(K)(v) by entering into
34 contracts obligating at least 60 percent of the offset funds received from the
35 Klamath Cogeneration Project (the “KCP”) and the Hermiston Power Project
36 within two years after the commencement of construction of those facilities.
37
- 38 • The Climate Trust has entered into contracts obligating 87 percent of the
39 \$1,197,697 offset fund received from the KCP. (The Climate Trust letter to the
40 Office, June 20, 2002.) The Climate Trust is currently in the process of entering
41 into contracts for additional offset funds it has received. For the KCP funds, The
42 Climate Trust has complied with the requirements of OAR
43 345-001-0010(1)(46)(f) and (ORS 469.503(2)(e)(K)(vi)) for contracts it has
44 obligated.
45

1 **Financial Instrument.** OAR 345-024-0710(1) requires that the applicant supply a “bond or
2 letter of credit in a form reasonably acceptable to the Council to ensure the payment of the offset
3 funds***.” To fulfill this requirement, Summit/Westward has stated it will provide a bond or
4 letter of credit.

5
6 **Disbursement of Offset Funds.** OAR 345-0240-0710(3) provides:

7
8 “When the certificate holder receives written notice from the
9 qualified organization certifying that the qualified organization is
10 contractually obligated to pay any funds to implement offsets using
11 the offset funds, the certificate holder shall make the requested
12 amount available to the qualified organization unless the total of
13 the amount requested and any amounts previously requested
14 exceeds the offset funds, in which case the certificate holder shall
15 make available only the remaining amount of the offset funds***.”
16

17 The Council discussed its interpretation of this rule in the Final Order for the Umatilla
18 Generating Project, pages 79-81. The rule requires the certificate holder to pay any funds to
19 implement offsets when the qualified organization provides it written notice that it is
20 contractually obligated to implement offsets. The rule further imposes a restriction on the
21 qualified organization that it cannot request more than the total amount of offset funds for which
22 the certificate holder is obligated. The rule permits the qualified organization to request a partial
23 payment of the total offset funds when it requests offset funds.
24

25 In the Final Order for the Umatilla Generating Project, the Council found that OAR 345-024-
26 0710(3) provides a milestone for the release of offset funds to the qualified organization and that
27 the qualified organization may, at its discretion, request, and the certificate holder shall disburse,
28 up to the full amount of offset funds available when the qualified organization has reached the
29 milestone of being contractually obligated for any amount of money to implement offsets using
30 the offset funds. The Council adopts conditions to implement the disbursement of offset funds
31 consistent with its findings in the Final Order for the Umatilla Generating Project and further
32 adopt conditions that make explicit the disbursement mechanism for all funds of the monetary
33 path payment requirement.
34

35 **Proposed Conditions.** The following proposed conditions implement OAR 345-024-0550
36 through OAR 345-024-0710. Many conditions address the mechanics of calculating the excess
37 carbon dioxide emissions and the monetary path payment requirement. They address the
38 information that the certificate holder must provide the Council or the Office at various times.
39 They also address the milestones for providing any increased or supplemental monetary path
40 payments, if necessary. The conditions incorporate both base load operations and the potential
41 use of power augmentation technologies, if the certificate holder later decides to employ such
42 technologies.
43

44 To retain the value of the monetary path payment, the proposed conditions index the payment to
45 2002 dollars from the date the Council grants the site certificate to the time funds are disbursed

1 to The Climate Trust. A condition provides that the index is the U.S. Gross Domestic Product
2 Implicit Price Deflator, Chain-Weight, as published by the Oregon Department of Administrative
3 Services in its series, "Oregon Economic and Revenue Forecast." That series provides a forecast
4 of the Implicit Price Deflator for several quarters in advance. That forecast is useful because
5 historical data that the federal Bureau of Economic Analysis publishes are usually finalized more
6 than a quarter late. Historical data are never current when The Climate Trust would have to draw
7 down a bond or letter of credit. The Council adopts this index as the most generally applicable.

8
9 As discussed above, the rules require that the certificate holder provide a bond or third-party
10 letter of credit as financial assurance that it will make available the monetary path payments. In
11 addition, the Council adopts conditions that specify the details of how the certificate holder
12 would disburse funds to The Climate Trust. The conditions include Attachment A, which would
13 be made part of the site certificate.

14
15 Furthermore, the Council adopts a condition that allows the certificate holder to exercise the
16 flexibility that is built into the rules for minor changes. Specifically, OAR 345-027-0050
17 provides:

18
19 “(2) Notwithstanding section (1), the Council does not require a site certificate
20 amendment if the proposed change would not violate any condition of the
21 site certificate and is a change:

22 “(a) To an electrical generation facility that would increase the
23 electrical generating capacity and would not increase the number
24 of electric generators at the site, change fuel type, increase fuel
25 consumption by more than 10%, or enlarge the facility site;”

26
27 OAR 345-027-0050 also requires information from the certificate holder about how the proposed
28 changes would comply with applicable standards and a determination by the Office or the
29 Council that an amendment is not required.

30
31 If a certificate holder had not yet made monetary path payment requirement funds available to a
32 qualified organization, it might take advantage of the flexibility that OAR 345-027-0050(2)(a)
33 offers when it certifies the capacity and heat rate of the facility. However, an increase in capacity
34 and heat rate after a certificate holder had already complied with the conditions relating to the
35 carbon dioxide standard might necessarily require an amendment.

36
37 In lieu of requiring an amendment for incremental increases that otherwise fall within the limits
38 specified in OAR 345-027-0050(2)(a) after a certificate holder has already complied with the
39 conditions relating to the carbon dioxide standard before beginning construction, the Council
40 adopts a condition that applies the site certificate's carbon dioxide standard condition, along with
41 the applicable carbon dioxide standard and monetary offset rate at the time that the Council
42 makes a determination that an amendment is not otherwise required. This approach would
43 achieve the same result as an amendment allowing a later increase in capacity and heat rate, but
44 it uses the structure provided by the site certificate conditions and updates it to current standards
45 without requiring an amendment process.

1
2 OAR 345-001-0010(35) includes in the definition of “new and clean basis” the requirement that
3 the Council determine the new and clean basis “by a 100-hour test that the site certificate holder
4 completes within the first 12 months of commercial operation of the energy facility.” The
5 purpose of this requirement is to determine the capacity and heat rate for compliance with the
6 carbon dioxide standard for base load gas plants, OAR 345-024-0560. However, before
7 commercial operation, the facility will undergo a 100-hour “commercial acceptance test” that
8 achieves the same purpose as the test to be conducted “within the first 12 months of commercial
9 operation.” There is no need to perform a second test that duplicates the first, although the rule
10 and statute give the certificate holder the opportunity to perform the 100-hour test any time
11 within the first 12 months. To avoid redundancy, the Council adopts a condition that permits the
12 certificate holder to use the 100-hour commercial acceptance test for determining the capacity
13 and heat rate on a new and clean basis.
14

15 The Council adopts the following conditions in the site certificate for compliance with the carbon
16 dioxide standard, along with Attachment A to this Order:
17

- 18 **(1) Before beginning construction of the facility, the certificate holder shall**
19 **submit to The Climate Trust a bond or letter of credit in the amount of the**
20 **monetary path payment requirement (in 2002 dollars) as determined by the**
21 **calculations set forth in Condition (3) and based on the estimated heat rates**
22 **and capacities certified pursuant to Condition (4) and as adjusted in**
23 **accordance with the terms of this site certificate pursuant to Condition (3)(c).**
24 **For the purposes of this site certificate, the “monetary path payment**
25 **requirement” means the offset funds determined pursuant to OAR**
26 **345-024-0550 and -0560 and the selection and contracting funds that the**
27 **certificate holder must disburse to The Climate Trust, as the qualified**
28 **organization, pursuant to OAR 345-024-0710 and this site certificate. The**
29 **offset fund rate for the monetary path payment requirement shall be**
30 **\$0.85 per ton of carbon dioxide (in 2002 dollars). The calculation of 2002**
31 **dollars shall be made using the Index set forth in Condition D.3(4)(a) and as**
32 **required below in subsection (g).**
33
- 34 **(a) The form of the bond or letter of credit and identity of the issuer shall**
35 **be subject to approval by the Council.**
36
- 37 **(b) The form of the Memorandum of Understanding (“MOU”) between**
38 **the certificate holder and The Climate Trust establishing the**
39 **disbursement mechanism to transfer selection and contracting funds**
40 **and offset funds to The Climate Trust shall be substantially in the**
41 **form of Attachment A to this site certificate.**
42
- 43 **(c) Either the certificate holder or The Climate Trust may submit to the**
44 **Council for the Council’s resolution any dispute between the**
45 **certificate holder and The Climate Trust that concerns the terms of**

1 the bond, letter of credit, MOU concerning the disbursement
2 mechanism for the monetary path payments, or any other issues
3 related to the monetary path payment requirement. The Council's
4 decision shall be binding on all parties.
5

6 (d) The bond or letter of credit shall remain in effect until such time as
7 the certificate holder has disbursed the full amount of the monetary
8 path payment requirement to The Climate Trust. The certificate
9 holder may reduce the amount of the bond or letter of credit
10 commensurate with payments it makes to The Climate Trust. The
11 bond or letter of credit shall not be subject to revocation before
12 disbursement of the full monetary path payment requirement.
13

14 (e) In the event that the Council approves a new certificate holder for the
15 energy facility:
16

17 (A) The new certificate holder shall submit to the Council for the
18 Council's approval the form of a bond or letter of credit that
19 provides comparable security to the bond or letter of credit of
20 the current certificate holder. The Council's approval of a new
21 bond or letter of credit will not require a site certificate
22 amendment.
23

24 (B) The new certificate holder shall submit to the Council for the
25 Council's approval the form of an MOU between the new
26 certificate holder and The Climate Trust that is substantially
27 in the form of Attachment A to this site certificate. In the case
28 of a dispute between the new certificate holder and The
29 Climate Trust concerning the disbursement mechanism for
30 monetary path payments or any other issues related to the
31 monetary path payment requirement, either party may submit
32 the dispute to the Council for the Council's resolution as
33 provided in Condition (1)(c). Council approval of a new MOU
34 will not require a site certificate amendment.
35

36 (f) If calculations pursuant to Condition (5) demonstrate that the
37 certificate holder must increase its monetary path payments, the
38 certificate holder shall increase the bond or letter of credit sufficiently
39 to meet the adjusted monetary path payment requirement within the
40 time required by Condition (3)(c). Alternately, the certificate holder
41 may disburse any additional required funds directly to The Climate
42 Trust within the time required by Condition (3)(c).
43

44 (g) The amount of the bond or letter of credit shall increase annually by
45 the percentage increase in the Index and shall be prorated within the

1 year to the date of disbursement to The Climate Trust from the date
2 of Council approval of the site certificate.

3
4 (2) **The certificate holder shall disburse to The Climate Trust offset funds and**
5 **selection and contracting funds as requested by The Climate Trust. The**
6 **certificate holder shall make disbursements in response to requests from The**
7 **Climate Trust in accordance with subsections (a), (b), and (c).**

8
9 (a) **The certificate holder shall disburse all selection and contracting**
10 **funds to The Climate Trust prior to beginning construction.**

11
12 (b) **Upon notice pursuant to subsection (c), The Climate Trust may**
13 **request from the issuer of the bond or letter of credit the full amount**
14 **of all offset funds available or it may request partial payment of offset**
15 **funds at its sole discretion. Notwithstanding the specific amount of**
16 **any contract to implement an offset project, The Climate Trust may**
17 **request up to the full amount of offset funds the certificate holder is**
18 **required to provide to meet the monetary path payment requirement.**

19
20 (c) **The certificate holder shall provide that the issuer of the bond or**
21 **letter of credit disburse offset funds to The Climate Trust within three**
22 **business days of a request by The Climate Trust for the offset funds in**
23 **accordance with the terms of the bond or letter of credit. The Climate**
24 **Trust may request disbursement of offset funds by providing notice to**
25 **the issuer of the bond or letter of credit that The Climate Trust has**
26 **executed a letter of intent to acquire an offset project.**

27
28 (3) **The certificate holder shall submit all monetary path payment requirement**
29 **calculations to the Office for verification in a timely manner before**
30 **submitting a bond or letter of credit for Council approval and before**
31 **entering into an MOU with The Climate Trust. The certificate holder shall**
32 **use the contracted design parameters for capacities and heat rates that it**
33 **reports pursuant to Condition (4) to calculate the estimated monetary path**
34 **payment requirement, along with the estimated annual hours of operation**
35 **with operate power augmentation technologies. The certificate holder shall**
36 **use the Year One Capacities and Year One Heat Rates that it reports for the**
37 **facility pursuant to Condition (5) to calculate whether it owes additional**
38 **monetary path payments.**

39
40 (a) **The net carbon dioxide emissions rate for the base load gas plant shall**
41 **not exceed 0.675 pounds of carbon dioxide per kilowatt-hour of net**
42 **electric power output, with carbon dioxide emissions and net electric**
43 **power output measured on a new and clean basis, as defined in OAR**
44 **345-001-0010.**

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- (b) **If the certificate holder uses power augmentation technologies, as defined in Council rules, the net carbon dioxide emissions rate for incremental emissions for the facility operating with power augmentation technologies that increase the capacity and heat rate of the facility above the capacity and heat rate that it can achieve as a base load gas plant on a new and clean basis (“power augmentation technologies”) shall not exceed 0.675 pounds of carbon dioxide per kilowatt-hour of net electric power output, with carbon dioxide emissions and net electric power output measured on a new and clean basis, as the Council may modify such basis pursuant to Condition (4)(d).**

 - (c) **When the certificate holder submits the Year One Test reports required in Condition (5), it shall increase its monetary path payments if the calculation using reported data shows that the adjusted monetary path payment requirement exceeds the monetary path payment requirement for which the certificate holder had provided a bond or letter of credit prior to beginning construction, pursuant to Condition (1). The certificate holder shall submit its calculations to the Office of Energy for verification.**
 - (A) **The certificate holder shall make the appropriate calculations and fully disburse any increased funds directly to The Climate Trust within 30 days of filing the Year One Test reports.**

 - (B) **In no case shall the certificate holder diminish the bond or letter of credit it provided before beginning construction or receive a refund from The Climate Trust based on the calculations made using the Year One Capacities and the Year One Heat Rates.**

 - (4) **The certificate holder shall include an affidavit certifying the heat rates and capacities reported in subsections (a) and (b).**
 - (a) **Before beginning construction of the facility, the certificate holder shall notify the Council in writing of its final selection of a gas turbine vendor and heat recovery steam generator vendor and shall submit written design information to the Council sufficient to verify the base load gas plant’s designed new and clean heat rate (higher heating value) and its net power output at the average annual site condition.**

 - (b) **Before beginning construction of the energy facility, the certificate holder shall submit written design information to the Council sufficient to verify the facility’s designed new and clean heat rate and**

1 its net power output at the average site condition at the times the
2 certificate holder intends to operate with duct burning.

3
4 (c) **If the net power output and heat rate that the certificate holder**
5 **reports pursuant to subsection (b) indicate that the Project will use**
6 **power augmentation technologies, before beginning construction of**
7 **the energy facility, the certificate holder shall specify the estimated**
8 **annual average hours that it will operate the power augmentation**
9 **technologies.**

10
11 (d) **If the Project uses power augmentation technologies, upon a timely**
12 **request by the site certificate holder, the Council may approve**
13 **modified parameters for testing the power augmentation technologies**
14 **on a new and clean basis, pursuant to OAR 345-024-0590(1). The**
15 **Council’s approval of modified testing parameters for power**
16 **augmentation technologies shall not require a site certificate**
17 **amendment.**

18
19 (5) **Within the first 12 months of commercial operation of the facility, the**
20 **certificate holder shall conduct a 100-hour test at full power without power**
21 **augmentation technologies (“Year One Test-1”) and, if appropriate, a test at**
22 **full power with power augmentation technologies (“Year One Test-2”). A**
23 **100-hour test performed for purposes of the certificate holder’s commercial**
24 **acceptance of the facility shall suffice to satisfy this condition in lieu of testing**
25 **after beginning commercial operation.**

26
27 (a) **Year One Test-1 shall determine the actual heat rate (“Year One Heat**
28 **Rate-1”) and the net electric power output (“Year One Capacity-1”)**
29 **on a new and clean basis, without degradation, with the results**
30 **adjusted for the average annual site condition for temperature,**
31 **barometric pressure, and relative humidity, and using a rate of**
32 **117 pounds of carbon dioxide per million Btu of natural gas fuel**
33 **pursuant to OAR 345-001-0010(35).**

34
35 (b) **If appropriate, Year One Test-2 shall determine the actual heat rate**
36 **(“Year One Heat Rate-2”) and net electric power output (“Year One**
37 **Capacity-2”) for the facility operating with power augmentation**
38 **technologies, without degradation, with the results adjusted for the**
39 **average site condition for temperature, barometric pressure, and**
40 **relative humidity at the times the certificate holder intends to operate**
41 **power augmentation technologies, and using a rate of 117 pounds of**
42 **carbon dioxide per million Btu of natural gas fuel pursuant to OAR**
43 **345-001-0010(35). The full power test shall be 100 hours’ duration**
44 **unless the Council has approved a different duration pursuant to**
45 **Condition (4)(d).**

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- (c) **The certificate holder shall notify the Office of Energy at least 60 days before conducting the tests required in sub-sections (a) and (b), as appropriate.**
 - (d) **Before conducting the tests required in subsections (a) and (b), as appropriate, the certificate holder shall, in a timely manner, provide to the Office a copy of the protocol for conducting the tests.**
 - (e) **Within two months after completing the Year One Test(s), the certificate holder shall provide to the Council a report of the results of the Year One Test(s).**
- (6) **If calculations pursuant to Condition (7) demonstrate that the certificate holder must supplement its monetary path payments (“supplemental monetary path payment requirement”), the certificate holder shall provide a bond or letter of credit sufficient to meet the supplemental monetary path payment requirement within the time required by Condition (7)(b). The bond or letter of credit shall not be subject to revocation before disbursement of the supplemental monetary path payment requirement. Alternately, the certificate holder may disburse in cash any such supplemental monetary path payments directly to The Climate Trust within the time required by the Condition (7).**
- (7) **If the certificate holder uses power augmentation technologies, the certificate holder shall submit all supplemental monetary path payment requirement calculations to the Office for verification. The certificate holder shall use the Year One Capacity-2 and Year One Heat Rate-2 that it reports for the facility pursuant to Condition (5)(b) to calculate whether it owes supplemental monetary path payments, pursuant to subsections (a) and (b).**
- (a) **Each five years after beginning commercial operation of the facility (“five-year reporting period”), the certificate holder shall report to the Office the annual average hours the facility operated with power augmentation technologies during that five-year reporting period, pursuant to OAR 345-024-0590(6). The certificate holder shall submit five-year reports to the Office within 30 days of the anniversary date of beginning commercial operation of the facility.**
 - (b) **If the Office determines that the facility exceeds the projected net total carbon dioxide emissions calculated pursuant to Conditions (4) and (5), prorated for five years, during any five-year reporting period described in subsection (a), the certificate holder shall offset excess emissions for the specific reporting period according to subsection (A) and shall offset the estimated future excess emissions according to**

1 subsection (B), pursuant to OAR 345-024-0600(4). The certificate
2 holder shall offset excess emissions using the monetary path as
3 described in OAR 345-024-0710, except that selection and contracting
4 funds shall equal 20 percent of the value of any offset funds up to the
5 first \$250,000 (in 2002 dollars) and 4.286 percent of the value of any
6 offset funds in excess of \$250,000 (in 2002 dollars). The certificate
7 holder shall disburse the funds to The Climate Trust within 30 days
8 after notification by the Office of the amount that the certificate
9 holder owes.

10
11 (A) In determining the excess carbon dioxide emissions that the
12 certificate holder must offset for a five-year period, the Office
13 shall apply OAR 345-024-0600(4)(a). The certificate holder shall
14 pay for the excess emissions at \$0.85 per ton of carbon dioxide
15 emissions (in 2002 dollars). The Office shall notify the certificate
16 holder and The Climate Trust of the amount of payment
17 required, using the monetary path, to offset excess emissions.
18

19 (B) The Office shall calculate estimated future excess emissions and
20 notify the certificate holder of the amount of payment required,
21 using the monetary path, to offset them. To estimate excess
22 emissions for the remaining period of the deemed 30-year life of
23 the facility, the Office shall use the parameters specified in OAR
24 345-024-0600(4)(b). The certificate holder shall pay for the
25 estimated excess emissions at \$ 0.85 per ton of carbon dioxide (in
26 2002 dollars). The Office shall notify the certificate holder of the
27 amount of payment required, using the monetary path, to offset
28 future excess emissions.
29

30 (8) The combustion turbine for the base load gas plant and power augmentation
31 technologies, as appropriate, shall be fueled solely with pipeline-quality
32 natural gas or with synthetic gas with a carbon content per million Btu no
33 greater than pipeline-quality natural gas.
34

35 (9) With respect to incremental capacity and fuel consumption increases for
36 which the certificate holder has not previously complied with the carbon
37 dioxide standard, the certificate holder shall comply substantially with
38 Conditions (1) through (8) in lieu of the Council's requiring an amendment,
39 provided that:
40

41 (a) The Council determines, pursuant OAR 345-027-0050, that the
42 certificate holder does not otherwise require an amendment, and
43 further provided that:
44

1 **(b) The certificate holder shall meet the appropriate carbon dioxide**
2 **emissions standard and monetary offset rate in effect at the time the**
3 **Council makes its determination pursuant to OAR 345-027-0050.**
4

5 **Conclusion**

6 The Council finds that Summit/Westward meets the carbon dioxide standard for base load gas
7 plants, OAR 345-024-0550.

8
9 **E. SITING STANDARDS SUBJECT TO CONDITIONS**

10
11 **E.1. INTRODUCTION**

12 A proposed energy facility that qualifies for expedited review under ORS 469.373 need not
13 prove compliance with the following standards:

- 14
15 OAR 345-022-0020 Structural
16 OAR 345-022-0080 Scenic and Aesthetic
17 OAR 345-022-0090 Historic, Archaeological and Cultural Resources
18 OAR 345-022-0100 Recreation
19 OAR 345-022-0110 Public Services
20 OAR 345-022-0120 Waste Minimization

21
22 The Council may not deny a site certificate based on these standards. However, the Council may
23 impose conditions based on these standards.

24
25 **E.2. STRUCTURAL STANDARD, OAR 345-022-0020**

26 The standard requires that to issue a site certificate, the Council must find that:

- 27 “(a) The applicant, through appropriate site-specific study, has adequately
28 characterized the site as to seismic zone and expected ground motion and
29 ground failure, taking into account amplification, during the maximum
30 credible and maximum probable seismic events; and
31 “(b) The applicant can design, engineer, and construct the facility to avoid
32 dangers to human safety presented by seismic hazards affecting the site
33 that are expected to result from all maximum probable seismic events. As
34 used in this rule ‘seismic hazard’ includes ground shaking, landslide,
35 liquefaction, lateral spreading, tsunami inundation, fault displacement, and
36 subsidence;
37 “(c) The applicant, through appropriate site-specific study, has adequately
38 characterized the potential geological and soils hazards of the site and its
39 vicinity that could, in the absence of a seismic event, adversely affect, or
40 be aggravated by, the construction and operation of the proposed facility;
41 and
42 “(d) The applicant can design, engineer and construct the facility to avoid
43 dangers to human safety presented by the hazards identified in subsection
44 (c).”
45

1 For a facility that qualifies for expedited review under ORS 469.373, the Council
2 may not require compliance with this standard, but it can impose conditions based
3 on the standard.
4

5 **Discussion**

6 The standard has four parts. Briefly, the first two parts require the applicant to identify and
7 protect against hazards presented by certain seismic events. The third and fourth parts require the
8 applicant to identify and protect against hazards that could be initiated or aggravated without a
9 seismic event. The discussion below is organized to match the four parts of the standard.
10

11 **Site Characterization—Seismic Hazards**

12 The standard requires the applicant to identify the “maximum credible” and “maximum
13 probable” seismic events and characterize the site in terms of seismic hazard. The maximum
14 credible earthquake (“MCE”) is defined as the largest earthquake capable of being produced
15 from a source, structure, or region under the known tectonic framework. It is a rational and
16 believable event that can be supported by the known geologic and seismological data. The
17 maximum probable earthquake (“MPE”) is defined as the largest earthquake that could occur
18 under the known tectonic framework with a 10 percent chance of being exceeded in a 50-year
19 period. The applicant must characterize the hazard from the MCE and MPE and show that the
20 facility can be designed to protect against hazards from the MPE. The Summit Project site is
21 located in Uniform Building Code (“UBC”) Seismic Zone 3, characterized by expected bedrock
22 accelerations of up to 0.3 g.
23

24 Summit/Westward retained consultant Squier and Associates (“Squier”) to perform geological
25 and geotechnical investigations at the proposed site. Squier conducted a literature review to
26 identify known active or potentially active faults within 62 miles (100 kilometers) of the
27 proposed energy facility site. Primary reference sources included Seismic Design Mapping:
28 State of Oregon (Geomatrix Consultants, 1995), National Seismic Hazard Maps (Frankel et al.
29 1996), and additional references.
30

31 The literature review revealed no known crustal faults within 31 miles (50 kilometers) of the
32 proposed energy facility site that meet the criteria for being demonstrably active or capable
33 faults. Between 31 and 62 miles (50 and 100 kilometers) of the proposed site, there are several
34 faults that are considered potentially active (greater than or equal to 50 percent probability) and
35 that show some evidence of geologic movement within the last two million years. The Mount
36 Angel Fault that is considered potentially active lies 70 miles (113 kilometers) from the proposed
37 site.
38

39 The major earthquake sources that could affect the site are associated with the Juan de Fuca Plate
40 being thrust beneath the North American Plate along the Oregon coast, west of the shore. This
41 produces a very large fault referred to as the Cascadia Subduction Zone (the “CSZ”). The surface
42 expression of the CSZ lies 80 to 110 miles (130 to 180 kilometers) to the west of the proposed
43 energy facility site. Three types of earthquakes are known to occur within the CSZ: shallow
44 crustal events, deeper subcrustal intraplate events, and large interface events. The interface event
45 results when accumulated stresses between the Juan de Fuca and North American plates are

1 released along the entire coast, producing a very large (magnitude 9) earthquake. In addition,
2 there is sporadic seismic activity measuring magnitude 5.0 to magnitude 5.5 (M5.0 to M5.5) in
3 the vicinity of the Portland-Vancouver and Mount St. Helens areas.

4
5 For shallow crustal events, estimated cumulative annual frequency relationships show the
6 proposed site is in an area that may be subject to a MPE M6.0 event. Squier recommended that a
7 M6.5 event be considered credible and used for design purposes. This M6.5 event is larger than
8 the minimum crustal event required by the Oregon Structural Specialty Code. Estimated peak
9 ground acceleration for the potential M6.5 crustal earthquake at a distance of 18 kilometers and a
10 depth of 20 kilometers is median 0.18 g and mean 0.22 g. These accelerations are in the range for
11 UBC Seismic Zone 3.

12
13 The second major type of earthquake that could affect the proposed energy facility site is a
14 deeper intraplate earthquake occurring within the subducting Juan de Fuca Plate at depths
15 between 40 and 60 kilometers. The proposed energy facility site lies within a potential source
16 area for the deeper intraplate earthquake, and an intraplate earthquake could occur directly below
17 the site at a depth of 50 kilometers. The maximum expected magnitude for an intraplate
18 earthquake is between M7.0 and M7.5. In its evaluation, Squier assumed a MPE of M7.0
19 occurring directly beneath the site at a depth of 50 kilometers and a larger MCE of M7.5
20 occurring at a distance of 50 kilometers. Estimated peak ground acceleration for the potential
21 M7.0 intraplate earthquake at a distance of 0 kilometer and a depth of 50 kilometers is mean 0.20
22 g. Estimated peak ground acceleration for the potential M7.5 intraplate earthquake at a distance
23 of 50 kilometers and a depth of 50 kilometers is mean 0.20 g. These accelerations are generally
24 below the range set forth for UBC Seismic Zone 3.

25
26 The third major type of earthquake that could affect the proposed energy facility site is an
27 interface or subduction zone earthquake that could take place at the boundary of the Juan de Fuca
28 and the North American plates. Geologic data suggest that a M9+ earthquake is possible from an
29 interface event off the coast of Oregon or Washington. The best magnitude estimate for the most
30 likely event ranges between M8.0 and M9.0, depending on the length of the ruptures. For its
31 seismic hazard analysis, Squier considered both an M8.0 event occurring directly off the coast
32 and a large M8.8 event at further distances. Estimated peak ground acceleration for the potential
33 M8.0 subduction zone earthquake at a distance of 53 kilometers and a depth of 40 kilometers is
34 mean 0.25 g. Estimated peak ground acceleration for the potential M8.8 subduction zone
35 earthquake at a distance of 100 kilometers and a depth of 20 kilometers is mean 0.27 g. Because
36 the subduction zone earthquakes would generate the highest expected ground accelerations at the
37 proposed energy facility site, they must govern the seismic design of the energy facility. Note
38 that for this large event, the MPE and MCE are the same.

39 40 *Site-Specific Geotechnical Investigation*

41 In addition to identifying the major earthquake sources, Squier performed borings, penetration
42 tests, shear wave velocity tests, downhole seismic tests, and tests for shear strength. The
43 investigation showed that the site is on a series of sandy and silty alluvial deposits, reaching
44 bedrock at a depth of nearly 350 feet. The predicted ground motions and site-specific soil profile

1 were used as input to a SHAKE analysis, which is used to predict ground response during the
2 design basis seismic event.

3
4 The geotechnical investigations described in the ASC were sufficient to provide site
5 characteristics, identify general foundation requirements, and evaluate soil stability. Squier
6 recommended additional geotechnical investigation to support final design. The additional
7 investigation would support recommendations for ground improvements and preload to reduce
8 the effect of seismically based hazards.

9
10 Hazards associated with the MPE and MCE included strong ground shaking, liquefaction, and
11 other hazards such as faulting, ground deformation, landslide, and lateral spread. Of these, strong
12 ground motion and liquefaction were the major hazards. The other hazards listed above were
13 considered unlikely due to the level terrain and lack of surface faulting. Squier also considered
14 the possibility of tsunamis and “seiches,” which occur when large bodies of water are set in
15 motion. Both are considered unlikely to affect the proposed facility because of its distance from
16 the coast and from Bradbury Slough.

17 18 *Liquefaction*

19 The analysis indicates that the near-surface noncohesive silt and sand and the sandy silt down to
20 a depth of about 60 feet below the proposed energy facility site may be susceptible to
21 liquefaction. If liquefaction occurs, some of the soil above the depth of 60 feet may be expected
22 to respond with a loss of strength. In localized areas, water carrying sand and silt may flow to the
23 ground surface, forming sand boils. During the period of liquefaction, the low strength of the soil
24 dampens the energy of the seismic waves, thereby reducing the ground motion acceleration at the
25 surface and shifting the frequency of the seismic waves to a longer period. The primary impact is
26 expected to be postliquefaction settlement of the specific soil layers. The effects of liquefaction
27 can be mitigated by engineering design, including deep foundation systems that extend below the
28 depth of liquefaction.

29 30 *Seismically Induced Settlement*

31 One of the potential consequences of liquefaction is seismically induced ground settlement. The
32 magnitude of settlement is in the range of 10 to 15 inches. Such settlement, if not mitigated,
33 could result in damage to structures not supported by piles, concrete slabs on grade, and buried
34 infrastructure, such as nonwelded pipelines. The amount of seismically induced settlement would
35 be expected to be variable across the site.

36 37 *Site Amplification*

38 Because of the large thickness of the soil profile (estimated to be 360 feet), the site may
39 experience attenuation of the bedrock ground motions. This may result in ground motion at the
40 surface being less than the bedrock input motion. However, in response to comments from the
41 Oregon Department of Geology and Mineral Industries (“DOGAMI”), Squier noted that it did
42 not take credit for attenuation in the estimated mean accelerations. Squier also noted that
43 Summit/Westward could improve the ground response at the site by engineered ground
44 improvements, but no credit was taken for any such improvements in calculating the expected
45 ground response spectra at the site.

1
2 In summary, based on the predicted ground accelerations due to the CSZ event, the site is
3 appropriately characterized as UBC Seismic Zone 3. The design basis ground acceleration for the
4 MPE and MCE should be 0.27 g. Based on the soil profile at the site, the major hazards are
5 strong ground shaking, liquefaction, and differential settlement.
6

7 **Facility Design for Seismic Hazards**

8 Squier concluded that the proposed energy facility can be engineered, designed, and constructed
9 to avoid dangers to human safety from seismic hazards and that the facility can be designed to
10 meet the requirements of the UBC and the Oregon Structural Specialty Code. Specific seismic
11 design recommendations include using a conservative S_F soil profile, developing a site-specific
12 site amplification factor, and supporting all heavy structures on deep pile foundations founded
13 below potential liquefaction depths. Squier recommended additional site-specific geotechnical
14 investigations at the final design stage to help specify foundation design and ground
15 improvements. The ASC states that plant design will include a seismic motion monitoring
16 system, which will shut off gas supply before liquefaction damages the facility and will gather
17 detailed data on the site's seismic response.
18

19 The Council adopts the following conditions in the site certificate:
20

- 21 (1) **Before beginning construction of the facility, the certificate holder shall**
22 **report to the Office and the Oregon Department of Geology and Mineral**
23 **Industries (“DOGAMI”) with the results of final site-specific geotechnical**
24 **investigations and recommendations for design of the energy facility and**
25 **related or supporting facilities.**
26
- 27 (2) **The certificate holder shall design, engineer, and construct the facility to**
28 **avoid dangers to human safety presented by seismic hazards affecting the site**
29 **that are expected to result from the maximum probable seismic event**
30 **(“MPE”). For the Summit Project site, the MPE shall be considered to be a**
31 **M8.8 subduction zone earthquake at a distance of 100 kilometers and a depth**
32 **of 20 kilometers. As used in this condition, “seismic hazard” includes ground**
33 **shaking, landslide, liquefaction, lateral spreading, tsunami inundation, fault**
34 **displacement, and subsidence. Design parameters shall meet or exceed those**
35 **prescribed by the Oregon Structural Specialty Code for UBC Seismic Zone 3**
36 **and shall include an S_F soil profile.**
37
- 38 (3) **The certificate holder shall notify the Office, the State Building Codes**
39 **Division, and DOGAMI promptly if site investigations or trenching reveal**
40 **that conditions differ significantly from those described in the ASC. After the**
41 **Office receives the notice, the Council may require the certificate holder to**
42 **consult with DOGAMI and the State Building Codes Division and to propose**
43 **mitigation actions.**
44

- 1 **(4) Plant design shall be substantially in accordance with the recommendations**
2 **at section 11 of ASC Exhibit H, “Site Specific Geological and Soil Stability**
3 **Assessment for the Summit/Westward Energy Project.” Plant design shall**
4 **include a seismic motion monitoring system that will shut off gas supply**
5 **before liquefaction damages the facility and will gather detailed data on the**
6 **site’s seismic response.**
7

8 **Site Characterization— Nonseismic Geological and Soils Hazards**

9 Nonseismic hazards at the site are relatively minor when compared with hazards presented by the
10 MPE. The proposed site is located on the Columbia River floodplain. The floodplain is low and
11 flat, and there is no risk of landslide or wind or water erosion hazards. The energy facility site is
12 protected from flooding by a levee system constructed by the U.S. Army Corps of Engineers and
13 maintained by the Beaver Drainage District. The upstream levees are built to an elevation of 17.5
14 feet, which provides 4.7 feet of freeboard for a 100-year flood.
15

16 The energy facility site is underlain by Udipsamments and Crims silt loam soils. The
17 Udipsamments soil is the dominant soil across the proposed energy facility site. Udipsamments
18 soils are very deep, somewhat excessively drained soils that formed in recent, sandy dredge spoil
19 along the Columbia River. The Crims silt loam occurs in a small area locally along the northern
20 boundary of the site and outside of the proposed construction area. Crims silt loam is a deep,
21 very poorly drained organic soil that occurs in low areas of the floodplains of the Columbia
22 River. Subsurface explorations within the construction area of the proposed energy facility site
23 showed only scattered to numerous organics in the silt strata. The silt is not high enough in
24 organic content to be characterized as “organic silt,” in an engineering sense, and it is not
25 significant in the design, engineering, and construction of the proposed energy facility.
26

27 **Facility Design for Nonseismic Geological and Soils Hazards**

28 Squier concluded that the proposed facility can be engineered, designed, and constructed to
29 avoid dangers associated with nonseismic geologic hazards. There are no shrink/swell soils on
30 the proposed energy facility site. Construction of the energy facility is not expected to cause any
31 increase in landslides, wind or water erosion potential, or flooding risk.
32

33 Construction of the facility would require excavations for pipelines and underground structures.
34 Summit/Westward proposes to use conventional construction dewatering and shoring systems to
35 lower ground water levels and maintain stable trench conditions. In addition, Summit/Westward
36 affirms that it will follow state and local ordinances and OSHA requirements for open trenching
37 and excavations. OOE considers these methods adequate to protect against construction hazards.
38

39 The Council finds that, for nonseismic hazards, the appropriate conditions are those
40 recommended under the soil protection standard at Section D.5 of this Order.
41

42 **Conclusion**

43 The Council adopts the foregoing conditions with respect to the structural standard OAR 345-
44 022-0020.

1
2 **E.3. SCENIC AND AESTHETIC VALUES, OAR 345-022-0080**

3 The standard requires that to issue a site certificate, the Council must find that
4 “***the design, construction, operation and retirement of the facility, taking into
5 account mitigation, are not likely to result in significant adverse impact to scenic
6 and aesthetic values identified as significant or important in applicable federal
7 land management plans or in local land use plans in the analysis area as described
8 in the project order.”
9

10 For a facility that qualifies for expedited review under ORS 469.373, the Council
11 may not require compliance with this standard, but it can impose conditions based
12 on the standard.
13

14 **Discussion**

15 The analysis area for scenic and aesthetic values is the area within five miles of the site.
16

17 The proposed energy facility would not be visible from scenic or aesthetic resources identified in
18 applicable federal and local land use plans, including the Resource Management Plan for the
19 Salem District of the U.S. Bureau of Land Management, the Columbia County Comprehensive
20 Plan, and the City of Clatskanie Comprehensive Plan. In addition, the energy facility would not
21 be visible from scenic or aesthetic resources identified in comprehensive plans in force in
22 Cowlitz and Wakhiakum counties in the state of Washington.
23

24 The site is located in Columbia County, Oregon, at a bend of the Columbia River. The river is
25 located about one-fourth mile from the northern site boundary. To the northeast is Bradbury
26 Slough, an inlet from the Columbia River. Crims Island and Gull Island are located in the
27 Columbia River north of the site. The southern and western site boundaries are located within the
28 Port Westward Industrial Area. The elevation of the site is 25 feet (mean sea level). Because of
29 the elevation and terrain of the site, it is barely visible from the Columbia River.
30

31 The Project would be visible from homes along the Columbia River in Washington and would
32 decrease the rural character of the view from those homes. These homes are not identified as a
33 scenic resource in any comprehensive land use plan, but residents did identify viewshed issues as
34 a concern. The proposed energy facility site is in an area zoned primarily for industrial use and
35 currently occupied by the Beaver Power Plant.
36

37 A landscaping plan, incorporating trees (cottonwood, elderberry, Douglas fir, and cedar) and
38 shrubs on some of the boundaries of the energy facility site, would screen some elements of the
39 proposed energy facility from view, such as the ponds. Larger elements of the proposed energy
40 facility, including the cooling towers, stacks, and turbine hall, would not be screened from view
41 due to their height. The cooling tower plume would be visible from points along U.S. Highway
42 30 in Oregon and from residences along the river shore in Washington, but would not
43 significantly affect scenic resources identified in the county comprehensive plans in Oregon or
44 Washington.
45

1 Activities associated with construction of the energy facility would temporarily affect the view
2 from homes and roads within direct line of sight. During the period of construction, cranes and
3 scaffolding would be present, and construction dust and lighting would be noticeable from
4 vantage points near the energy facility. Mitigation measures, including moving equipment when
5 not in use, applying water to control dust, and using shielding and directive devices on lighting
6 during nighttime construction, may reduce these impacts substantially.
7

8 The Council adopts the following conditions in the site certificate:
9

- 10 (1) **During construction of the energy facility, the certificate holder shall use**
11 **directing and shielding devices on lights to minimize off-site glare. When**
12 **there is no nighttime construction activity, the certificate holder shall**
13 **minimize nighttime lighting consistent with safety and security requirements.**
14
- 15 (2) **During operation of the energy facility, the certificate holder shall use**
16 **directing and shielding devices on lights to minimize off-site glare. When**
17 **possible, lights shall remain off except during emergency or maintenance**
18 **situations and as needed for safety and security.**
19
- 20 (3) **After completion of construction of the energy facility, the certificate holder**
21 **shall employ a landscaping plan incorporating trees and shrubs to screen**
22 **elements of the energy facility, excepting the cooling towers, exhaust stacks,**
23 **and turbine hall, from view. This condition will be considered satisfied if the**
24 **landscaping plan is reviewed and approved by Columbia County Land Use**
25 **Services pursuant to county ordinance CCZO 1550.12.**
26
- 27 (4) **During construction of the facility, the certificate holder shall control dust**
28 **through the application of water, or by other equally effective method.**
29

30 **Conclusion**

31 The Council adopts the foregoing conditions with respect to scenic and aesthetic values, OAR
32 345-022-0080.
33

34 **E.4. HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES, OAR 345-022-0090**

35 The standard requires that to issue a site certificate, the Council must find that
36 “*** the construction, operation and retirement of the facility, taking into account
37 mitigation, are not likely to result in significant adverse impacts to:

- 38 “(a) Historic, cultural or archaeological resources that have been listed
39 on, or would likely be listed on the National Register of Historic
40 Places;
41 “(b) For a facility on private land, archaeological objects, as defined in
42 ORS 358.905(1)(a), or archaeological sites, as defined in ORS
43 358.905(1)(c); and
44 “(c) For a facility on public land, archaeological sites, as defined in
45 ORS 358.905(1)(c).”

1
2 For a facility that qualifies for expedited review under ORS 469.373, the Council
3 may not require compliance with this standard, but it can impose conditions based
4 on the standard.
5

6 **Discussion**

7 The analysis area for historical, cultural and archaeological resources is the site and immediate
8 vicinity.
9

10 **Potential National Register of Historic Places Sites.** No historic or cultural resources listed or
11 eligible for listing on the National Register of Historic Places are located in the analysis area.
12

13 **Archaeological Objects and Archaeological Sites.** An “archaeological site” as defined by ORS
14 358.905(1)(c) is a location in Oregon that contains a group of archaeological objects and their
15 contextual associations. An “archaeological object” as defined by ORS 358.905(1)(a) is an
16 individual object that is at least 75 years old and meets several other criteria. An archaeological
17 site will contain archaeological objects, but an isolated or individual archaeological object is not
18 an archaeological site.
19

20 Six archaeological sites have been identified in the Port Westward area, although no
21 archaeological sites have been found within the energy facility site or in corridors for related or
22 supporting facilities. Four of the identified archaeological sites are listed as Native American
23 campsites; one site is listed as the possible location of the historic Winship Settlement of 1810,
24 and one site is listed as a Native American village that may have been recorded by Lewis and
25 Clark in 1805. The archaeological site nearest the Summit Project is a Native American campsite
26 located about one kilometer to the west of the energy facility site.
27

28 The cultural resources report prepared for Summit/Westward by Archaeological Investigations
29 Northwest (“AINW”) concludes that due to the presence of dredge spoil and low-lying ground,
30 the energy facility site is not an area likely to contain archaeological sites. Nearly all of the
31 archaeological sites previously recorded in the analysis area were found on higher ground and
32 close to the Columbia River. None of the previously recorded sites are close to the project area,
33 no prehistoric or historic-period artifacts were found during a pedestrian survey of the site, and
34 there was no evidence of archaeological deposits. Related and supporting pipelines would be
35 installed largely in existing roadways.
36

37 AINW contacted the Confederated Tribes of the Grand Ronde Community of Oregon, the
38 Confederated Tribes of the Siletz Indian Reservation of Oregon, and the Chinook Tribe in
39 Washington regarding any potential cultural resources in the vicinity of the proposed energy
40 facility site. None of these authorities identified any Native American cultural resources within
41 the analysis area.
42

43 While no archaeological sites were identified in the analysis area for the Summit Project,
44 Summit/Westward affirms that in the event unanticipated archaeological or historical resources
45 are encountered during construction of the energy facility, all ground-disturbing activity within

1 the vicinity of the find would be halted and the Oregon State Historic Preservation Office
2 (“SHPO”) would be promptly notified to ensure compliance with relevant state and federal laws
3 and regulations.

4
5 The Council adopts the following conditions in the site certificate:

- 6
7 **(1) Before beginning construction of the facility, the certificate holder shall**
8 **instruct construction personnel in the identification of cultural materials and**
9 **shall direct them to halt all ground-disturbing activities in the vicinity of a**
10 **find until a qualified archaeologist can evaluate the significance of the find**
11 **and recommend an appropriate course of action.**
12
13 **(2) During construction of the facility, in the event any artifacts or other cultural**
14 **materials are identified, the certificate holder shall cease all ground-**
15 **disturbing activities until a qualified archaeologist can evaluate the**
16 **significance of the find. If the archaeologist determines that the materials are**
17 **significant, the certificate holder shall make recommendations for mitigation**
18 **in consultation with the Oregon State Historic Preservation Officer**
19 **(“SHPO”) and other appropriate parties. The certificate holder shall not**
20 **restart work in the affected area until it has complied with the archaeological**
21 **permit requirements administered by SHPO.**
22
23 **(3) The certificate holder shall allow monitoring on reasonable terms and**
24 **conditions by the Confederated Tribes of the Grand Ronde Community of**
25 **Oregon, the Confederated Tribes of the Siletz Indian Reservation of Oregon,**
26 **and the Chinook Tribe in Washington of earth-moving activities within any**
27 **areas with a potential for containing archaeological remains.**
28
29 **(4) Before beginning construction of the energy facility or any related or**
30 **supporting facilities, the certificate holder shall notify the Confederated**
31 **Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes**
32 **of the Siletz Indian Reservation of Oregon, and the Chinook Tribe in**
33 **Washington and provide their representatives the opportunity to be available**
34 **for periodic on-site monitoring during construction activities.**
35

36 **Conclusion**

37 The Council adopts the foregoing conditions with respect to historic, cultural, and archaeological
38 resources, OAR 345-022-0090.

39 40 **E.5. RECREATION, OAR 345-022-0100**

41 The standard requires that to issue a site certificate, the Council must find that
42 “*** the design, construction and operation of a facility, taking into account
43 mitigation, are not likely to result in a significant adverse impact to important
44 recreational opportunities in the analysis area as described in the project order.

1 The Council shall consider the following factors in judging the importance of a
2 recreational opportunity:

- 3 “(a) Any special designation or management of the location;
- 4 “(b) The degree of demand;
- 5 “(c) Outstanding or unusual qualities;
- 6 “(d) Availability or rareness;
- 7 “(e) Irreplaceability or irretrievability of the opportunity.”

8
9 For a facility that qualifies for expedited review under ORS 469.373, the Council
10 may not require compliance with this standard, but it can impose conditions based
11 on the standard.

12 13 **Discussion**

14 The analysis area for recreation is the area within five miles of the site, including recreational
15 opportunities on the Columbia River. Existing recreational opportunities within the analysis area
16 include County Line Park (2.5 miles NW), Willow Grove Beach Park and Boat Launch (4 miles
17 SE), Clatskanie City Park (5 miles S), Lewis and Clark Heritage Canoe Trail (5 miles S), Beaver
18 Boat Ramp (5 miles S), Columbia River (1 mile N), Gull Island (6,000 feet N), Crims Island
19 (4,000 feet N), and Bradbury Slough (2,000 feet N).

20
21 Noise can affect recreation. At a distance of 2,000 feet to the north, Bradbury Slough is the
22 recreational opportunity nearest the energy facility site. Noise from the energy facility would not
23 be significant at this location, because the ambient noise level would increase by less than 10 dB.
24 For the same reason, noise from the energy facility would not be significant at any of the other
25 recreational opportunities in the analysis area. Fishing and hiking opportunities may exist within
26 the audible range of the energy facility. Because the energy facility is located in an industrial
27 area, any noise added by the energy facility would be unlikely to adversely affect such casual
28 recreational opportunities.

29
30 Pipelines for water and natural gas would be buried and would have no adverse impact on
31 existing recreational opportunities.

32
33 Visible vapor plumes from the cooling towers and exhaust stacks would occur during periods of
34 low temperature and high humidity. These plumes would be most visible during the winter
35 months. They could be visible at night when the energy facility is illuminated. There are other
36 visible plumes in the area resulting from the existing Beaver Power Plant. The energy facility
37 would not significantly alter the visual character of the general area and would have a negligible
38 impact on existing recreational opportunities.

39 40 **Conclusion**

41 The Council does not adopt any special conditions with respect to recreation, OAR 345-022-
42 0100.

1 **E.6. PUBLIC SERVICES, OAR 345-022-0110**

2
3 The standard requires that to issue a site certificate, the Council must find that
4 “*** the construction and operation of the facility, taking into account mitigation,
5 are not likely to result in significant adverse impact to the ability of public and
6 private providers within the analysis area described in the project order to provide
7 sewers and sewage treatment, water, storm water drainage, solid waste
8 management, housing, traffic safety, police and fire protection, health care and
9 schools.”

10
11 For a facility that qualifies for expedited review under ORS 469.373, the Council
12 may not require compliance with this standard, but it can impose conditions based
13 on the standard.

14
15 **Discussion**

16 The analysis area for public services is the area within 20 miles of the site, particularly
17 communities along the Columbia River and U.S. Highway 30. Communities most likely to be
18 affected by construction and operation of the proposed energy facility include Clatskanie,
19 Columbia County, and the Kelso/Longview area.

20
21 The proposed energy facility site is located in the Port Westward Industrial Area. The Port is
22 developing the Port Westward Industrial Area and intends to provide public services, including
23 water and wastewater disposal, to its tenants.

24
25 Summit/Westward expects construction of the energy facility and related or supporting facilities
26 to take about 18 to 22 months. The construction work force would range from 40 to 130
27 employees during the first several months of mobilization and site preparation. The peak work
28 force would comprise about 385 employees. Operation of the energy facility would require about
29 20 permanent workers. Therefore, Summit/Westward does not expect significant increases in
30 permanent population as a result of construction and operation of the proposed energy facility.

31
32 **Sewers and Sewage Treatment.** No local government or private company currently provides
33 these services in the Port Westward Industrial Area. During construction, Summit/Westward
34 would install portable, self-contained toilets to contain sanitary waste. A local disposal company
35 would be hired to pump the toilets on a regular basis.

36
37 During operation of the proposed energy facility, Summit/Westward would treat sanitary sewage
38 in an on-site sewage system designed to meet Columbia County and DEQ requirements. The on-
39 site sanitary waste system requires a Water Pollution Control Facilities (“WPCF”) permit from
40 DEQ. Requirements for that permit are addressed at Section F.1.d of this Order.

41
42 The Council adopts the following condition for the site certificate:

- 43
44 **(1) During construction of the facility, the certificate holder shall use portable,**
45 **self-contained toilets and shall have them pumped on a regular basis.**

1
2 **Water.** The Port would provide water for operation of the proposed energy facility from Ranney
3 collector wells to be constructed near the mouth of Bradbury Slough, where it connects with the
4 Columbia River. Summit/Westward would not be required to obtain new water rights or permits
5 to accommodate the energy facility's average (3,560 acre-feet per year) and maximum (4,350
6 acre-feet per year) rates of consumption. The water would be provided under the Port's existing
7 Oregon Water Right Permit No. 53677. The Port has applied to the OWRD for new points of
8 diversion under its existing water right, and water used by the energy facility would be accounted
9 for as part of the Port's existing surface water right. The new diversion point is a third-party
10 permit, as addressed in Section D.2 of this Order.

11
12 Summit/Westward would install a 600,000-gallon raw water tank and water treatment facility on
13 the energy facility site to satisfy its domestic water needs. Water stored in this tank would be
14 treated to produce potable water for supplying drinking water to the office, control rooms, and
15 maintenance building.

16
17 Summit/Westward would require the construction contractor to implement an SWPPP
18 substantially similar to the draft plan submitted as Attachment O-1 to the ASC. Storm water
19 discharge is addressed in the requirements for the DEQ 1200-C permit, a federally delegated
20 permit outside Council jurisdiction. The Council does not adopt any additional conditions for this
21 topic, because the appropriate recommendations are already included under the Council's soil
22 protection standard, at Section D.5 of this Order.

23
24 **Solid Waste Management.** Summit/Westward estimates it would produce about 310 tons of
25 solid waste during construction of the energy facility. About 296 tons of this waste would be
26 recycled using the services of Hudson Garbage, a provider of once-a-week recycling services for
27 businesses in the Clatskanie area. Hudson Garbage would recycle scrap metal, paper, cardboard,
28 aluminum cans, and glass bottles.

29
30 During operation of the energy facility, Summit/Westward estimates it would produce about 20
31 to 30 tons of solid waste per year. The zero-discharge facility proposed by Summit/Westward
32 would produce about 3,000 gallons of sludge per day, or about five truckloads per week.
33 Summit/Westward would ship this waste to an approved landfill.

34
35 Columbia County Land Development Services Department commented that the Columbia
36 County controls flow of solid waste through its transfer station. The County has not indicated
37 that the above quantities would adversely affect its ability to manage solid waste disposal.

38
39 **Housing.** Summit/Westward reports there are about 17 motels in the analysis area with a total of
40 350 rooms. During construction of the energy facility, when the work force would range from 40
41 to 385 employees, a large number of workers are expected to commute to the energy facility site
42 on a daily or weekly basis from other communities, including Rainier, St. Helens, Scappoose,
43 Longview/Kelso, and Portland. During the peak construction period, some temporary housing
44 shortages could occur if a large number of workers attempted to acquire residences within the
45 analysis area. Summit/Westward believes the likelihood of such shortages is remote, because

1 employment numbers fluctuate during construction and not all workers would be seeking
2 residences at the same time.

3
4 During operation of the energy facility, the work force is expected to consist of about 20
5 permanent employees. The demand for permanent housing in the analysis area would not
6 increase significantly during operation of the proposed energy facility.

7
8 **Traffic Safety.** Summit/Westward estimates that construction of the proposed energy facility
9 would take from 18 to 22 months. During the peak construction period, trip generation is
10 expected to be 555 daily trips (505 autos and 50 trucks) and 260 outbound trips during the
11 weekday PM peak hour¹ (255 autos and 5 trucks). When operation begins, the proposed energy
12 facility would generate 30 daily worker trips and 6 daily truck trips.

13
14 Summit/Westward hired Kittelson & Associates, Inc. (“Kittelson”) to assess the traffic impacts
15 of the proposed energy facility. Kittelson provided a Transportation Impact Analysis, included as
16 Appendix U-1 of the ASC. The Transportation Impact Analysis focused heavily on safety issues
17 arising from the condition of roads serving the Port Westward Industrial Area. It concluded with
18 recommendations with respect to roadway improvements and the allocation of costs for such
19 improvements, as discussed below. It also recommended the implementation of a Traffic Control
20 Plan (the “TCP”) during construction of the proposed energy facility. In addition to promoting
21 engineering improvements to the affected roads and enhanced enforcement measures, the TCP
22 would mitigate the short-term traffic impacts generated by construction of the energy facility,
23 particularly in the event of contemporaneous development of the other Port Westward Projects.
24 Elements of the TCP could include the promotion of ride-sharing among construction workers
25 and employees, shuttle bus service, or the implementation of staggered shifts.

26
27 The Transportation Impact Analysis also recommended that before beginning construction of the
28 facility Summit/Westward review all rail and bridge crossings to ensure that adequate clearance
29 is provided for the shipment of all modular equipment.

30
31 The Columbia County Board of Commissioners, in a letter to OOE dated April 14, 2001,
32 expressed concern over the County’s ability to provide these recommended improvements
33 without doing so at taxpayer expense. In response, Summit/Westward and PGE, prospective
34 developer of the PWGP, commissioned Kittelson to prepare a summary of transportation
35 improvements and cost estimates for transportation facilities in the Port Westward area, as well
36 as an assessment of the estimated proportionate impacts attributable to existing and future traffic
37 conditions attributable to contemporaneous development of the Summit Project, PWGP, and the
38 Cascade Grain Project (a separate industrial project not under EFSC jurisdiction).

39
40 After extensive consultation with Columbia County road department personnel, Kittelson
41 prepared a Transportation Improvements Analysis, dated January 22, 2002 and included as
42 Appendix U-4 of the ASC.

43

¹ The weekday PM peak hour is 5 to 6 p.m.

1 The Kittelson analysis includes a proportionate impact analysis to identify the percentage of total
 2 traffic volumes that the Summit Project would add to the surrounding road system during both
 3 construction and operation. The analysis looks at three scenarios:

- 4
- 5 • Scenario A includes only the Summit Project
- 6 • Scenario B includes the Summit Project and the PWGP
- 7 • Scenario C includes the Summit Project, the PWGP, and the Cascade Grain
- 8 Project
- 9

10 Kittelson based its conclusions largely on the assumption that prospective developers would
 11 minimize hauling of heavy equipment and materials by setting up a concrete batching plant and
 12 using barge or rail for gravel, heavy building materials, and all heavy components. The Council
 13 adopts this key assumption as a condition in the site certificate.

14
 15 Studies prepared for PGE and Summit/Westward by David Evans and Associates, Inc. (“DEA”)
 16 and Kittelson identified a series of transportation improvements necessary to correct roadway
 17 deficiencies and transportation impacts associated with the future development of the Summit
 18 Project and potential development of the PWGP, and the Cascade Grain Projects.

19
 20 Representatives of PGE and Summit/Westward have consulted regularly with Columbia County
 21 staff to identify transportation improvements and to develop equitable cost-sharing
 22 arrangements.

23
 24 **TABLE E.6-1**
 25 **PORT WESTWARD TRANSPORTATION IMPROVEMENTS**
 26

Roadway/Intersection	Description	Cost Estimate
Improvements Identified by PGE and Summit/Westward		
Kallunki Road	Place a leveling course on Kallunki Road to improve pavement condition during construction.	\$120,000
Kallunki Road	Rebuild Kallunki Road to include a new subbase, drainage, guardrail, and pavement.	\$885,000
Beaver Falls Road/Quincy-Mayger Road Intersection	Provide a pavement overlay and striping to channelize movements through the intersection. Add signing and a flashing yellow light.	\$110,000
Beaver Falls Road/Quincy-Mayger Road Intersection	Perform a detailed engineering study to develop a long-term solution for the intersection. The study should include a survey and would address realignment alternatives and associated right-of-way impacts.	\$40,000
Beaver Falls Road & Quincy-Mayger Road	Replace approximately 1,300 feet of existing guardrail.	\$45,000
Beaver Falls Road & Quincy-Mayger Road	Conduct an engineering study to determine locations for installing new guardrail, curve warning signs, and speed	\$20,000

	advisory signs.	
5 th Street Safety Improvements	Add pedestrian crossing signs and restripe crosswalks near playground. Remove island at Nehalem Street/5 th Street intersection and improve channelization. Consider implementing all-way stop control.	\$15,000
Beaver Falls Road & Quincy-Mayger Road	Construct two to three paved pullouts per direction for school buses.	\$35,000
Beaver Falls Road & Quincy-Mayger Road	Construct a pavement overlay following completion of Port Westward area construction per analyses and recommendations from Pavement Services, Inc.	\$720,000
Improvements Identified by Columbia County		
Beaver Falls Road & Quincy-Mayger Road	Additional Phase I improvements that include 15,000 feet of guardrail and a refuge lane at the railroad crossing. Includes a 40 percent contingency and incidentals.	\$483,000
5 th Street	Additional Phase I improvements that include overlay and pool/playground barrier. Includes a 40 percent contingency and incidentals.	\$164,400
Van Street	Phase I improvements that include widening roadway, paving, and drainage. Includes a 40 percent contingency and incidentals.	\$133,400
U.S. Highway 30	Phase I improvements that include a westbound deceleration lane on U.S. Highway 30. Includes a 40 percent contingency and incidentals.	\$169,900
Alston-Mayger Road	Phase I maintenance improvements. Includes a 40 percent contingency and incidentals.	\$210,000
Miscellaneous	Phase I miscellaneous construction. Includes a 40 percent contingency and incidentals.	\$803,300
TOTAL		\$3,954,000

1
2 Table E.6-1 includes a summary of transportation improvements proposed by Columbia County
3 and the developers in connection with development of the PWGP and Summit Project, together
4 with preliminary cost estimates. Columbia County would develop the schedule for completing
5 the transportation improvements following further discussion with Summit/Westward and the
6 prospective developers of the PWGP and Cascade Grain Project. The developers and Columbia
7 County staff would ensure that developers minimize the impacts to the road system and that
8 construction of the improvements would not significantly delay construction of the projects
9 proposed for development in the Port Westward Industrial Area.

10
11 Both Summit/Westward and PGE have entered into agreements with Columbia County whereby
12 the developers have agreed to contribute a proportionate share of the costs associated with the

1 transportation improvements identified in Table E.6-1. Pursuant to its Transportation
2 Improvement Contribution Agreement with Columbia County, executed June 12, 2002,
3 Summit/Westward must pay the county or its designee a Transportation Improvement
4 Contribution ("TIC") within 60 days after issuance of final building permits to construct the
5 facility. The amount payable is dependent upon the status of building permits for other projects
6 proposed for development in the Port Westward Industrial Area. If the facility is the only facility
7 permitted, Summit/Westward must pay Columbia County or its designee \$272,034. If building
8 permits have been issued for the PWGP, Summit/Westward must pay Columbia County or its
9 designee \$251,934. If building permits have been issued for the PWGP and the Cascade Grain
10 Project, Summit/Westward must pay Columbia County or its designee \$166,971. And, if
11 building permits have been issued for the Cascade Grain Project but not for the PWGP,
12 Summit/Westward must pay Columbia County or its designee \$184,434. Upon making this TIC,
13 Summit/Westward would be relieved of any further obligation to provide or pay for public
14 transportation system improvements in conjunction with construction or operation of the facility.
15 In addition, if one or more of the other projects proposed for development in the Port Westward
16 Industrial Area receive building permits after Summit/Westward has paid its TIC,
17 Summit/Westward would be eligible for reimbursement of some portion of its TIC.

18
19 In a May 23, 2002 letter from the Columbia County Board of Commissioners to Adam Bless, the
20 commissioners stated that the county has applied for and received grant money from the U.S.
21 Economic Development Administration and the Oregon Economic & Community Development
22 Department. The grants were awarded to fund engineering, design, and construction of necessary
23 road improvements generally associated with industrial development in the Port Westward
24 Industrial Area. Columbia County stated in its May 23 letter that it intends to perform the
25 improvements recommended in the Kittelson study on a schedule such that "adequate
26 transportation facilities and services will exist concurrent with the development of the Summit
27 Project."

28
29 The Council adopts the following conditions in the site certificate:

- 30
31 **(2) The certificate holder shall pay to Columbia County or its designee the**
32 **appropriate Transportation Improvement Contribution ("TIC") set forth in**
33 **the Agreement between Columbia County and Summit/Westward, dated**
34 **June 12, 2002 ("Agreement").**
35
36 **(3) The certificate holder shall not agree to amend the Agreement with**
37 **Columbia County to reduce, revoke or waive the requirement for payment of**
38 **the appropriate TIC without prior approval of the Council; however, such**
39 **approval by the Council shall not require an amendment to the site**
40 **certificate.**
41
42 **(4) Before beginning construction of the facility, the certificate holder shall**
43 **review all rail and bridge crossings to ensure that adequate clearance is**
44 **provided for the shipment of all modular equipment.**
45

- 1 (5) **If construction of the facility occurs concurrently with construction of other**
2 **projects in the Port Westward Industrial Area, the certificate holder shall**
3 **coordinate with other users of the Port Westward Industrial Area to provide**
4 **a carpooling program that identifies and/or creates park-and-ride locations**
5 **to facilitate carpooling.**
6
7 (6) **If construction of the facility occurs concurrently with construction of other**
8 **projects in the Port Westward Industrial Area, the certificate holder shall**
9 **coordinate with Columbia County and other users of the Port Westward**
10 **Industrial Area on the implementation of a staggered shift schedule if**
11 **Columbia County determines that traffic conditions warrant it.**
12
13 (7) **Before beginning construction of the energy facility, the certificate holder**
14 **shall coordinate with Columbia County the improvement and maintenance**
15 **of signage and striping at the mainline rail crossing on Kallunki Road,**
16 **including the installation of “DO NOT STOP ON TRACKS” signs.**
17
18 (8) **During construction of the facility, the certificate holder shall use barge and**
19 **railroad deliveries of bulk materials and heavy equipment, to the extent**
20 **practicable, to minimize the number of freight truck deliveries on local**
21 **roads.**
22

23 **Police and Fire Protection.** The Columbia County Sheriff’s Department provides law
24 enforcement service in the area of the proposed energy facility with a force of 17 deputies. The
25 application includes a letter from the Columbia County sheriff, stating that the sheriff’s
26 department would like to have additional personnel and resources but generally supporting the
27 Project. Because the influx of construction workers is temporary and the number of permanent
28 workers is relatively small, the Council does not adopt any additional conditions regarding police
29 protection.
30

31 The proposed energy facility site is located within the Clatskanie Rural Fire Protection District
32 (the “District”). Four fire stations operated by the District are located within the analysis area.
33 Only one of these stations, the Clatskanie Fire Station, is staffed with paid firefighters. Two fire
34 trucks are stationed at the Clatskanie Fire Station. Other stations located within the analysis area
35 are the Mayger, Delena, and Quincy stations. Each of these stations is equipped with a fire truck,
36 but the stations are staffed with volunteer firefighters who do not reside at the stations. In a letter
37 dated May 31, 2001, the District fire chief estimated the initial response time to the site at
38 between 15 and 20 minutes. The District fire chief did not indicate any concern regarding the
39 Project’s impact on the District’s ability to provide fire protection to the community.
40

41 The proposed energy facility would be equipped with fire protection systems, including
42 contained chemical storage areas, an emergency shutoff for the gas supply, and a water-based
43 hydrant and hose system surrounding the plant. The 600,000-gallon raw water storage tank
44 would contain 150,000 gallons of reserved fire suppression capacity. The tank would have a
45 standpipe on the normal water supply outlet line to prevent use of the dedicated fire protection

1 water for other purposes. The remaining raw water supply would serve as a backup source of fire
2 suppression water. The fire system would have electric pumps, backed up by a diesel-driven fire
3 pump in the event the electric power supply to the main fire pump fails. A fire pump controller
4 would be provided for the backup fire pump.

5
6 The fire protection system would be served by a dedicated fire loop piping system. The loop
7 would serve fire hydrants and fixed fire suppression systems. Fixed fire suppression systems
8 would be installed at fire-risk areas, such as the turbine lubrication oil equipment. Sprinkler
9 systems would also be installed in the control/administration, maintenance, and fire pump
10 buildings. The combustion turbine generator units would be protected by a deluge-type fire
11 protection system.

12
13 Handheld fire extinguishers and handcart extinguishers of the appropriate size and rating would
14 be located in accordance with National Fire Protection Association standards. Fire detection
15 devices, including smoke detectors, flame detectors, and temperature detectors, as appropriate,
16 would be installed at key points throughout the plant.

17
18 The Council adopts the following conditions in the site certificate:

19
20 **(9) During construction of the energy facility, the certificate holder shall**
21 **construct a fire protection system within the buildings and yard areas of the**
22 **energy facility site.**

23
24 **(a) The fire protection system shall be constructed in accordance with**
25 **National Fire Protection Association standards.**

26
27 **(b) The system shall include a dedicated fire loop piping system serving**
28 **fire hydrants and fixed fire suppression systems and shall also include**
29 **handheld fire extinguishers and handcart extinguishers of the**
30 **appropriate size and rating located in accordance with National Fire**
31 **Protection Association standards.**

32
33 **(c) A dedicated reserve capacity of 150,000 gallons in the raw water**
34 **storage tank shall serve as the fire suppression water source.**

35
36 **(d) Fire detection devices, including smoke detectors, flame detectors, and**
37 **temperature detectors, as appropriate, shall be installed at key points**
38 **throughout the energy facility.**

39
40 **Health Care.** The St. John Medical Center in Longview, Washington is the primary hospital in
41 the vicinity of the proposed energy facility. The hospital is a 193-bed acute care and level III
42 trauma center providing emergency and acute health care services. Staff and physicians are
43 trained to handle major trauma and are responsible for field personnel training programs,
44 coordination of emergency services, and community education programs. The Emergency
45 Department is staffed and equipped to handle all life-threatening emergencies. St. John Medical

1 Center has a helipad for rapid delivery and evacuation of trauma patients. The Minor Emergency
2 Area at St. John Medical Center is a special clinic designed specifically to meet medical care
3 needs that are urgent but not actually life-threatening. The Longview/Kelso area already has a
4 large number of industrial facilities, and the additional industrial work force associated with the
5 Summit Project is small compared with the existing industrial base. Therefore, the Council does
6 not adopt any additional site certificate conditions regarding health care.
7

8 **Schools.** The proposed energy facility would be located within the Clatskanie Columbia 6-J
9 School District that consists of one K-5 elementary school and one 6-12 middle/high school.
10 Current enrollment is significantly below capacity with a total of 930 students in both schools.
11 With the creation of an estimated 20 permanent jobs, the proposed energy facility could
12 potentially increase enrollment by about 5 to 10 students. Additional capacity is available at all
13 grade levels, and new demands on the area school system would not result in significant adverse
14 impacts. The application includes a letter from the Clatskanie Columbia 6-J School District,
15 supporting the Project and stating that the school district has the capacity to serve the students
16 expected as a result of the Project. The Council does not adopt any additional site certificate
17 conditions regarding schools.
18

19 **Conclusion**

20 The Council adopts the foregoing conditions with respect to public services, OAR 345-022-0110.
21

22 **E.7. WASTE MINIMIZATION, OAR 345-022-0120**

23 The standard requires that to issue a site certificate, the Council must find that, to
24 the extent reasonably practicable:

- 25 “(1) The applicant’s solid waste and wastewater plans are likely to minimize
26 generation of solid waste and wastewater in the construction, operation,
27 and retirement of the facility, and when solid waste or wastewater is
28 generated, to result in recycling and reuse of such wastes;
29 “(2) The applicant’s plans to manage the accumulation, storage, disposal and
30 transportation of waste generated by the construction and operation of the
31 facility are likely to result in minimal adverse impact on surrounding and
32 adjacent areas.”
33

34 For a facility that qualifies for expedited review under ORS 469.373, the Council
35 may not require compliance with this standard, but it can impose conditions based
36 on the standard.
37

38 **Discussion**

39 **Solid Waste**

40 Summit/Westward would use the Oregon Commercial Waste Reduction Clearinghouse to
41 promote recycling and minimize waste. Hudson Garbage, a provider of once-a-week recycling
42 services for businesses in the Clatskanie area, would recycle paper, cardboard, aluminum cans,
43 and glass bottles generated by the proposed energy facility. It would also accept scrap metal at its
44 facility in St. Helens, Oregon and work with Summit/Westward to find recycling options for
45 concrete.

1
2 Summit/Westward proposes to implement a variety of waste management methods to reduce and
3 control the generation of nonhazardous waste. These management methods would include source
4 reduction, recycling, treatment, selection of less-toxic materials, and disposal.
5

6 Construction. Summit/Westward estimates it would produce about 310 tons of solid waste during
7 construction of the energy facility. Construction wastes would consist of nonhazardous
8 construction materials, including scrap steel and other metals, welding rod, wood, packing
9 materials, plastics, insulation materials, cardboard, empty nonhazardous containers, and erosion
10 control materials, including straw bales, silt fencing, and bio-bags. Summit/Westward would
11 collect these solid wastes in a series of on-site metal dumpsters that would be strategically
12 situated to promote their use by subcontractors and clearly labeled for cardboard, paper, wood,
13 glass, plastics, concrete, and metal. Designated recyclers would pick up the contents of these
14 dumpsters periodically. Wastes that were not recycled would be disposed of at the local
15 permitted landfill.
16

17 Operation. Summit/Westward estimates that operation of the proposed energy facility would
18 produce about 20 to 30 tons per year of solid waste. In addition to cardboard, paper, wood, glass,
19 and plastics, these wastes could include oily rags, turbine air filters, broken and rusted metal and
20 machine parts, defective or broken electrical materials, and empty storage and shipping
21 containers that contained nonhazardous materials. Summit/Westward would collect solid wastes
22 generated during operation and maintenance of the proposed energy facility in a series of on-site
23 metal dumpsters designated for cardboard, paper, wood, glass, plastics, concrete, and metal.
24 Designated recyclers would pick up the contents of these dumpsters periodically. Wastes that
25 were not recycled would be disposed of at the local permitted landfill.
26

27 Retirement. In addition to cardboard, paper, wood, glass, and plastics, wastes generated during
28 retirement of the proposed energy facility could include concrete, asphalt, steel, insulation
29 materials, roofing materials, turbine air filters, machine parts, and electrical materials.
30 Summit/Westward would collect solid wastes generated during retirement of the energy facility
31 in a series of on-site metal dumpsters designated for cardboard, paper, wood, glass, plastics,
32 concrete, and metal. Designated recyclers would pick up the contents of these dumpsters
33 periodically. Wastes that were not recycled would be disposed of at the local permitted landfill.
34

35 The Council adopts the following conditions in the site certificate:
36

- 37 (1) **Upon completion of construction of the facility, the certificate holder shall**
38 **dispose of all temporary structures not required for facility operation and all**
39 **timber, brush, refuse, and flammable or combustible material resulting from**
40 **clearing of land and construction of the facility.**
41
42 (2) **During construction, operation, and retirement of the facility, the certificate**
43 **holder shall separate recyclable materials from the domestic solid waste,**
44 **store them, and arrange for their periodic pickup by qualified recyclers.**
45

1 **Wastewater**

2 Construction. Nonhazardous wastewater would be generated during construction of the proposed
3 energy facility, including sanitary waste, equipment wash water, hydrostatic test wastewater, and
4 storm water.

5
6 Summit/Westward would collect construction equipment wash water at designated equipment
7 wash-down areas. This wash water would be reused, discharged to an on-site oil/water separator,
8 or shipped off-site for disposal or treatment.

9
10 Wastewater may be generated during hydrostatic testing of the natural gas pipeline. This
11 hydrostatic test water would be filtered to remove dirt, sediments, welding fragments, and other
12 suspended particulates. The water would then be analyzed and, based on the analytical results,
13 used for dust suppression, further hydrostatic testing, or equipment wash water or discharged at
14 the nearest permitted waste disposal facility.

15
16 Other wastewater generated during construction of the proposed energy facility would be
17 analyzed and, based on the analytical results, used on-site or discharged to the nearest permitted
18 waste disposal facility.

19
20 Operation. Operation of the energy facility would produce sanitary sewage and the potential for
21 the discharge of process wastewater into backup holding ponds in the event the brine crystallizer
22 is off-line.

23
24 Any water discharged to the temporary wastewater storage ponds during a period when the brine
25 crystallizer is not operational would be pumped back through the system when it again became
26 operational.

27
28 The Council adopts the following conditions in the site certificate:

- 29
30 **(3) During operation of the energy facility, the certificate holder shall collect in**
31 **temporary wastewater storage ponds any water discharged from the energy**
32 **facility during periods when the brine crystallizer is not operational. When**
33 **the brine crystallizer again becomes operational, all such wastewater shall be**
34 **pumped back through the energy facility cooling system. In the event the**
35 **temporary wastewater storage ponds become full and the brine crystallizer**
36 **remains inoperable, the energy facility shall be shut down to prevent any**
37 **overflow of the ponds.**

38
39 Retirement. Wastewater generated during retirement of the facility could include process
40 wastewaters, equipment washdown water, and sanitary sewage. Summit/Westward would
41 transfer process and equipment washdown wastewater to the Port for treatment and disposal. The
42 septic tank would be pumped and its contents disposed of by a contractor. The Council does not
43 adopt any additional site certificate conditions regarding wastewater generated during retirement
44 of the facility.

1 **Impact on Surrounding and Adjacent Areas**

2 Construction. During construction, Summit/Westward has stated that it will implement a
3 Construction Waste Management Plan, which would identify recycling contractors and the
4 mechanism for collection and transportation of recyclable waste. Wastewater generated during
5 equipment washing and hydrostatic testing would be minimized or reused. Solid waste that
6 cannot be recycled would be trucked to a suitable landfill.

7
8 Operation. During operations, Summit/Westward would route sanitary sewage to an on-site
9 system under a WPCF permit. Condition (3) proposed above will ensure that the proposed
10 system for handling process wastewater would not adversely affect surrounding or adjacent
11 areas. Solid waste that cannot be recycled would be trucked to a suitable landfill. DEQ
12 permitting requirements for the sanitary sewage and temporary holding ponds are discussed at
13 Sections F.1.d and F.1.e of this Order. Recycling of solid waste is discussed above. The Council
14 does not adopt any additional site certificate conditions regarding the impact on surrounding and
15 adjacent areas of waste minimization during operation of the facility.

16
17 Retirement. During retirement of the facility, Summit/Westward would provide that the septic
18 tank would be pumped and its contents disposed of by a contractor. Solid waste that cannot be
19 recycled would be trucked to a suitable landfill. The Council does not adopt any additional site
20 certificate conditions regarding the impact on surrounding and adjacent areas of waste
21 minimization during retirement of the facility.

22
23 **Conclusion**

24 The Council adopts the foregoing conditions with respect to waste minimization, OAR 345-022-
25 0120.

26
27 **F. OTHER APPLICABLE REGULATORY REQUIREMENTS: FINDINGS AND CONCLUSIONS**

28
29 **F.1. REQUIREMENTS UNDER COUNCIL JURISDICTION**

30 Pursuant to ORS 469.503(1)(b), the Council must determine that the proposed facility complies
31 with all other Oregon statutes and administrative rules identified in the Project Order, as
32 amended, as applicable to the issuance of a site certificate.

33
34 Applicable Oregon statutes and administrative rules identified in the Project Order that are not
35 addressed in any of the Council's standards are discussed in Section F.1 of this Order. These
36 include the DEQ's noise control regulations, DSL's regulations for disturbance to wetlands, and
37 the Council's statutory authority to consider protection of the public health and safety.

38
39 **F.1.a. Noise**

40
41 **The Requirement.** Regulations adopted by DEQ on noise from new industrial and commercial
42 sources apply to the proposed facility. The applicable regulation requires that:

43
44 "No person owning or controlling a new industrial or commercial noise source
45 located on a previously unused industrial or commercial site shall cause or permit

1 the operation of that noise source if the noise levels generated or indirectly caused
2 by that noise source increase the ambient statistical noise levels, L_{10} or L_{50} , by
3 more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as
4 measured at an appropriate measurement point* * *.”
5 OAR 340-035-0035(1)(b)(B)(i).
6

7 **Discussion**

8 Because of the highly technical nature of the noise issues affecting typical electric generating
9 facilities, the Office retained the services of Mr. Kerrie G. Standlee, P.E. of Daly-Standlee &
10 Associates, Inc. to review the noise section of the application for site certificate. Mr. Standlee is
11 a registered acoustical engineer in the state of Oregon, and he has been working in the state for
12 approximately 25 years. Mr. Standlee has provided acoustical engineering design services on
13 several power plant projects in the Northwest, and, for well over 12 years, he has provided
14 acoustical engineering services on projects employing gas turbines for clients such as PG&E Gas
15 Transmission Northwest. Mr. Standlee has been involved in the review and assessment of
16 environmental noise for both the private and public sector throughout his career. For example,
17 Mr. Standlee was retained by Washington County to help assess and solve the noise impacts
18 associated with the 24-hour blasting that occurred during the construction of Tri-Met’s Westside
19 Light Rail tunnel in the Portland area. In addition, Mr. Standlee was retained by the city of
20 Portland to act as a hearings officer during the Westside Light Rail tunnel construction project to
21 ensure that citizens’ noise complaints were adequately addressed when the construction activities
22 moved into the city of Portland. Mr. Standlee is a member of the Acoustical Society of America,
23 the Institute of Noise Control Engineering, and the City of Portland Noise Review Board.
24

25 The proposed energy facility would be located in Clatskanie, Oregon, near the Columbia River.
26 Noise would radiate from the facility to residences located in Oregon and to residences located
27 across the river in Washington. The Council uses the DEQ noise regulation to evaluate the noise
28 radiating from the energy facility because the facility would be located in Oregon. However,
29 because the energy facility would also radiate noise to residences located in Washington,
30 Summit/Westward estimated noise impacts at residences located in Washington as well as in
31 Oregon. In Oregon, Summit compared the noise radiating from the energy facility with the limits
32 specified in the DEQ noise regulation (OAR 340-035-0035). In Washington, Summit/Westward
33 compared the noise radiating from the energy facility with the limits specified in the DEQ noise
34 regulation and, although the Washington limits are not legally binding, the limits specified in the
35 Washington Department of Ecology (“DOE”) noise regulation (WAC 173-60-040).
36

37 The DEQ noise regulation has two criteria that apply to a new noise source located on a
38 “previously unused industrial site.” The first criterion, presented in Table 8 of the DEQ noise
39 regulation, establishes the maximum hourly statistical noise levels that may radiate from a new
40 noise source to a “noise sensitive receiver” such as a residence, church, school, or hospital. This
41 criterion limits the maximum hourly L_{50} , L_{10} , and L_{01} noise radiating from a commercial or
42 industrial noise source to 55, 60, and 75 dBA, respectively, between 7 a.m. and 10 p.m. and 50,
43 55, and 60 dBA, respectively, between 10 p.m. and 7 a.m. The hourly L_{50} , L_{10} and L_{01} noise
44 levels are defined as the noise level equaled or exceeded 50 percent, 10 percent, and 1 percent of

1 the hour, respectively. This criterion is often referred to as the “maximum allowable noise level
2 criterion.”

3
4 The second criterion requires that the new noise source not increase the ambient hourly statistical
5 noise levels at a noise sensitive receiver by more than 10 dBA. This criterion is intended to
6 prevent large increases in noise levels at a receiver, and it is often referred to as the “ambient
7 noise degradation rule.”

8
9 The Washington DOE noise regulation, like the Oregon regulation, has a maximum allowable
10 rule that specifies the maximum noise level allowed in any hour. However, unlike the Oregon
11 regulation, the Washington regulation does not distinguish between a source located on a
12 previously used site and a source located on a previously unused site. In other words, the
13 Washington noise regulation does not include an ambient degradation rule. Thus, for a source
14 located on a previously unused site, the Washington DOE noise regulation is often less stringent
15 than the Oregon DEQ noise regulation.

16
17 To quantify existing ambient noise levels, the applicant utilized noise level data collected by
18 Mr. Albert Duble, P.E. during the course of a noise study conducted for PGE’s proposed PWGP.
19 Summit/Westward supplemented the PGE ambient noise data with data measured during a
20 continuous 24-hour period at three residential structures - one in Oregon and two in Washington.
21 The measurement in Oregon was made at the nearest noise sensitive receiver in the vicinity of
22 the proposed energy facility site. The measurements in Washington were made at two of the
23 residences with an unimpeded view of the proposed energy facility site. The residence nearest
24 the proposed energy facility site on the Oregon side of the Columbia River was located about
25 1,800 feet from the proposed energy facility site. On the Washington side of the Columbia River,
26 the Summit/Westward monitoring site nearest the proposed energy facility was located about
27 10,800 feet from the site. The other monitoring site was located approximately 12,000 feet from
28 the proposed energy facility site.

29
30 Existing noise at residences in Oregon nearest the proposed energy facility is mainly a result of
31 the noise radiating from PGE’s Beaver Power Plant during daytime and nighttime hours. At
32 times during the day, the noise at the residences is influenced by intermittent traffic on local
33 roads. At night, natural noise sources such as wind blowing through the trees and chirping
34 crickets in the grass also contribute to the ambient noise.

35
36 Existing noise at residences in Washington nearest the proposed energy facility is mainly a result
37 of a combination of traffic on state highway SR 4 and PGE’s Beaver Power Plant during the
38 daytime hours. At night, the noise at those receivers is mainly a result of PGE’s Beaver Power
39 Plant, wind blowing through the trees, and crickets.

40
41 The results of the long-term sound measurements made by Summit/Westward were comparable
42 to those found by PGE so, in lieu of conducting additional measurements at other locations,
43 Summit/Westward elected to utilize the ambient noise level data submitted in the PWGP
44 application for site certificate. Summit/Westward indicated that daytime hourly L₅₀ noise levels
45 at the nearest residence on the Oregon side of the Columbia River ranged between 33 and 43

1 dBA. Daytime hourly L₅₀ noise levels at the nearest residence on the Washington side of the
2 river ranged between 41 and 47 dBA. Nighttime hourly L₅₀ noise levels at the nearest residence
3 on the Oregon side of the Columbia River ranged between 34 and 42 dBA, while nighttime
4 hourly L₅₀ noise levels at the nearest residence on the Washington side of the river ranged
5 between 35 and 42 dBA.

6
7 Because the Summit Project would operate on a 24-hour basis, the noise radiating from the
8 proposed energy facility must comply with nighttime and daytime noise limits. The noise
9 radiating from the proposed energy facility would, generally speaking, be relatively constant
10 during an hour. As a result, the hourly L₀₁, the hourly L₁₀, and the hourly L₅₀ noise level
11 radiating from the energy facility would be about the same. Because the hourly L₅₀ noise level
12 criterion is the lowest criterion of the three hourly statistical level criteria, the hourly L₅₀ criterion
13 would be the most limiting criterion of the three in this case.

14
15 With the consideration of the ambient noise degradation rule limit and the nighttime maximum
16 hourly noise limits, the noise from the proposed energy facility would be limited to an hourly L₅₀
17 level of:

18

Site	DEQ Hourly L ₅₀ Criteria
1	43
2	43
3	43
4	43
5	43
6	43
7	43
8	50
9	50
10	50
11	50

19
20
21 Noise sources at the proposed energy facility would include the combustion turbines, the
22 generators, the heat recovery steam generator, the steam turbine, the transformers, and the
23 cooling towers. The power generating equipment proposed at the Summit/Westward energy
24 facility would be supplied by Siemens Westinghouse, and, according to Siemens Westinghouse,
25 the sound level would be no higher than 66 dBA at a distance of 400 feet from the “noise
26 envelope” of the equipment. To provide additional information about equipment sound levels,
27 Summit/Westward measured the noise radiating from a Siemens Westinghouse power plant in
28 Chouteau, Oklahoma, where the equipment was similar to that proposed for the Summit Project.
29 One-third octave band sound pressure level data was measured at various points around the
30 Oklahoma facility, and the results were used as reference data for the Summit Project.

1 The measured reference sound data were included in a three-dimensional noise propagation
2 program to predict the total noise level that would radiate from the proposed energy facility to
3 residences in Oregon and Washington. The influence of equipment directivity (such as exhaust
4 stack directivity), atmospheric conditions, and distance were included in the calculations. Based
5 on the prediction results, the future hourly L_{50} noise level at prediction Sites 1, 2, 3, and 4 (the
6 four nearest residences in Oregon) would be above that allowed by the DEQ ambient noise
7 degradation rule if Summit/Westward were not to implement noise mitigation measures. The
8 future hourly L_{50} noise level at all other residences in Oregon (prediction Sites 5, 6, and 7 in the
9 noise study report) would be less than that allowed without the use of any additional noise
10 mitigation measures.

11
12 In Washington, the noise radiating from the proposed energy facility would have no influence on
13 the ambient noise found at prediction Sites 9, 10 and 11 (the residences located 9,000, 10,500,
14 and 10,350 feet from the plant, respectively).

15
16 Because the initial prediction results showed the noise radiating from the proposed energy
17 facility would exceed the DEQ ambient noise degradation rule at four residences in Oregon,
18 Summit/Westward altered the facility layout, moved the cooling towers west of the original
19 proposed location, and incorporated plant design features intended to achieve permissible noise
20 levels. With the design changes, Summit/Westward found that the noise radiating from the
21 proposed energy facility would be in compliance with both the Oregon DEQ noise regulation and
22 the Washington Administrative Code noise regulation.

23
24 Summit/Westward predicts the hourly L_{50} noise level radiating from the energy facility would be
25 less than that allowed by the DEQ regulation at all receivers. Since the noise radiating from the
26 energy facility is relatively constant in noise level, the hourly L_{10} and L_{01} noise levels radiating
27 from the energy facility would also likely be less than that allowed by the DEQ and Washington
28 Administrative Code noise regulations.

29
30 Summit/Westward predicts there will be no net increase in the noise level at the nearest noise-
31 sensitive residence in Oregon when the noise radiating from the new PWGP facility is added to
32 that predicted to radiate from the proposed facility. On the Washington side of the Columbia
33 River, Summit/Westward predicts the cumulative effect of the two energy facilities will be to
34 raise the ambient noise level slightly to 30 dBA, well within the Washington Administrative
35 Code noise limits and well below that allowed by the Oregon DEQ limits.

36
37 Based on the analysis approach and results, Summit/Westward has reasonably assessed the noise
38 impacts associated with the proposed energy facility. Therefore, the Council finds that
39 Summit/Westward would comply with the hourly L_{50} , L_{10} , and L_{01} noise limits at all residences
40 in Oregon and Washington.

41
42 Construction of the energy facility should produce noise levels similar to those from any large
43 construction project. Construction of the energy facility would involve the operation of
44 construction equipment, including light and heavy trucks, backhoes, bulldozers, graders, cranes,
45 air compressors, welding machines, and power hand tools. The DEQ noise standard exempts

1 noise that originates from construction activities. However, to reduce noise impacts on nearby
2 residences during construction of the energy facility, Summit/Westward would schedule most
3 construction work for daylight hours when people are generally less sensitive to noise.

4
5 Issues Raised in Public Comment

6 On May 17, 2002, a group of residents living in Washington State, directly across the Columbia
7 River from the Port Westward Industrial Area, requested in writing that the Council impose
8 certain conditions on the site certificate. Because PGE's proposed PWGP is located much closer
9 to these residents than the Summit Project site, and because PGE also operates the existing
10 Beaver Power Plant, the letter to the Council was directed primarily at PGE facilities. However,
11 the petitioners mentioned the Summit Project as well. Also on May 17, 2002, the Office received
12 a letter from Black Helterline, the law firm representing the Washington residents. This letter
13 was also primarily directed at the PWGP but mentioned the Summit Project as well.

14
15 The conditions requested would require continuous noise monitoring on the Washington side of
16 the river for a year. The letter also requested provisions to upgrade facilities if the continuous
17 monitoring did not demonstrate continuous compliance.

18
19 The Office requested advice from its noise consultant, Mr. Kerrie Standlee. Because the
20 comment was primarily directed at the PWGP, Mr. Standlee's advice was addressed in a June 13,
21 2002 letter to Sam Sadler, the OOE project officer for the PWGP. Mr. Standlee provided a
22 lengthy analysis. Regarding the request for continuous monitoring, Mr. Standlee advised that

23
24 "that degree of monitoring is neither practical nor necessary. When continuous
25 noise measurements are made over a long period such as that proposed by the
26 Washington residents, the measurements are usually made without the presence of
27 an observer. Noise data without the corroboration of the source of the sound is
28 insufficient to determine if a source in question is in or out of compliance with a
29 criterion."

30
31 Mr. Standlee, in the same letter, also noted that the noise contribution from the Summit Project is
32 expected to be on the order of 0 to 3 dB, but most typically 1 or 2 dB, on the Washington side of
33 the Columbia River, meeting even the strictest standard with more than ample margin. For this
34 reason, the Office does not recommend the continuous monitoring requirement in Washington.

35
36 The Council adopts the following conditions in the site certificate:

- 37
38 (1) **During construction of the energy facility, the Summit/Westward on-site**
39 **electrical transmission line, or other related or supporting facilities, the**
40 **certificate holder shall schedule most heavy construction to occur during**
41 **daylight hours. Construction work at night shall be limited to work inside**
42 **buildings and other structures when possible.**
43
44 (2) **During construction of the energy facility, the Summit/Westward on-site**
45 **electrical transmission line, or other related or supporting facilities, the**

1 certificate holder shall require contractors to equip all combustion engine-
2 powered equipment with exhaust mufflers.

- 3
- 4 (3) During construction of the energy facility, the Summit/Westward on-site
5 electrical transmission line, or other related or supporting facilities, the
6 certificate holder shall establish a complaint response system at the
7 construction manager's office to address noise complaints. The certificate
8 holder shall also maintain a complaint response system to address noise
9 complaints during plant operations.
- 10
- 11 (4) Within six months after the start of commercial operation of the energy
12 facility, the certificate holder shall retain a qualified noise specialist to
13 measure noise levels associated with the energy facility operation when the
14 facility is operating in a maximum noise mode.
- 15
- 16 (a) The specialist shall measure noise levels in Oregon at the nearest
17 residence east of the facility and the nearest residence south of the
18 facility to determine if actual noise levels are within the levels
19 specified in the applicable noise regulations in OAR
20 345-035-0035(1)(b)(B)(i). Measurements shall be made in accordance
21 with the procedures specified in ANSI S12.9-1993/Part 3, "Quantities
22 and Procedures for Description and Measurement of Environmental
23 Sound. Part 3: Short-Term Measurements with an Observer
24 Present." The measurements shall be made during late-night hours
25 when the ambient noise levels are lowest and weather conditions are
26 generally best for sound propagation in the environment.
27 Measurements shall be made only when the wind is either calm or
28 when the wind is less than five miles per hour from the north or west.
- 29
- 30 (b) If the equipment operating conditions or the atmospheric conditions
31 required for measurements in (a) do not exist within the first six
32 month of operation, an extension of time for the compliance
33 measurements may, upon request, be granted by the Office.
- 34
- 35 (c) The certificate holder shall report the results of the noise evaluation to
36 the Office.
- 37
- 38 (d) If actual noise levels do not comply with applicable DEQ regulations,
39 the certificate holder shall take those actions necessary to comply with
40 the regulations as soon as practicable. Additional mitigation measures
41 required to gain compliance may include additional silencing of
42 exhaust stacks and inlet air ducts, installation of barriers or
43 enclosures around certain pieces of equipment, additional lagging of
44 radiating surfaces and the use of additional seals at penetration points
45 in the turbine building.

- 1
- 2 (5) **The certificate holder shall install on short duration noise sources, *e.g.*, steam**
3 **and air vents, silencers that have a sufficient amount of insertion loss to**
4 **ensure that noise created when those sources are operated during controlled**
5 **conditions meets the applicable DEQ noise standards at OAR chapter 340,**
6 **division 35**
- 7
- 8 (6) **During construction and operation of the energy facility, the certificate**
9 **holder shall enclose the natural gas and steam turbines within a metal**
10 **building, enclose the main pump area and gas valve area, and make use of**
11 **air inlet and exhaust silencers at critical locations.**

12

13 **Conclusion**

14 The Council finds that Summit/Westward meets the DEQ noise standard, OAR
15 340-035-0035(1)(b)(B)(i), subject to the conditions in this Order.

16

17 **F.1.b. Wetlands**

18

19 **The Requirement.** The Council does not have a specific standard for wetlands. However,
20 pursuant to OAR 345-022-0000, Summit/Westward must comply with applicable regulations
21 regarding wetlands within state jurisdiction under ORS chapter 196. The Oregon Removal-Fill
22 Law (ORS 196.800 through .990) and regulations adopted by DSL (OAR 141-085-0005 through
23 0090) apply to the proposed facility. A removal-fill permit is required if 50 cubic yards or more
24 of material is removed, filled, or altered within any “waters of the state” at the proposed site.
25 Under the removal-fill law, “waters of the state” includes wetlands. Pursuant to OAR 345-022-
26 0000, the Council must determine that all required fill and removal permits of DSL can be issued
27 to the proposed facility in compliance with ORS 196.800, *et seq.*

28

29 The proposed energy facility would affect regulated waters and would require a removal-fill
30 permit in accordance with DSL regulations.

31

32 **Discussion**

33 The analysis area for wetlands includes the energy facility site and all related or supporting
34 facility sites, including construction laydown areas.

35

36 DEA prepared the wetland delineation for the proposed facility, with the assistance of Greystone,
37 Foothill Associates Environmental Consultants, and Terry Cook, soil consultant. DEA conducted
38 delineation field studies over a 10-month period between April 2001 and February 2002. After
39 repeated reviews of the delineation and two site visits to review site conditions, DSL concurred
40 with the final delineation on March 18, 2002 (DSL Determination #01-0566).

41

42 Within the analysis area, DEA identified 12 wetlands covering an area of 17.25 acres, as shown
43 in Attachment 1c, Table 1, of Summit/Westward’s Removal-Fill Permit Application, dated
44 March 8, 2002. In addition, the site contains several drainage and irrigation ditches.
45 Summit/Westward described each wetland and the drainage and irrigation ditches in the ASC

1 (Exhibit P) and in Attachment 1 of the Removal-Fill Permit Application.
2

3 All of the wetlands within the analysis area are palustrine emergent wetlands that have been
4 disturbed by grazing and/or haying. One palustrine scrub-shrub wetland is located in the vicinity
5 of the pipeline route.
6

7 **Wetland Impacts.** Based on the delineation, the facility would have an impact on 0.35 acre of
8 palustrine emergent wetlands and 0.13 acre of drainage ditches (ASC, Exhibit J, Table J-1). The
9 impacts would be permanent and would be associated with the construction of the energy
10 facility. In its Removal-Fill Permit Application, Summit/Westward estimates that a total of about
11 5,000 cubic yards of material would be placed within a wetland. The wetland that would be
12 affected is Wetland No. 11, a grazed depression, and a portion of an excavated drainage ditch
13 located in the southwest corner of the property (Removal-Fill Permit Application, Figure 3.1-1).
14

15 Recommended mitigation measures to avoid, minimize, and compensate for impacts are
16 described below and listed in the Draft Removal-Fill Permit (Attachment D to this Order).
17

18 **Proposed Mitigation.** Summit/Westward proposes to implement the following mitigation
19 measures:
20

21 Avoidance and Minimization

22 Summit/Westward has undertaken site redesign to avoid and minimize potential impacts to
23 regulated “waters of the state.” Redesigned elements include (1) shifting the final site layout of
24 the power island, (2) moving and reorienting the cooling towers, (3) redesigning and shifting the
25 wastewater retention ponds, (4) moving appurtenant components of the power island, and
26 (5) laying out the final design of all related or supporting linear facilities, including the natural
27 gas pipeline, transmission line, and water supply pipeline, within existing roads or upland areas.
28

29 Mitigation Plan

30 A Draft Wetland Mitigation Plan included in the Removal-Fill Permit Application describes the
31 proposed mitigation, mitigation goals, design implementation, proposed grading and seeding
32 plans, and monitoring.
33

34 Summit/Westward proposes to compensate for 0.48 acre of unavoidable impacts to Wetland No.
35 11 (0.35 acre) and a ditch (0.13 acre) by creating 0.75 acre of palustrine emergent-depressional
36 wetlands on the site. The mitigation area would be created in the southeast corner of the 53-acre
37 parcel controlled by Summit/Westward, between wetland No. 1 and Wetland No. 12 (Removal-
38 Fill Permit Application, Figure 1.2-2). An isolated depressional wetland would be created
39 through shallow excavation. Hydrology to the created wetland would be primarily from direct
40 precipitation and groundwater. The mitigation area would be graded to blend into the
41 surrounding land and have side slopes of 20:1 to 5:1. Summit/Westward proposes to revegetate
42 the mitigation area using salvaged topsoil from upland and wetland areas and broadcasting seed
43 of grasses and forb species listed in Table 4.3-1 of the Removal-Fill Permit Application. If seeds
44 are not available at the time of planting, plugs or container plants may be used.
45

1 Summit/Westward would monitor the mitigation site for three years and would provide an
2 annual report documenting wetland conditions and plant coverage to DSL. The monitoring report
3 would include field data, photographs from established points, data analysis and
4 recommendations for maintenance.

5
6 Contingency Plan

7 Summit/Westward proposes to monitor hydrology visually during the first year following
8 construction. The vegetative cover within the mitigation area would comprise at least 80 percent
9 native wetland plants. Should reed canary grass exceed 20 percent coverage, Summit/Westward
10 would implement additional remedial actions in consultation with DSL (Removal-Fill Permit
11 Application, at 13-14). Such additional remedial actions may include (1) additional mowing
12 intervals, (2) controlled burns, or (3) over-seeding with native plant seeds or plugs. Control
13 measures would not include herbicide applications, mechanical removal of plants, disking or
14 other soil-disturbing methods (Removal-Fill Permit Application, at 13-14). Summit/Westward
15 would provide detailed wetland construction plans to DSL for its review before site grading.

16
17 In consultation with DSL, the Office has analyzed the proposed fill against the legal standards
18 imposed by the removal-fill law and applicable administrative rules. The Council finds that DSL
19 may issue a permit that would authorize the fill of up to 5,000 cubic yards of material within
20 wetland No. 11 and a drainage ditch, provided that all unavoidable wetland impacts are fully
21 mitigated in compliance with approved mitigation plans pursuant to the conditions in Attachment
22 D to this Order.

23
24 Statutory Standards from ORS 196.825

25 ORS 196.825(2) provides the overall decision standard for permitting wetland fills. It provides
26 that a permit shall be issued for filling waters of this state only after a determination that “the
27 proposed fill would not unreasonably interfere with the paramount policy of this state to preserve
28 the use of its waters for navigation, fishing and public recreation.” *Id.*

29
30 The Council finds that the proposed wetland removals and fills meet this standard because:

- 31
- 32 1. The impacted wetlands do not now offer significant values related to public
33 navigation, fishing, and recreation;
 - 34 2. The proposed energy facility was significantly redesigned to avoid or minimize
35 wetland impacts; and
 - 36 3. Summit/Westward proposes to compensate for 0.48 acre of unavoidable impacts
37 to wetlands by creating 0.75 acre of palustrine emergent-depressional wetlands on
38 the site.
- 39
40
41

42 ORS 196.825(3) requires consideration of certain factors in determining whether to grant a
43 removal-fill permit:

1 “(a) *The public need for the proposed fill and the social, economic or other*
2 *public benefits likely to result from the proposed fill.*”
3

4 This factor addresses the public need for the proposed “fill” and not the need for the proposed
5 “project.” This consideration takes the proposed project as a given. The public need for the
6 proposed fill is demonstrated because it is likely that some fill activity would be necessary to
7 allow any industrial development at the proposed site. Columbia County’s acknowledged
8 comprehensive land use plan contains a section called the Port Westward Exception Statement.
9 Columbia County found in this statement that there is a public need for land zoned RIPD, and
10 that the nearly 900-acre tract known as the Port Westward Industrial Area contained certain
11 features making it uniquely appropriate for the RIPD zone. The social, economic, and other
12 public benefits from this zoning are described in detail in the county comprehensive plan at page
13 147. Those findings have been acknowledged by LCDC and need not be reproduced here. After
14 site inspections by OOE and DSL, we note that any industrial development that completely
15 avoids wetlands would be unlikely within the Port Westward Industrial Area because of the high
16 incidence of wetlands in the area. The applicant has made every effort to configure the energy
17 facility to avoid wetlands at the site, but could not do so entirely. Therefore, the Council finds
18 that the proposed fill is needed for the energy facility to go forward and that in fact some
19 removal-fill activity would be needed for any use of this land in the manner for which is it zoned.
20

21 “(b) *The economic cost to the public if the proposed fill is not accomplished.*”
22

23 Summit/Westward has redesigned and reconfigured the proposed facility to avoid and minimize
24 impacts to waters of the state. Additional redesign efforts are unlikely to completely eliminate
25 the need for the proposed fill. The economic cost to the public if the proposed fill is not
26 accomplished is that land that Columbia County has designated RIPD could not be fully
27 developed. The county, in the Port Westward Exception Statement, noted that Columbia County
28 has a shortage of industrial land and that the Port Westward Industrial Area has features that
29 make it uniquely suitable for that use.
30

31 “(c) *The availability of alternatives to the project for which the fill is*
32 *proposed.*”
33

34 The fill is proposed in conjunction with construction and operation of the Summit Project.
35 “Project” means “any removal and/or fill activity or both in waters of the state.” OAR 141-085-
36 0010(31). Because of the relative looseness and soft nature of the shallow subsurface materials
37 and the high groundwater levels at the facility site, construction of the generating facility will
38 require working pads or mats. These components will require a site fill thickness of three feet.
39 There are no alternatives to the installation of working pads or mats and, therefore, no
40 alternatives to the Project for which the fill is proposed.
41

42 “(d) *The availability of alternative sites for the proposed fill.*”
43

44 Summit/Westward has undertaken extensive alternative site design and engineering
45 modifications to avoid and minimize potential impacts to waters of the state to the maximum

1 extent practicable. Redesigned elements include (1) shifting the final site layout of the power
2 island, (2) moving and reorienting the cooling towers, and (3) redesigning and shifting the
3 wastewater retention ponds. Therefore, alternative sites are unlikely to result in reduced wetland
4 impact.

5
6 *“(e) Whether the proposed fill conforms to sound policies of conservation and
7 would not interfere with public health and safety.”*

8
9 Sound conservation policies include impact avoidance, mitigation of unavoidable impacts, and,
10 in general, compliance with relevant natural resource policies. The proposed fill will conform to
11 sound policies of conservation because opportunities to avoid impacts to wetlands and aquatic
12 resources have been evaluated and incorporated in the site selection and final design layout and
13 because the applicant will mitigate impacts under a mitigation plan reviewed and approved by
14 EFSC in consultation with DSL. Siting of the energy facility and related or supporting facilities
15 avoids sensitive habitats related to wetlands and riparian areas to the maximum extent
16 practicable. The proposed fill would be located within an area zoned RIPD and would not
17 interfere with public health and safety.

18
19 *“(f) Whether the proposed fill is in conformance with existing public uses of
20 the waters and with uses designated for adjacent land in an acknowledged
21 comprehensive plan and zoning ordinances; and*

22
23 *“(g) Whether the proposed fill is compatible with the acknowledged
24 comprehensive plan and land use regulations for the area where the
25 proposed fill is to take place.”*

26
27 The proposed fill is in conformance with existing public uses of the waters of the state. The area
28 of proposed fill is within a Port-owned, isolated wetland. Construction and operation of the
29 facility would not result in a net loss of wetland acreage or function because Summit/Westward’s
30 mitigation plan would replace wetland functions by creation of new wetlands at a 1.5:1 ratio
31 within the facility site. The construction of a palustrine emergent depressional wetland would
32 provide waterfowl and invertebrate habitat.

33
34 The proposed fill and adjacent lands are zoned RIPD. The proposed fill complies with uses
35 designated for these lands and with the acknowledged comprehensive plan, as discussed in detail
36 in the land use analysis, Attachment E of this Order.

37
38 *“(h) Whether the proposed fill is for streambank protection.”*

39
40 The proposed fill has no relation to streambank protection.

41
42 Administrative Rule Standards

43 OAR 141-085-0050(2) requires an evaluation of probable impacts, including cumulative
44 impacts, of the proposed fill activity and its intended use on the water resources by considering
45 certain factors in addition to those required by the statute:

1
2 “(a) *The environmental and economic consequences of the proposed fill or*
3 *removal.*”

4
5 The proposed fill would have minimal environmental impact. The site certificate will be
6 conditioned to require specific mitigation measures to minimize impact to waters of the state and
7 wildlife habitat, imposed by EFSC in consultation with ODFW and DSL. There appear to be no
8 adverse economic consequences of the fills, and Attachment D of this order includes a finding
9 that the energy facility for which the fill is proposed complies with the economy element of the
10 county’s acknowledged comprehensive plan.

11
12 “(b) *Direct and indirect effects of the fill or removal on submerged and/or*
13 *submersible lands.*”

14
15 No direct or indirect effects on submerged and submersible lands are expected from the proposed
16 fill or removal activity for the energy facility.

17
18 “(c) *Effects of the fill or removal on the hydraulic characteristics of the fill or*
19 *removal site and surrounding areas, such as water circulation, tidal*
20 *fluctuation, current patterns and flood hazards.*”

21
22 Impacts related to construction and operation of the energy facility would include filling 0.35
23 acre of isolated emergent wetlands and 0.13 acre of drainage ditch. Elimination of this portion of
24 the ditch would not interfere with naturally occurring surroundings and manmade flow regimes,
25 or the flow patterns off the energy facility site. There would be no impacts to the Beaver
26 Drainage District irrigation canals. Therefore, no permanent effect is expected on circulation,
27 hydraulic characteristics, current patterns, or flood hazard.

28
29 “(d) *Effects of the fill or removal on special aquatic sites and refuges,*
30 *sanctuaries and scenic waterways.*”

31
32 The proposed fill would not affect refuges, sanctuaries, or scenic waterways. Summit/Westward
33 has determined, and OOE concurs after consultation with DSL, that the existing on-site wetlands
34 have only moderate functional levels. They are and have been historically affected by grazing
35 and haying, and they do not appear to possess the characteristics of “special aquatic sites.”

36
37 “(e) *Effects of the fill or removal on water supply, water access, public*
38 *recreation and aesthetics.*”

39
40 The proposed fill would not interfere with water supply, water access, or public recreation.
41 Potential impacts from the energy facility for which the fill is proposed are discussed in detail in
42 the sections of this Order addressing the Council’s public services standard (for water supply and
43 water access), the Council’s recreation standard, and the Council’s scenic and aesthetic values
44 standard. The Council has adopted conditions under those standards, and those conditions would
45 apply to the fill, as well as to the energy facility for which the fill is proposed.

1
2 “(f) *Effects of the fill or removal on water quality and aquatic life and*
3 *habitats.*”
4

5 Summit/Westward would fill 0.35 acre of wetlands and 0.13 acre of drainage ditch that currently
6 provide little, if any, contribution to sediment trapping function and nutrient retention. The 0.35-
7 acre of seasonal wetlands is currently used (and has been used for decades) for cattle and sheep
8 grazing and is hayed annually. Due to the continuous removal of vegetation through these
9 processes, this wetland is of marginal value with respect to providing aquatic life habitat. In
10 addition, the drainage ditch, 0.13 acre of which would be filled, is annually maintained to
11 remove vegetation and debris to maintain overall effectiveness of the drainage system.
12

13 Summit/Westward’s compensatory mitigation plan would adequately compensate for water
14 quality functions by providing a seasonal palustrine emergent wetland to replace lost functions
15 and values. The Council finds that the compensatory mitigation plan, with conditions
16 recommended by DSL and set forth in Attachment D to this Order, complies with DSL
17 compensatory mitigation rules.
18

19 “(g) *Whether the proposed fill or removal activity adversely affects the health,*
20 *safety and welfare of the people of this state.*”
21

22 The proposed fill would not adversely affect public health, safety and welfare.
23

24 OAR 141-085-0050(3) requires consultation with local governments to determine that the
25 proposed fills are consistent with the local comprehensive plan and ordinances and planning
26 goals. Under the energy facility siting process set forth at ORS 469.504, the Council will review
27 the proposed fills and the energy facility for which they are proposed and make the required
28 findings regarding compliance with the comprehensive plan and Statewide Planning Goals.
29 Attachment E of this Order includes the required findings of compliance. Moreover, the Council
30 appointed the Columbia County Board of Commissioners as a special advisory group. The
31 commissioners commented that the Project meets the comprehensive plan and zoning ordinance,
32 subject to certain conditions that will be incorporated into the site certificate. Therefore, the
33 requirement to consult with local governments regarding land use compliance is satisfied.
34

35 OAR 141-085-0050(4) provides that no permit to fill or remove material shall be issued until
36 certain determinations have been made:
37

38 “(a) *The project is consistent with the water quality and toxic effluent*
39 *standards of the State of Oregon as administered by the Oregon*
40 *Department of Environmental Quality and would not result in significant*
41 *degradation of the waters of the state*”
42

43 Federal regulations and the State of Oregon require the Summit Project to obtain a New NPDES
44 General Permit #1200-C for discharges of storm water runoff during construction of the facility.
45 To obtain this permit, Summit/Westward must develop an SWPPP for the entire construction

1 site. The main purpose of the SWPPP is to protect local water quality by reducing pollutants in
2 storm water discharges from the construction site.

3
4 As more fully described in Section E.7 of this Order and the conditions imposed under that
5 section, Summit/Westward would implement measures to control wastewater during
6 construction, operation, and retirement of the facility. In addition, as described in Sections F.1.d
7 and F.1.e of this Order and the conditions imposed under those sections, Summit/Westward has
8 met DSL requirements for a WPCF Permit for Sanitary Waste and a WPCF Permit for
9 Temporary Process Water Disposal.

10
11 “ (b) *The project meets historical and archaeological site preservation*
12 *requirements of ORS 390.235*”

13
14 As more fully described in Section E.4 of this Order, Summit/Westward has demonstrated that
15 no archaeological sites were identified in the analysis area for the Summit Project. Conditions
16 imposed under that section are designed to ensure compliance with relevant state and federal
17 laws and regulations in the event unanticipated archaeological or historical resources are
18 encountered during construction of the facility.

19
20 “ (c) *There is no practicable alternative to the proposed fill or removal which*
21 *would have less adverse impact on the water resources of the State of*
22 *Oregon*”

23
24 Avoidance of impacts on water resources was a primary consideration in selection of the final
25 site design. Summit/Westward evaluated several design layout options in an effort to identify an
26 alignment that minimized impacts to the environment, including wetlands and other aquatic
27 resources. Summit/Westward selected a final site layout that provides the best balance between
28 the multiple requirements contained in the Council’s energy facility siting process. Extensive
29 redesign of the energy facility and related or supporting facilities was implemented to avoid
30 impacts to jurisdictional wetlands and drainage ditches to the maximum extent practicable, while
31 accommodating constraints placed on the facility by existing roads, utilities, structures, and
32 manufacturer design criteria. The final design layout of the facility reflects the avoidance and
33 minimization of temporary and permanent impacts to water resources.

34
35 “ (d) *The project would not adversely affect rare, threatened or endangered*
36 *species in the State of Oregon.*”

37
38 As more fully discussed in Sections D.7 and D.8 of this Order, Summit/Westward has evaluated
39 the analysis area for the presence of rare, threatened, and endangered species. A detailed analysis
40 of habitats known to be important to rare, threatened, or endangered species is provided in
41 support of findings of compliance with the EFSC threatened and endangered species standard,
42 OAR 345-022-0070. Based on the information contained in Exhibits P and Q, and subject to the
43 conditions imposed under Sections D.7 and D.8 of this Order, the Council finds that the Summit
44 Project meets the EFSC threatened and endangered species standard and therefore would not
45 adversely affect rare, threatened, or endangered species in the state of Oregon.

1
2 “(e) *The project individually or collectively would not cause significant*
3 *degradation of municipal water supplies; aquatic life and habitats;*
4 *functions of the aquatic ecosystem; or recreational, aesthetic and*
5 *economic values of the water resources of the state.*”
6

7 As more fully discussed in Section E.6 of this Order, Summit/Westward has demonstrated that
8 construction and operation of the energy facility would not cause significant degradation of
9 municipal water supplies. All unavoidable impacts of the proposed fill would be offset by
10 compensatory mitigation through creation of new wetlands at a 1.5:1 ratio within the facility site.
11 The construction of a palustrine emergent depressional wetland would provide waterfowl and
12 invertebrate habitat. Waters of the state affected by the proposed fill are not used for navigation,
13 fishing, or recreation.
14

15 “(f) *Appropriate and practicable steps have been taken which will minimize*
16 *adverse impacts of the fill or removal on aquatic life and habitats.*”
17

18 Summit/Westward extensively redesigned the energy facility and related or supporting facilities
19 to avoid impacts to jurisdictional wetlands and drainage ditches to the maximum extent
20 practicable, while accommodating constraints placed on the facility by existing roads, utilities,
21 structures, and manufacturer design criteria. The final design layout of the facility reflects the
22 avoidance and minimization of temporary and permanent impacts to aquatic life and habitats.
23

24 **DSL Regulations Regarding Application and Mitigation Requirements**

25 DSL rules at OAR 141-085-0025 set forth the information requirements for a removal-fill permit
26 application. DSL rules at OAR 141-085-0115, -0120, -0150, -0155, -0160, and -0165 set forth
27 detailed requirements for mitigation plans. Summit/Westward submitted information to
28 demonstrate that the permit application and the mitigation plans complied with DSL’s rules.
29

30 On March 29, 2002, DSL acknowledged receipt of Summit/Westward’s Removal-Fill Permit
31 Application and indicated that additional information was necessary. DSL staff and OOE’s
32 consultant met with Summit/Westward’s biology consultant at the Project site and gathered the
33 required information. On May 29, 2002, DSL provided OOE with a draft permit (Attachment D
34 to this Order) and proposed conditions to be included in the compensatory mitigation plan,
35 indicating that DSL would be able to issue the permit upon execution of an EFSC site certificate.
36 The Council finds that the Summit/Westward Removal-Fill Permit Application complied with
37 applicable DSL rules.
38

39 Under OAR 141-085-0015(1)(a), DSL must determine that the “applicant’s demonstration of
40 impracticability is sufficient.” “Impracticability” refers to the provision of OAR
41 141-085-0050(4)(c) that requires a finding that “there is no practicable alternative to the
42 proposed fill or removal which would have less adverse impact on the water resources of the
43 State of Oregon.” OOE has recommended that the Council find that this standard is met. Thus
44 OOE also recommends that the Council find that Summit/Westward’s demonstration of
45 impracticability is sufficient for purposes of analyzing the compensatory mitigation plan. As

1 noted above, the Project will result in permanent impact to wetlands and, thus, compensatory
2 mitigation is required. Summit/Westward has submitted a plan as described above. DSL
3 recommended acceptance of the mitigation plan, subject to conditions. The Council finds that the
4 compensatory mitigation plan, with conditions recommended by DSL and set forth in
5 Attachment D to this Order, complies with DSL compensatory mitigation rules.
6

7 **Consistency with DSL Statutes and Rules**

8 The Council finds that, subject to the conditions stated in this Order, the Summit Project is
9 consistent with DSL's removal-fill permit and mitigation requirements for the reasons stated
10 below:

- 11 • Summit/Westward has sought to avoid and minimize impacts to jurisdictional
12 waters;
- 13 • The affected wetlands do not now offer uses related to fishing, navigation, or
14 recreation;
- 15 • No navigable waters will be affected by the Summit Project;
- 16 • Proposed impacts are to a low-quality, isolated, grazed wetland and a portion of
17 an excavated drainage ditch;
- 18 • Summit/Westward has addressed DSL permit application requirements and
19 submitted the appropriate fees to the agency;
- 20 • DSL has reviewed the Removal-Fill Permit Application, has concurred in the
21 wetland delineation, and has recommended that the Council approve issuance of
22 the removal-fill permit;
- 23 • Mitigation for impacts to wetlands would be on-site and in-kind and would
24 replace lost functions and values;
- 25 • No rare, threatened, or endangered species would be adversely affected by the
26 Summit Project;
- 27 • Monitoring would be conducted for three years, with an annual monitoring report
28 submitted to DSL; and
- 29 • Contingency measures would be implemented to ensure the mitigation area meets
30 mitigation goals and permit conditions.
31

32 **Recommended Conditions**

33 The Council adopts the following conditions in the site certificate:
34

- 35 (1) **Before beginning construction of the energy facility, the certificate holder
36 shall obtain a U.S. Army Corps of Engineers and Oregon Division of State
37 Lands ("DSL") Joint Removal-Fill Permit substantially in the form of the
38 Draft Removal-Fill Permit in Attachment D of this order; provided that
39 mitigation required under the removal-fill permit shall allow for
40 accommodation of Corps of Engineers mitigation requirements, subject to
41 the concurrence of the Office, in consultation with DSL and affected federal
42 agencies.
43
44**

1 (2) **Before beginning construction of the facility, the certificate holder shall**
2 **submit to the Office a final mitigation plan approved by DSL.**

3
4 (3) **The certificate holder shall comply with state laws and rules applicable to the**
5 **removal-fill permit that are adopted in the future to the extent that such**
6 **compliance is required under the respective statutes and rules.**

7
8 **Conclusion**

9 The Council finds that the Summit Project complies with ORS 196.800.990 and the
10 implementing regulations of DSL, subject to the foregoing conditions.

11
12 **F.1.c. Public Health and Safety**

13
14 **The Requirement.** Pursuant to ORS 469.310, the Council is charged with ensuring that the
15 “siting, construction and operation of energy facilities shall be accomplished in a manner
16 consistent with protection of the public health and safety.” State law further provides that “the
17 site certificate shall contain conditions for the protection of the public health and safety.” ORS
18 469.401(2).

19
20 **Discussion**

21 The site certificate will contain conditions for the protection of the public health and safety with
22 respect to several Council standards. However, certain public health and safety issues that are not
23 otherwise addressed in Council standards warrant special attention. In particular, the Council
24 should address (1) potential for cooling tower fogging and icing affecting driving conditions on
25 public roads, (2) potential health concerns regarding electric and magnetic fields from high-
26 voltage transmission lines, (3) coordination with the Oregon Public Utility Commission (the
27 “PUC”) to ensure that the certificate holder designs and builds the electrical transmission lines
28 and natural gas pipeline in accordance with the appropriate codes and standards, and
29 (4) pipeline safety monitoring consistent with OAR 345-027-0020(3)(b). These four issues are
30 discussed below.

31
32 **Cooling Tower Fogging and Icing**

33 The energy facility would use mechanical draft cooling towers, which could potentially increase
34 fogging and icing along local roads under certain weather conditions. Ground-level fogging
35 occurs when the cooling tower plume approaches ground level. Icing can occur during periods
36 when ground-level fogging coincides with freezing surface temperatures. Either event may
37 adversely affect local driving conditions.

38
39 Summit/Westward prepared a modeling analysis to predict the formation of ground-level fogging
40 and icing that would result from operation of the energy facility. Weather data for the five-year
41 period from 1986 through 1990 were used in the model. For the range of meteorological
42 conditions used, the model predicted that ground-level fogging and icing would not occur.

43
44 Modeling of the cooling tower plume from the PWGP that is proposed to be located near the
45 Summit Project predicted a substantially larger and more frequent visible plume, some ground-

1 level fogging, and very infrequent icing. The Office asked consultant Pacific Energy Systems to
2 evaluate possible reasons for the substantially different model results for the two energy
3 facilities. Both applicants used the same computer model. However, the modeling for PWGP was
4 based on Portland weather, while the modeling for the Summit Project was based on Astoria
5 weather. The Summit Project uses a substantially higher air flow, a lower rate of heat rejection,
6 and a smaller tower diameter. These three factors would likely tend to result in less ground-level
7 fogging and icing. Furthermore, observations at the nearby Beaver Power Plant indicate that the
8 plume generated from that plant is substantially smaller than the plume predicted by PGE for the
9 proposed PWGP.

10
11 While not conclusive, the comparative analysis by Pacific Energy Systems provides a plausible
12 explanation for the differences in the model results for the two energy facilities. Furthermore,
13 ground-level fogging and icing from the PWGP are not predicted to adversely affect safety along
14 public roads. Therefore, it is reasonable to conclude that fogging and icing from the proposed
15 Summit Project is unlikely to adversely affect public safety.

16
17 Actual weather conditions could differ from the conditions during the five-year period used in
18 the modeling analysis. Therefore, while the likelihood of ground-level fogging or icing along
19 public roads is small, it is not zero.

20
21 The Council finds that ground level fogging and icing along public roads attributable to the
22 operation of the energy facility is not likely and is not likely to pose a significant threat to public
23 safety.

24
25 Because weather patterns may vary from those applied in the modeling analysis, the Council
26 adopts the following condition in the site certificate:

- 27
28 **(1) If, at any time during the life of the energy facility, the Council finds that the**
29 **operation of the energy facility is likely to contribute significantly to ground-**
30 **level fogging or icing along public roads and is likely to pose a significant**
31 **threat to public safety, the certificate holder shall cooperate with appropriate**
32 **local public safety authorities regarding the posting of warning signs on**
33 **affected roads and regarding the implementation of other reasonable safety**
34 **measures. Cooperation may include, but is not necessarily limited to, the**
35 **reimbursement of expenses for posting warning signs and implementing**
36 **other safety measures.**

37
38 **Transmission Lines**

39 **Electric Fields.** Strong electric fields can induce electric currents in nearby objects, such as
40 fences. If proper precautions are not taken, these induced currents might result in electric shocks.

41
42 The Council has adopted a limit for electric fields from transmission lines of 9 kV per meter at
43 one meter above the ground surface in areas that are accessible to the public. OAR
44 345-024-0090(2). The BPA guidelines for its transmission lines limit electric fields to a

1 maximum of 9 kV per meter within the right-of-way, 5 kV per meter at the edge of the right-of-
2 way, and 5 kV per meter at highway crossings. (BPA Red Book, 1993.)
3

4 As discussed in Section D.2.c of this Order, Summit/Westward would contract with PGE for
5 transmission to the BPA Allston Substation. The site certificate for that transmission line is
6 considered a third-party permit, and the conditions for its construction and operation will appear
7 in the PWGP site certificate. Summit/Westward will construct the Summit/Westward on-site
8 electrical transmission line, which will be about 1,000 feet long from its switchyard to the
9 connection with the PWGP transmission line. There are no residences along this 1,000-foot
10 corridor, and the land is under a 99-year lease to Summit/Westward. Therefore, it is unlikely that
11 EMF from this 1,000-foot transmission line would affect members of the public. However,
12 agriculture may continue along part of the corridor.
13

14 The Council adopts the following conditions in the site certificate with respect to the 1,000-foot
15 corridor for the Summit/Westward on-site electrical transmission line:
16

- 17 (2) **The certificate holder shall design the Summit/Westward on-site**
18 **transmission line so that alternating-current electric fields shall not exceed 9**
19 **kV per meter at one meter above the ground surface in areas accessible to**
20 **the public.**
21
- 22 (3) **The certificate holder shall design the Summit/Westward on-site**
23 **transmission line so that induced currents resulting from the transmission**
24 **line are as low as reasonably achievable.**
25
- 26 (4) **The certificate holder shall develop and implement a program that provides**
27 **reasonable assurance that all fences, gates, cattle guards, trailers, or other**
28 **objects or structures of a permanent nature that could become inadvertently**
29 **charged with electricity are grounded or bonded throughout the life of the**
30 **Summit/Westward on-site transmission line.**
31

32 The Council finds that the proposed transmission line is consistent with protecting public health
33 and safety in regard to electric fields.
34

35 **Magnetic Fields.** There has been concern that exposure to magnetic fields might cause health
36 risks. This issue has been the subject of considerable scientific research and discussion.
37

38 The Council has previously considered this issue. Based on its review, the Council concluded
39 that the credible evidence relating low levels of exposure to health risks was inconclusive and
40 that there was insufficient information upon which to set “health-based” limits for exposure to
41 magnetic fields. The Council recommended that, given the uncertainty as to health
42 consequences, those who propose transmission lines under the Council’s jurisdiction should use
43 low-cost ways to reduce or manage public exposure to magnetic fields. This approach is
44 sometimes referred to as “prudent avoidance.”
45

1 Several other authorities have considered this issue and have reached conclusions similar to
2 those of the Council. As part of the 1992 Energy Policy Act, the U.S. Congress authorized the
3 Electric and Magnetic Fields Research and Public Information Dissemination Program (“EMF-
4 RAPID Program”). The EMF-RAPID Program was a \$30.1 million federal/private partnership
5 with substantial financial support from the utility industry. It culminated in a report by the
6 National Institute of Environmental Health Sciences (“NIEHS”) in May 1999, entitled “Health
7 Effects from Exposure to Power-Line Frequency Electric and Magnetic Fields” (NIH Publication
8 No. 99-4493).

9
10 The NIEHS report includes the following conclusions:

- 11
12 1. The scientific evidence suggesting that extremely low-frequency electric and
13 magnetic fields (“ELF-EMF”) exposures pose any health risk is weak. The only
14 health impacts of concern are childhood leukemia and chronic lymphocytic
15 leukemia in occupationally exposed adults. Epidemiological studies of humans
16 show a pattern of small increased risk of leukemia with increasing exposure to
17 ELF-EMF.
- 18
19 2. Mechanistic studies and experimental studies on non humans do not indicate any
20 increase in leukemia as a result of exposure to ELF-EMF, although sporadic
21 findings of increases in other forms of cancer in experimental animals have been
22 reported. A causal link that would explain the weak epidemiological evidence of
23 increased leukemia has not been found.
- 24
25 3. ELF-EMF cannot be recognized as entirely safe. However, the evidence that
26 exposure may pose a leukemia hazard is too weak to warrant aggressive
27 regulatory concern. Passive regulatory action is warranted.

28
29 The Office received one public comment, stating that the transmission line to the BPA Allston
30 Substation posed risk to human health and safety because new studies suggest that EMF poses
31 greater risk than previously thought. However, that transmission line would be permitted and
32 constructed by Portland General Electric Transmission Group under the site certificate for its
33 proposed PWGP. It is therefore considered a “third party permit” as discussed in detail at Section
34 D.2.d of this Order. For that reason, the detailed discussion of health impacts from the
35 transmission line from Port Westward to the BPA Allston Substation is appropriately contained
36 in a Council order regarding PGE’s application for site certificate for the PWGP.

37
38 The Council adopts the following condition in the site certificate:

- 39
40 **(5) The certificate holder shall take reasonable steps to reduce or manage**
41 **exposure to electromagnetic fields (“EMF”), consistent with Council**
42 **findings presented in the “Report of EMF Committee to the Energy Facility**
43 **Siting Council,” March 30, 1993, and subsequent findings. Effective on the**
44 **date of this site certificate, the certificate holder shall provide information to**

1 **the public, upon request, about EMF levels associated with the energy**
2 **facility and the Summit/Westward on-site transmission line.**
3

4 **Coordination with the PUC.** The PUC has requested that the Council ensure that applicants for
5 site certificates coordinate with the PUC staff with respect to the design of and specifications for
6 electrical transmission lines and natural gas pipelines. Inadvertent, but costly, design and
7 specification mistakes may be corrected early and easily if the applicant consults with the PUC
8 staff responsible for safety codes and standards.
9

10 The Council therefore adopts the following condition in the site certificate to ensure timely
11 consultation with the PUC:
12

- 13 **(6) At least 30 days before beginning preparation of detailed design and**
14 **specifications for the Summit/Westward on-site electrical transmission line**
15 **and the related or supporting natural gas pipeline, the certificate holder shall**
16 **consult with the Oregon Public Utility Commission (“PUC”) staff to ensure**
17 **that its designs and specifications are consistent with applicable codes and**
18 **standards.**
19

20 **Pipeline Safety Monitoring.** Summit/Westward states that it will implement a routine
21 maintenance plan to walk the corridor of the gas pipeline connecting the energy facility to the K-
22 B Pipeline and to determine if there are any small leaks. The Kelso-Beaver natural gas
23 transmission pipeline has odorant added for leak detection. Summit/Westward would rely on the
24 odorant as the chief means of leak detection. Major leaks can also be detected remotely by
25 operating parameters such as pressure and flow.
26

27 The gas pipeline would be coated to protect it from corrosion, and Summit/Westward would be
28 required to meet OPUC regulations that mandate the use of cathodic protection. A nearby gas
29 pipeline between the Beaver Power Plant and the U.S. Gypsum manufacturing plant in Rainier,
30 Oregon experienced serious corrosion problems because of a failure to promptly activate that
31 pipeline’s cathodic protection system. Therefore, the Council adopts the following condition in
32 the site certificate requiring Summit/Westward to activate the cathodic protection on its gas
33 pipeline immediately upon installation:
34

- 35 **(7) The certificate holder shall ensure that cathodic protection meeting the**
36 **requirements of the OPUC and 49 CFR § 192 be activated as soon as**
37 **practicable following installation of the gas pipeline connecting the energy**
38 **facility to the Kelso-Beaver pipeline.**
39

40 Summit/Westward also states that the pipeline would be electrically isolated from the K-B
41 Pipeline. Therefore, rather than recommending the generic pipeline safety conditions of OAR
42 345-027-0023, the Council adopts the following more-specific conditions in the site certificate:
43

1 (8) **The certificate holder shall take steps to ensure that the pipeline connecting**
2 **the energy facility to the Kelso-Beaver pipeline is electrically isolated from**
3 **the Kelso-Beaver pipeline.**

4
5 (9) **The certificate holder shall implement a regular schedule to walk the**
6 **corridor of the gas pipeline connecting the energy facility to the Kelso-Beaver**
7 **pipeline and inspect for leaks.**

8
9 **Conclusion**

10 The Council finds that the siting, construction and operation of the energy facility is consistent
11 with protection of the public health and safety, pursuant to ORS 469.310.

12
13 **F.1.d. DEQ WPCF Permit for Sanitary Waste**

14
15 **The Requirement.** The development of an on-site sewage treatment system incorporating a
16 textile filter system and raised drip irrigation bed is considered a form of wastewater discharge
17 and therefore requires a WPCF permit from DEQ. The WPCF permit is not federally delegated
18 but rather is a state-level permit that falls under Council jurisdiction.

19
20 **Discussion**

21 After completion of construction of the Summit Project, Summit/Westward expects it will
22 employ 16 employees per 24-hour period. Sanitary facilities would produce about 35 gallons of
23 residential-strength waste per employee per day, or a total of about 560 gallons of residential-
24 strength waste per day. Treatment of this waste would be by means of one 1,500-gallon
25 septic/recirculation tank, one OSI-Advantex AX-20 recirculating textile filter, and one 1,000-
26 gallon dose tank. Disposal would be to a 3,000-square-foot raised drip irrigation bed.
27 Summit/Westward expects the Advantex treatment unit to produce effluent with the following
28 characteristics: BOD < 20 milligrams per liter (“mg/l”), TSS < 20 mg/l, and TKN < 20 mg/l.
29 These systems are relatively common, and their operational capabilities are well documented and
30 understood. DEQ has reviewed and approved such systems in the past, subject to the condition
31 that if the system does not perform, the certificate holder would be required to replace it.

32
33 **DEQ Requirements.** Pursuant to OAR chapter 340, division 71, persons proposing a textile
34 filter system must obtain a WPCF permit from DEQ. Summit/Westward submitted its WPCF
35 permit application for on-site sewage treatment and disposal (Application No. 986837) to DEQ
36 on January 24, 2002.

37
38 **DEQ Recommendation**

39 After review of the Summit/Westward application and a site inspection on February 8, 2002,
40 DEQ stated that the conceptual plans for the proposed system showed the proposed Project to be
41 feasible. However, in the course of its groundwater prioritization, DEQ observed that the
42 proposed drainfield may be located in an area zoned such that drinking water wells may be
43 installed within 1,000 feet of the drainfield in the future. DEQ recorded the following
44 observations:

1 All domestic wells are over the 100-foot setback required by OAR chapter 340,
2 division 71. There is a domestic private well about one-fourth mile from the
3 energy facility. The initial groundwater in this area is essentially the Columbia
4 River and can be expected to discharge to the river.
5

6 The site does not meet division 71 on-site rules criteria for any standard or
7 alternative method of on-site subsurface sewage disposal. However, as per OAR
8 340-071-0130(20), DEQ may allow variations from the criteria and/or
9 technologies when the applicant or DEQ has adequate documentation of
10 successful operation of the technology or design. DEQ and the applicant are
11 willing to try the innovative technology of a raised irrigation bed that follows a
12 recirculating textile filter. If it fails to provide the necessary treatment and/or it
13 creates a public health hazard, the permittee will be required to change to another
14 technology, such as land irrigation. Flows are low enough that even a holding
15 tank might be economically feasible. In any case, the potential to impact the
16 groundwater is negligible.
17

18 DEQ recommended that the Council instruct it to issue the WPCF permit with conditions
19 contained in the draft WPCF permit (Attachment B). The Council adopts the following
20 conditions in the site certificate:
21

- 22 (1) **Before beginning operation of the energy facility, the certificate holder shall**
23 **demonstrate that the DEQ has issued to the certificate holder a Water**
24 **Pollution Control Facilities Permit, substantially in the form of Attachment**
25 **B, allowing for on-site sanitary waste disposal.**
- 26
- 27 (2) **The certificate holder shall comply with state laws and rules applicable to**
28 **Water Pollution Control Facilities Permits for sanitary waste that are**
29 **adopted in the future to the extent that such compliance is required under**
30 **the respective statutes and rules.**
31

32 **Conclusion**

33 The Council finds that the Summit Project meets the requirements for a WPCF permit for
34 sanitary waste, with the conditions contained in Attachment B to this Order, and the Council
35 instructs DEQ to issue Summit/Westward a WPCF permit substantially in the form contained in
36 Attachment B to this Order.
37

38 **F.1.e. DEQ WPCF Permit for Temporary Process Water Disposal**

39

40 **The Requirement.** Storage ponds are considered a temporary form of wastewater discharge and
41 therefore require a WPCF permit from the DEQ. The WPCF permit is not federally delegated but
42 rather is a state-level permit that falls under Council jurisdiction.
43

1 **Discussion**

2 Summit/Westward proposes to process wastewater by installing a zero liquid discharge system.
3 This system would treat concentrated brine from the circulating water treatment. Processed
4 wastewater would be reused in the plant rather than discharged, and concentrated brine solids
5 would be shipped to a regulated landfill site for disposal.
6

7 Summit/Westward would construct two storage ponds on the energy facility site to provide for
8 temporary storage of wastewater in the event the brine crystallizer were to become inoperative.
9 One pond would be about 2.71 acres; the other would be about 0.9 acre. The ponds would be
10 constructed with double liners to protect against seepage of wastewater. When the brine
11 crystallizer again became operational, any wastewater stored in these ponds would be
12 recirculated back to the brine crystallizer system for treatment. Summit/Westward does not plan
13 to use the storage ponds for long-term storage of concentrated brine.
14

15 **DEQ Requirements.** Specific regulations for WPCF permits are contained in OAR chapter 340,
16 division 45, "Regulations Pertaining to NPDES and WPCF Permits." The permit is required
17 pursuant to OAR 340-045-0015(1)(b), which provides: "Without first obtaining a permit from
18 the Director, no person shall *** construct, install, modify, or operate any disposal system or
19 part thereof or any extension or addition thereto."
20

21 Pertinent definitions from OAR 340-045-0005, include the following:
22

23 "*Disposal*" means the placement of wastes into public waters, on land or otherwise into
24 the environment in a manner that does or may tend to affect the quality of public waters.
25

26 "*Disposal system*" means a system for disposing of wastes, either by surface or
27 underground methods.
28

29 DEQ regulations at OAR chapter 340, division 045 include the following requirements for a
30 WPCF permit application:
31

- 32 1. A complete description of the proposal;
- 33 2. The location of the project and adjacent facilities and waterways;
- 34 3. Schedule for development;
- 35 4. Schematic diagrams of industrial processes, waste streams, and treatment;
- 36 5. Disposal of solid waste and sludges;
- 37 6. Groundwater information;
- 38 7. Evaluation of groundwater and surface water impacts.
39

40 **DEQ Recommendation**

41 Summit/Westward submitted the WPCF permit application to DEQ on December 17, 2001. In a
42 letter from Elliot Zais to Mr. Bless dated February 7, 2002, DEQ stated that Summit/Westward
43 had supplied the required exhibits and that DEQ had reviewed them and considered them
44 satisfactory. DEQ recommended that the Council instruct it to issue the WPCF permit with

1 conditions contained in the draft WPCF permit (Attachment C to this Order). The Council adopts
2 the following conditions in the site certificate:

- 3
- 4 **(1) Before beginning operation of the energy facility, the certificate holder shall**
5 **demonstrate that DEQ has issued to the certificate holder a Water Pollution**
6 **Control Facilities Permit, substantially in the form of Attachment C,**
7 **allowing for temporary process water disposal.**
- 8
- 9 **(2) The certificate holder shall comply with state laws and rules applicable to**
10 **Water Pollution Control Facilities Permits that are adopted in the future, to**
11 **the extent that such compliance is required under the respective statutes and**
12 **rules.**

13

14 **Conclusion**

15 The Council finds that the Summit Project meets the requirements for a WPCF permit for
16 temporary process water disposal, with the conditions contained in Attachment C to this Order,
17 and the Council instructs DEQ to issue Summit/Westward a WPCF permit substantially in the
18 form contained in Attachment C to this Order.

19

20 **F.2. REQUIREMENTS THAT ARE NOT UNDER COUNCIL JURISDICTION**

21

22 **F.2.a. Federally Delegated Programs**

23 The Council does not have jurisdiction for determining compliance with those statutes and rules
24 for which the permitting decision has been delegated by the federal government to a state agency
25 other than the Council. However,

26

27 “***[a]ny permit application for which the permitting decision has been delegated
28 by the federal government to a state agency other than the Energy Facility Siting
29 Council shall be reviewed, whenever feasible, simultaneously with the Council's
30 review of the site certificate application. Any hearings required on such permit
31 applications shall be consolidated, whenever feasible, with hearings under ORS
32 469.300 to 469.563 and 469.590 to 469.619.” ORS 469.505(1).”

33

34 The following programs are not within the Council’s jurisdiction, because they are federally
35 delegated programs:

- 36
- 37 1. The Air Contaminant Discharge Permit program administered by DEQ, which
38 includes the federally delegated new source review requirements of the Clean Air
39 Act and the Prevention of Significant Deterioration (PSD) program. This
40 authority is in ORS chapter 468A and OAR chapter 340, divisions 20, 21, 22, 25,
41 and 31;
- 42
- 43 2. The NPDES permit program administered by DEQ - Water Quality Division,
44 which regulates and permits storm water runoff and discharges to public waters;
- 45

- 1 3. The program regulating the design, operation, monitoring, and removal of
2 underground storage tanks that contain certain toxic and hazardous materials,
3 including petroleum products, administered by DEQ, under ORS chapter 466 and
4 OAR chapter 340, division 150; and
5
- 6 4. Design and safety standards for natural gas pipelines and electric transmission
7 lines administered by the PUC, Safety Section under ORS chapter 757 and OAR
8 chapter 860, division 24.
9

10 **F.2.b. Requirements That Do Not Relate to Siting**

11 Under ORS 469.401(4), the Council does not have jurisdiction for determining compliance with
12 state and local government programs that address design-specific construction or operating
13 standards and practices that do not relate to siting. However, the Council may rely on the
14 determinations of compliance and the conditions in the permits issued by these state agencies and
15 local governments in making its determinations as to whether the standards and requirements
16 under the Council's jurisdiction are met.
17

18 The Council concludes that, for the proposed facility, the following state and local government
19 programs are not within the Council's jurisdiction, because the programs address design-specific
20 construction or operating standards and practices not related to siting:
21

- 22 1. The Oil Spill Contingency and Prevention Plan program, administered by DEQ
23 Water Quality Division under ORS chapter 468B and OAR chapter 340, division
24 47, which regulates petroleum products transport, storage, handling, and spill
25 control and prevention;²
26
- 27 2. Regulations of building, structure design and construction practices by the Oregon
28 Building Codes Division under ORS chapters 447, 455, 460, 476, 479, and 480
29 and OAR chapter 918, divisions 225, 290, 301, 302, 400, 440, 460, 750, 770, and
30 780;
31
- 32 3. Various programs addressing fire protection and fire safety and the storage, use,
33 handling, and emergency response for hazardous materials and community right-
34 to-know laws for hazardous materials, administered by the Oregon State Fire
35 Marshal's Office, under ORS chapters 453, 476, and 480 and OAR chapter 837,
36 divisions 40 and 90;
37
- 38 4. Regulations on the size and weight of truck loads on state and federal highways
39 administered by the Oregon Department of Transportation ("ODOT") under ORS
40 chapter 818 and OAR chapter 743, division 82;

² In its application, Summit/Westward relies on the SPCC plan to show that spills resulting in adverse impacts to soils and excessive site restoration costs are unlikely. Therefore, this Order recommends conditions requiring the plan. However, the details of the plan are subject to DEQ review.

5. The program regulating the possession, use, and transfer of radioactive materials administered by the Oregon State Health Division (“OSHD”) under ORS chapter 453 and OAR chapter 333, divisions 100-19;
6. Regulations of domestic water supply systems regarding potability administered by OSHD under ORS chapter 448;
7. Permits required from ODOT to place a structure within, or to cross, a state highway right-of-way; and
8. Building permits required and administered by Columbia County.

F.3 SPECIAL CRITERIA FOR EXPEDITED REVIEW

Pursuant to 2001 HB 3788, codified at ORS 469.373, natural-gas-fired electric generating facilities that meet the criteria listed at ORS 469.373(1)(a) through (f) may qualify for Council review under an expedited process, described at ORS 469.373(2) through (10).

Summit/Westward submitted a written request for such expedited review on July 23, 2001. The request included reasons why the proposed Project met the criteria for expedited review.

On August 6, 2001 the Office determined on a preliminary and nonbinding basis that the Summit Project appeared to meet the criteria for expedited review. This determination is subject to change if new evidence shows that the proposed facility does not qualify for expedited review.

To issue the site certificate under the expedited review process, the Council must determine that the facility complies with the requirements for expedited review. ORS 469.373(6)(a). To determine that the facility complies with these requirements, the Council must find that the energy facility:

“(a) *Is a combustion turbine energy facility fueled by natural gas or is a reciprocating engine fueled by natural gas, including an energy facility that uses petroleum distillate fuels for backup power generation;*”

The Summit Project is proposed as a combustion turbine energy facility fueled by natural gas.

“(b) *Is a permitted or conditional use allowed under an applicable local acknowledged comprehensive plan, land use regulation or federal land use plan, and is located:*

“(A) *At or adjacent to an existing energy facility; or*

“(B) (i) *At, adjacent to or in close proximity to an existing industrial use; and*

(ii) *In an area currently zoned or designated for industrial use;*”

1 As discussed in detail in Attachment E of this Order, the energy facility site is located on land
2 zoned RIPD under the Columbia County Comprehensive Land Use Plan. The facility is
3 permitted as a conditional use in this zone, as shown in Attachment E of this Order. The facility
4 site is in close proximity (3,500 feet) to the existing Beaver Power Plant. The Summit Project
5 and the existing Beaver Power Plant are located within the Port Westward Industrial Area, which
6 Columbia County has designated for industrial use in its comprehensive plan (*see* “Port
7 Westward Exception Statement,” Columbia County Comprehensive Plan at 147).

- 8
9 “(c) (A) *Requires no more than three miles of associated transmission*
10 *lines or three miles of new natural gas pipelines outside of existing rights*
11 *of way for transmission lines or natural gas pipelines; or*
12 *“(B) Imposes, in the determination of the Energy Facility Siting*
13 *Council, no significant impact in the locating of associated transmission*
14 *lines or new natural gas pipelines outside of existing rights of way;”*
15

16 The Summit project would require approximately 10 miles of transmission line between the
17 energy facility and the BPA Allston Substation operated by BPA. Summit/Westward will
18 contract with PGE Transmission Group (“PGE/T”) to build the transmission line and provide
19 transmission services. The transmission line is fully described in PGE’s application for site
20 certificate for the PWGP. The 10-mile transmission line between the energy facility and the BPA
21 Allston Substation would be constructed entirely in the right-of-way for PGE/T’s existing
22 Beaver-Allston transmission line. Approximately 1,000 feet of transmission line is proposed to
23 connect the Summit Project to the PGE/T transmission line. Therefore, the energy facility
24 requires less than three miles of transmission line outside existing transmission line right-of-way.
25

26 The facility would also require approximately 5,100 feet of natural gas pipeline connecting the
27 energy facility to the existing K-B Pipeline. Therefore, the Summit Project would require less
28 than three miles of gas pipeline, and, in fact, the gas pipeline and transmission line outside
29 existing right-of-way, taken together, total less than three miles.
30

- 31 “(d) *Requires no new water right or water right transfer;”*
32

33 The Summit Project would receive water from the Port, which has approval from the OWRD to
34 develop up to 30 cfs under existing permit #53677. The Port will develop a new diversion point
35 utilizing a system of shallow wells in the saturated zone beneath the Columbia River, known as a
36 Ranney collection system. As shown in Section D.2 of this Order, OWRD has provided written
37 comments to OOE showing a reasonable likelihood that OWRD will approve the new diversion
38 point. No new water right or water right transfer would be required.
39

- 40 “(e) *Provides funds to a qualified organization in an amount determined by the*
41 *Council to be sufficient to produce any required reduction in carbon*
42 *dioxide emissions as specified in ORS 469.503(2)(c)(C) and in rules*
43 *adopted under ORS 469.503 for the total carbon dioxide emissions*
44 *produced by the energy facility for the life of the energy facility;”*
45

1 In Section D.9 of this Order, the Office has recommended a finding that Summit/Westward will
2 comply with the Council’s carbon dioxide standard by providing funds to a qualified
3 organization, in accordance with terms and conditions specified by the Council pursuant to OAR
4 345-024-0550.

5
6 “(f) (C) *Obtains a National Pollutant Discharge Elimination System or*
7 *water pollution control facility permit for process wastewater disposal,*
8 *supplies evidence to support a finding that the discharge can likely be*
9 *permitted within the expedited review process time frame and that the*
10 *discharge will not require:*

11 “(i) *A new National Pollutant Discharge Elimination System*
12 *permit, except for a stormwater general permit for*
13 *construction activities; or*

14 “(ii) *A change in any effluent limit or discharge location under*
15 *an existing National Pollutant Discharge Elimination*
16 *System or water pollution control facility permit.”*
17

18 Criterion (f) of ORS 469.373(1) contains three subcriteria, of which the applicant need meet only
19 one. In its original July 2001 ASC, Summit/Westward proposed to discharge process wastewater
20 to the Port , which would accept the waste and discharge it under an NPDES permit to be
21 obtained by the Port. However, on November 30, 2001, Summit/Westward amended its
22 application to include a zero-liquid discharge facility. This facility would utilize a brine
23 crystallizer to process liquid effluent and to concentrate dissolved solids into a solid waste that
24 Summit/Westward would then ship by truck to an approved landfill. No NPDES permit would be
25 required, because there is no process water discharge. The zero-liquid-discharge facility would
26 require holding ponds to collect wastewater during periods when the brine crystallizer is
27 inoperable. However, the water collected would be processed and reused once the brine
28 crystallizer was returned to operable status. The holding ponds require a WPCF permit, and the
29 Office recommends a finding that the facility meets the WPCF permitting requirements as shown
30 in Sections F.1.d and F.1.e of this Order. The facility would also require a 1200-C storm water
31 discharge permit, which is a federally delegated permit and which Summit/Westward has applied
32 for.
33

34 **Conclusion**

35 Based on the above determinations, the Council finds that Summit/Westward meets the criteria
36 for expedited review set forth at ORS 469.373(1)(a) through (f).
37

38 **G. CONDITIONS REQUIRED OR RECOMMENDED BY COUNCIL RULES**

39 The following conditions proposed for inclusion in the site certificate are specifically required or
40 recommended by OAR chapter 345, divisions 24, 26, and 27 to address project and site-specific
41 conditions and requirements. These conditions shall apply and should be read together with the
42 additional specific conditions recommended in Sections D and E of this Order to ensure
43 compliance with the siting standards of OAR chapter 345, divisions 22, 23, and 24 and to protect
44 the public health and safety.
45

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

7
8 The Council recognizes that many specific tasks related to the design, construction, operation,
9 and retirement of the facility will be undertaken by the site certificate holder's agents or
10 contractors. However, the site certificate holder shall be responsible for compliance with all
11 provisions of the site certificate.

12 13 **G.1. MANDATORY CONDITIONS IN SITE CERTIFICATES**

14 OAR 345-027-0020 details mandatory conditions that the Council must impose in every site
15 certificate. This Order imposes several of the mandatory conditions within the discussion of
16 specific conditions to which they relate. However, some mandatory conditions are not otherwise
17 addressed in this Order. Therefore, the Council adopts the following conditions in the site
18 certificate:

- 19
20 (1) **The Council shall not change the conditions of the site certificate except in**
21 **accordance with the applicable provisions of OAR chapter 345, division 27,**
22 **in effect on the date of the Council action.**
- 23
24 (2) **Before beginning construction of the facility, the certificate holder shall**
25 **submit to the Office a legal description of the site, except as provided in OAR**
26 **345-027-0023(6). The Office shall append the legal description to the site**
27 **certificate.**
- 28
29 (3) **The certificate holder shall design, construct, operate, and retire the facility:**
 - 30
31 (a) **Substantially as described in the site certificate;**
 - 32
33 (b) **In compliance with the requirements of ORS chapter 469, applicable**
34 **Council rules, and applicable state and local laws, rules, and**
35 **ordinances in effect at the time the Council issues the site certificate;**
36 **and**
 - 37
38 (c) **In compliance with all applicable permit requirements of other state**
39 **agencies.**
- 40
41 (4) **The certificate holder shall begin construction of the facility by October 3,**
42 **2004. The certificate holder shall report promptly to the Office the date that**
43 **it began construction of the facility, as defined in OAR 345-001-0010(10). In**
44 **reporting the beginning of construction, the certificate holder shall describe**
45 **all work on the site performed before beginning construction, including work**

1 performed before the Council issued the site certificate, and shall state the
2 cost of that work, pursuant to OAR 345-026-0048.

3
4 (5) The certificate holder shall complete construction of the facility by April 3,
5 2007. The completion of construction date is the day by which (1) the facility
6 is substantially complete as defined by the certificate holder's construction
7 contract documents; (2) acceptance testing is satisfactorily completed; and,
8 (3) the energy facility is ready to commence continuous operation consistent
9 with the Site Certificate. The certificate holder shall report promptly to the
10 Office the date it completed construction of the facility.

11
12 (6) Except as necessary for the initial survey or as otherwise allowed for
13 transmission lines or pipelines in this condition, the certificate holder shall
14 not begin construction, as defined in OAR 345-001-0010(10), or create a
15 clearing on any part of the site until the certificate holder has construction
16 rights on all parts of the site. For the purpose of this condition, "construction
17 rights" means the legal right to engage in construction activities. For
18 transmission lines or pipelines, if the certificate holder does not have
19 construction rights on all parts of the site, the certificate holder may
20 nevertheless begin construction or create a clearing on a part of the site if:

21
22 (a) The certificate holder has construction rights on that part of the site;
23 and

24
25 (b) The certificate holder would construct and operate part of the facility
26 on that part of the site even if a change in the planned route of the
27 transmission line or pipeline occurs during the certificate holder's
28 negotiations to acquire construction rights on another part of the site.

29
30 **G.2. OTHER CONDITIONS BY RULE**

31 This section contains recommended conditions based on the Council's rules. In some cases, the
32 rules propose conditions; in other cases the Council adopts conditions, based on the Council's
33 rules, to make explicit certain obligations of the certificate holder.

34
35 **Incident Reports.** Pursuant to OAR 345-027-0023(2), the Council adopts the following
36 condition in the site certificate:

37
38 (1) With respect to the related or supporting natural gas pipeline, the certificate
39 holder shall submit to the Office copies of all incident reports required under
40 49 CFR § 192.709 that involve the pipeline.

41
42 **Rights-of-Way.** Pursuant to OAR 345-027-0023(6), the Council adopts the following condition
43 in the site certificate:

- 1 **(2) Before beginning operation of the facility, the certificate holder shall submit**
2 **to the Office a legal description of the permanent right-of-way where the**
3 **applicant has built a pipeline or transmission line within an approved**
4 **corridor. The Office shall append the legal description to the site certificate.**
5 **The site of the pipeline or transmission line subject to the site certificate is**
6 **the area within the permanent right-of-way.**
7

8 **Monitoring Programs.** Pursuant to OAR 345-027-0028, the Council adopts the following
9 condition in the site certificate:

- 10
11 **(3) If the certificate holder becomes aware of a significant environmental change**
12 **or impact attributable to the facility, the certificate holder shall, as soon as**
13 **possible, submit a written report to the Office, describing the impact of the**
14 **facility and its ability to comply with any affected site certificate conditions.**
15

16 **Compliance Plans.** Pursuant to OAR 345-026-0048, the Council adopts the following condition
17 in the site certificate:

- 18
19 **(4) Before beginning construction of the facility, the certificate holder shall**
20 **implement a plan that verifies compliance with all site certificate terms and**
21 **conditions and applicable statutes and rules, including reporting and**
22 **notification requirements of OAR 345-026-0080 through -0170. The**
23 **certificate holder shall submit a copy of the plan to the Office. The certificate**
24 **holder shall document the compliance plan and maintain it for inspection by**
25 **the Office or the Council.**
26

27 **Reporting.** Pursuant to OAR 345-026-0080, the Council adopts the following conditions in the
28 site certificate:

- 29
30 **(5) Within six months after beginning any construction, and every six months**
31 **thereafter during construction of the energy facility and related or**
32 **supporting facilities, the certificate holder shall submit a semi-annual**
33 **construction progress report to the Council. In each construction progress**
34 **report, the certificate holder shall describe any significant changes to major**
35 **milestones for construction. When the reporting date coincides, the**
36 **certificate holder may include the construction progress report within the**
37 **annual report described in Condition (6).**
38
39 **(6) The certificate holder shall, within 120 days after the end of each calendar**
40 **year after beginning construction, submit an annual report to the Council**
41 **that addresses the subjects listed in OAR 345-026-0080(2). The Council**
42 **secretary and the certificate holder may, by mutual agreement, change the**
43 **reporting date.**
44

- 1 **(7) To the extent that information required by OAR 345-026-0080(2) is**
2 **contained in reports the certificate holder submits to other state, federal or**
3 **local agencies, the certificate holder may submit excerpts from such other**
4 **reports. The Council reserves the right to request full copies of such**
5 **excerpted reports.**

6
7 **Schedule Modification.** Pursuant to OAR 345-026-0100, the Council adopts the following
8 condition in the site certificate:

- 9
10 **(8) The certificate holder shall promptly notify the Office of any changes in**
11 **major milestones for construction, decommissioning, operation, or**
12 **retirement schedules. Major milestones are those identified by the certificate**
13 **holder in its construction, retirement or decommissioning plans.**

14
15 **Correspondence with Other State or Federal Agencies.** Pursuant to OAR 345-026-0105, the
16 Council adopts the following condition in the site certificate:

- 17
18 **(9) The certificate holder and the Office shall exchange copies of all**
19 **correspondence or summaries of correspondence related to compliance with**
20 **statutes, rules and local ordinances on which the Council determined**
21 **compliance, except for material withheld from public disclosure under state**
22 **or federal law or under Council rules. The certificate holder may submit**
23 **abstracts of reports in place of full reports; however, the certificate holder**
24 **shall provide full copies of abstracted reports and any summarized**
25 **correspondence at the request of the Office.**

26
27 **Notification of Incidents.** Pursuant to OAR 345-026-0170, the Council adopts the following
28 condition in the site certificate:

- 29
30 **(10) The certificate holder shall notify the Office within 72 hours of any**
31 **occurrence involving the facility if:**
32
33 **(a) There is an attempt by anyone to interfere with its safe operation;**
34
35 **(b) A natural event such as an earthquake, flood, tsunami or tornado, or**
36 **a human-caused event such as a fire or explosion affects or threatens**
37 **to affect the public health and safety or the environment; or,**
38
39 **(c) There is any fatal injury at the facility.**

40
41 **H. GENERAL CONDITIONS**

42 The following general conditions are based on the representations by Summit/Westward in the
43 ASC that are not otherwise addressed or that relate to procedural matters not otherwise addressed
44 in proposed conditions. The Council adopts the following conditions in the site certificate:
45

1 **(1) The general arrangement of the Summit/Westward Project shall be**
2 **substantially as shown in the ASC.**

3
4 **(2) The certificate holder shall ensure that related and supporting facilities are**
5 **constructed in the corridors described in this Order and as shown in the ASC**
6 **and in the manner described in this Order and the ASC.**
7

8 **Successors and Assigns.** Ownership of the site certificate or energy facility may change over
9 time. The Council adopts the following condition in the site certificate:

10
11 **(3) To transfer this site certificate, or any portion thereof, or to assign or dispose**
12 **of the facility in any other manner, directly or indirectly, the certificate**
13 **holder shall comply with OAR 345-027-0100.**
14

15 **Severability and Construction.** The Council adopts the following condition in the site
16 certificate:

17
18 **(4) If any provision of this agreement and certificate is declared by a court to be**
19 **illegal or in conflict with any law, the validity of the remaining terms and**
20 **conditions shall not be affected, and the rights and obligations of the parties**
21 **shall be construed and enforced as if the agreement and certificate did not**
22 **contain the particular provision held to be invalid. In the event of a conflict**
23 **between the conditions contained in the site certificate and the Council's**
24 **Order, the conditions contained in this site certificate shall control.**
25

26 **Governing Law and Forum.** The Council adopts the following conditions in the site certificate:
27 .

28 **(5) This site certificate shall be governed by the laws of the state of Oregon.**

29
30 **(6) Any litigation or arbitration arising out of this agreement shall be conducted**
31 **in an appropriate forum in Oregon.**
32

33 **I. GENERAL CONCLUSION**

34 The Council makes the following findings:
35

- 36 1. That the energy facility qualifies for expedited review pursuant to ORS 469.373.
- 37 2. That the facility complies with the standards adopted by the Council pursuant to
38 ORS 469.501(1)(a), (c) to (e), (g), (h), and (l) to (o);
- 39 3. That the energy facility is a base load gas plant that complies with the applicable
40 carbon dioxide emissions standard, OAR 345-024-0550;
- 41 4. That except for those statutes and rules for which the decision on compliance has
42 been delegated by the federal government to a state agency other than the
43 Council, the facility complies with all other Oregon statutes and administrative
44 rules identified in the Project Order, as amended, as applicable to the issuance of a
45 site certificate for the proposed facility adopted by the Council or enacted by
46 statute; and

1 5. That the facility complies with the Statewide Planning Goals adopted by the
2 LCDC, pursuant to ORS 469.503(4).
3

4 The Council concludes that Summit/Westward meets these requirements and that the Council
5 should issue a site certificate for the Summit Project.
6

7 **J. FINAL ORDER**

8 Based on the above findings of fact, discussions, and conclusions of law, the Council determines
9 that it shall approve the application for a site certificate for the Summit Project and that the
10 chairperson of the Council shall execute the site certificate in the form of the "Site Certificate for
11 the Summit/Westward Project," including Attachment A. The Proposed Site Certificate for the
12 Summit/Westward Project is attached to this Order and incorporated by reference into this Order.
13

14 Issued on October 3, 2002.
15

16
17 By: _____
18 Dr. Roslyn Elms-Sutherland
19 Chair
20 Oregon Energy Facility Siting Council
21

22 ATTACHMENT A: MEMORANDUM OF UNDERSTANDING - MONETARY PATH PAYMENT REQUIREMENT
23 ATTACHMENT B: DEQ WPCF PERMIT FOR SANITARY WASTE
24 ATTACHMENT C: DEQ WPCF PERMIT FOR TEMPORARY PROCESS WATER DISPOSAL
25 ATTACHMENT D: DRAFT REMOVAL-FILL PERMIT
26 ATTACHMENT E: LAND USE STANDARD ANALYSIS

1 **Notice of the Right to Appeal**

2

3 You have the right to appeal this order to the Oregon Supreme Court pursuant to

4 ORS 469.403. To appeal you must file a petition for judicial review with the Supreme Court

5 within 60 days from the day this order was served on you. If this order was personally delivered

6 to you, the date of service is the date you received this order. If this order was mailed to you, the

7 date of service is the date it was mailed, not the day you received it. If you do not file a petition

8 for judicial review within the 60-day time period, you lose your right to appeal.