BEFORE THE
ENERGY FACILITY SITING COUNCIL
OF THE STATE OF OREGON

IN THE MATTER OF THE APPLICATION	)	
FOR A SITE CERTIFICATE FOR THE	)	FINAL ORDER
COLUMBIA ETHANOL PROJECT	)	

Issued by

Oregon Energy Facility Siting Council
625 Marion Street NE
Salem Oregon 97301-3742

July 2, 2007

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TABLE OF ACRONYMS AND ABBREVIATIONS

Applicant	Pacific Ethanol Columbia, LLC
ASC	Application for Site Certificate
BLM	Bureau of Land Management
Btu	British thermal units
CEP	Columbia Ethanol Project
cfs	cubic feet per second
Council	Energy Facility Siting Council
DOGAMI	Oregon Department of Geology and Mineral Industries
DSL	Oregon Department of State Lands
EFSC	Energy Facility Siting Council
EPC	Engineering, Procurement and Construction
gpd	gallons per day
gpm	gallons per minute
KW	kilowatt
kwh	kilowatt hour
kV	kilovolt
LCDC	Land Conservation and Development Commission
MW	megawatt
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
OAR	Oregon Administrative Rules
ODA	Oregon Department of Agriculture
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy (or the "Department")
OPUC	Oregon Public Utility Commission
ORS	Oregon Revised Statutes
PEC	Pacific Ethanol Columbia, LLC
RAI	Request for Additional Information
SHPO	State Historic Preservation Officer
USDOT	U. S. Department of Transportation
USFWS	U. S. Fish and Wildlife Service
USFS	U. S. Forest Service
WPCF	Water Pollution Control Facilities
WRD	Oregon Water Resources Department

FINAL ORDER
COLUMBIA ETHANOL PROJECT

I. INTRODUCTION

The Energy Facility Siting Council (Council) issues this final order pursuant to Oregon Revised Statutes ("ORS") 469.370. This final order addresses the Application for a Site Certificate ("ASC" or the "application") for the construction of an ethanol plant capable of producing 35 million gallons per year of ethanol. The facility would be known as the Columbia Ethanol Project (the "CEP" or the "facility") and would be located on leased land within the Port of Morrow's Boardman Industrial Park, Morrow County, Oregon.

Pacific Ethanol Columbia, LLC ("PEC" or "applicant"), a subsidiary of Pacific Ethanol, Inc., submitted the application on October 2, 2006.

The Council bases this final 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.

The CEP is unusual in that construction began in May of 2006, over four months before the application for site certificate was submitted. The applicant began construction under an exemption from site certificate requirements created by ORS 469.300(11)(a)(G). The exemption is subject to the premise that no more than 10% of the facility output will be shipped by truck. Pacific Ethanol obtained the exemption based on this premise, but now requests a site certificate to allow product shipment by any means.

With certain exceptions, no plant which converts biomass to a gas, liquid or solid product, or combination of such products, intended to be used as a fuel and if any one of such products is capable of being burned to produce the equivalent of six billion Btu of heat a day, may be constructed or operated in Oregon without first obtaining a site certificate from the Oregon Energy Facility Siting Council ("EFSC" or the "Council"). ORS 469.300(11)(a)(G) and ORS 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 as to the approval of the site and the construction and operation of the facility. Once the Council issues the site certificate, the responsible state agency or local

government must issue any necessary permits that are addressed in the site certificate without further proceedings upon payment of appropriate fees by the certificate holder. ORS 469.401(3).

ODOE reviewed the application and the comments of reviewing agencies and affected local governments and tribes identified in accordance with Oregon Administrative Rules ("OAR") 345-021-0050. It also reviewed public comments. Based upon the discussion and conclusions contained in this final order, the Council grants the site certificate for CEP, subject to the conditions stated in this final order.

The definitions in ORS 469.300 and OAR 345-001-0010 apply to terms used in this final order. The following terms, paraphrased from the rule, are used frequently throughout this final order:

- "Energy facility" means the ethanol plant. The term "energy facility" does not include any related or supporting facility. If a reference is intended to apply to both the energy facility and its related or supporting facilities, the term "facility" is used.

- "Energy facility site" means all land upon which an energy facility is located or proposed to be located.

- "Facility" means an energy facility, together with any related or supporting facilities.

- "Related or supporting facility" means any structure to be built in connection with the energy facility, including but not limited to pipeline valves, regulators, compressors, vaults, enclosures, switching stations, substations, associated equipment, associated transmission lines, reservoirs, intake structures, road and rail access, pipelines, barge basins, office or public buildings, construction laydown, staging and parking areas, and commercial and industrial structures or other structures proposed by the applicant to be constructed or substantially modified in connection with the construction or operation of the energy facility. "Related or supporting facility" does not include any structure existing prior to construction of the energy facility, unless such structure must be significantly modified solely to serve the energy facility.

- "Related or supporting facilities site" means all land upon which related or supporting facilities for an energy facility are located or proposed to be located, including any linear rights-of-way.

- "Site" means all land upon which a facility is located or proposed to be located.

II. PROCEDURAL HISTORY

On March 3, 2006, Pacific Ethanol, Inc. ("PEI"), submitted to ODOE a Notice of Intent ("NOI") to apply to build an ethanol production facility to be called the Pacific Ethanol Facility at the Boardman Industrial Park, Morrow County, Oregon.

On March 6, 2006, ODOE prepared the memorandum described in OAR 345-015-0120 and directed PEI to distribute it, together with a copy of the NOI, to the officers, agencies and tribes described in OAR 345-020-0040. ODOE requested comments from agencies, tribes and local governments by April 7, 2006. ODOE received comments from the Morrow County Planning Department, the Department of Geology and Mineral Industries ("DOGAMI"), the Oregon Department of Fish and Wildlife ("ODFW"), and the State Historic Preservation Office ("SHPO"). All comments were provided to the applicant.

On March 6, 2006, ODOE mailed a public notice describing the proposed facility to the Council's general mailing list and requesting comments by April 7, 2006.

On March 20, 2006, ODOE held a public information meeting on the NOI at the Port of Morrow conference center. No person in attendance at that meeting raised any concerns about the Pacific Ethanol Facility. The only comment ODOE received during the public comment period on the NOI was a letter of support from the Port of Morrow. On April 28, 2006, ODOE issued the project order based on the NOI and the comments from the state and local agencies.

On April 19, 2006, PEI submitted an application for exemption from the requirement to obtain an energy facility site certificate for the proposed Pacific Ethanol Facility. In that application, PEI stated it would qualify for the exemption because it would satisfy the criteria for exemption outlined in ORS 469.300(11)(a)(G), including the requirement that at least 90% of the synthetic fuel would be used in an industrial or refueling facility located within one mile of the facility or would be transported from the facility by rail or barge.

On May 19, 2006, the Energy Facility Siting Council ("EFSC") approved PEI's exemption request, making note of the fact that if PEI wished to ship more than 10% of its ethanol product by truck, then the facility would no longer meet the exemption criteria and must first obtain an energy facility site certificate. PEI began construction of the facility during the last half of May 2006.

On October 2, 2006, Pacific Ethanol Columbia, LLC ("PEC"), a subsidiary of PEI, submitted to ODOE its application for a site certificate for the facility, now called the Columbia Ethanol Project ("CEP"). In that application, PEC described the facility as an ethanol plant that would produce 35 million gallons per year ("MMgy") of ethanol. Because contracts for the ethanol purchase had not been signed, it was possible that less than 90% of the ethanol would be shipped by rail or barge, in which case PEC would not qualify for the exemption approved by EFSC on May 19, 2006, and it would be necessary for PEC to obtain a site certificate for the facility. PEC stated that "[I]f a site certificate is not issued, Columbia Ethanol will either operate a sub-jurisdictional plant that produces up to 27 MMgy, or produce only as much ethanol as can be shipped by rail or barge, plus approximately 10%."

On receipt of the PEC application for site certificate, ODOE issued the letter described at OAR 345-015-0180. With this letter as a cover, ODOE distributed copies of the application to state agencies, local governments and tribes listed at OAR 345-020-0040. ODOE asked the agencies, tribes and local governments to comment on the application by November 15, 2006. Specifically, ODOE asked for comments on whether or not the application was complete, and what if any additional information was needed. ODOE received comments requesting additional information from the Department of Fish and Wildlife (ODFW), the State Historic Preservation Office (SHPO), and Morrow County.

On November 17, 2006, ODOE issued a Request for Additional Information (RAI) to PEC. ODOE directed PEC to respond to comments from ODFW and SHPO. ODOE also requested additional information on applicable standards, in particular the DEQ Noise standard and the EFSC Retirement and Financial Assurance Standard.

In response to the RAI, PEC submitted a supplement on January 15, 2007. The supplement included a biological assessment of the barge loading facility, a federal wetlands permit application submitted for the barge facility, archeological survey results, the wastewater discharge permit held by the City of Boardman, a detailed estimate of retirement cost, and a revised Figure C-2 showing the location of the proposed ethanol pipe. ODOE distributed the supplement to ODFW and SHPO, the agencies that had requested the additional information. PEC's January 15, 2007 supplement is considered part of the application for site certificate.

After reviewing the supplement, ODOE received further additional information requests from SHPO. The SHPO concerns were resolved based on further correspondence between SHPO and the applicant. That correspondence is considered part of the CEP application for purposes of filing. ODOE concerns regarding retirement cost were resolved in a revised cost estimate provided by PEC, also considered part of the complete application.

On February 26, 2007, ODOE determined that the application was complete and filed. ODOE issued the notice to state agencies, tribes and affected local governments described at OAR 345-015-0200. In the notice ODOE requested comments on compliance with applicable standards and permitting requirements by March 29, 2007.

One agency, DOGAMI, requested further information. PEC's geology consultant provided the requested information in a report dated March 16, 2007. DOGAMI commented that the GRI report was acceptable, but noted that the information in the application must match the report. The GRI report of March 16, 2007 is considered part of the completed application.

ODFW commented that it was working directly with the applicant on final habitat mitigation conditions. The Boardman Fire Dept. commented by telephone that it would like a common ethanol pipeline route to be shared by the different ethanol production facilities proposed for the Port of Morrow. No other agency, local government or tribe commented on the filed application.

On February 26, 2007, ODOE issued the public notice of filed application described at OAR 345-015-0190. ODOE mailed the notice to the Council's general mailing list, adjacent property owners, and interested persons, and placed public notice in the East Oregonian, the newspaper of general circulation in the Boardman area. ODOE requested comments from the public by March 29, 2007. No member of the public commented.

On April 16, 2007, ODOE issued a Draft Proposed Order recommending approval of the application for site certificate, subject to the conditions stated in this final order. ODOE mailed out notice on April 16, 2007 to persons on the Council's general mailing list and to the list of affected property owners for this project, as described in OAR 345-015-0220(2) and (3). ODOE also placed this notice in the East Oregonian newspaper. In the notice, ODOE announced a public hearing to be held at the Port of Morrow offices in Boardman, OR on May 9, 2007. The notice stated that May 9, 2007 was the deadline for public comments. The notice stated that any person who did not comment on the record of the hearing on the draft proposed order was precluded from participation in the contested case, and that any issue not raised on the record of the hearing on the draft proposed order was precluded from consideration in the contested case.

On May 9, 2007, the hearing on the Draft Proposed Order was held at the Port of Morrow in Boardman OR. Mr. John Burgess presided. Three individuals commented. One was Carla McClain, Morrow County Planning Director, who recommended that the Council approve the project. Two persons from United Steel Workers (USW), Richard Rodgers and Gavin Prescott, commented in person and in a letter dated May 9, 2007. In their comments, USW stated that the applicant did not meet the Organizational Expertise Standard because the same company was under investigation by the US Department of Labor for alleged Occupational Safety and Health violations at an ethanol production plant in Colorado, in which Pacific Ethanol holds a 42% interest. USW further questioned whether safety requirements would be met for the trucks that this project would cause to be on the road. Finally, USW asked that the Council withhold any decision on whether or not to issue a site certificate until the US Department of Labor has adjudicated the allegations in Colorado. USW noted that the US Department of Labor adjudication could take a long time, although they had no information or estimate as to how long that adjudication would take. Patrick Young, from USW's Pittsburgh Pennsylvania office also commented by email, sending the same May 9, 2007 letter as Mr. Rodgers and Mr. Prescott.

Regarding the comment on the safety of shipments by truck, the applicant has not claimed that it will supervise the trucking companies once trucks are on the road. Those trucks are subject to regulations of the Department of Transportation and are not Energy Facilities subject to EFSC jurisdiction. For this reason, ODOE did not recommend any findings or recommendations on this issue that are different from those in the Draft Proposed Order.

On May 10, 2007, the Council reviewed the Draft Proposed Order at a meeting in Boardman, as described at OAR 345-015-0230. The Council noted the testimony received at the May 9 hearing and received copies of the written testimony filed by USW.

On May 21, 2007 ODOE issued the Proposed Order required under OAR 345-015-0230(2). ODOE did not recommend findings or conclusions different from those in the Draft Proposed Order. ODOE did not recommend that the Council withhold a decision until the US

Department of Labor adjudication is complete. The Council is obliged to issue its decision within the statutory timelines of ORS 469. The statute does not state that the Council should suspend the siting process while waiting for the outcome of a federal agency investigation. Rather, the Council should make its decision based on the record of its own proceeding.

On May 21, 2007 ODOE issued the Notice of Contested Case on the proposed order, as described in OAR 345-015-0014. The notice stated that the Hearing Officer must receive all petitions for party status in the contested case by 5:00 p.m. Thursday June 7, 2007.

The Hearing Officer received no petitions for party status. Therefore, on June 12, 2007 the Hearing Officer issued an order closing the contested case. The Council held its final meeting to decide on the application for site certificate by conference call on July 2, 2007.

In reviewing the application, the Council considered the entire facility, not just the incremental impact of shipping more than 10% of product by truck. Therefore, the findings, conclusions and conditions included in this order apply to the entire facility, including the portion of the facility on which the applicant began construction prior to issuance of this order.

III. GENERAL FINDINGS

A DESCRIPTION OF THE FACILITY

1. The Energy Facility

The energy facility is an ethanol plant capable of producing 35 million gallons per year (MMgy) of ethanol located on a 25-acre parcel in the Boardman Industrial Park, Port of Morrow, Morrow County, Oregon. Major plant components consist of buildings, storage tanks and bins. By means of an existing rail loop, corn will be delivered to the site. In the processing building, ground corn will be mixed with water and enzymes to make a mash, and the mash will be cooked in a series of retention tanks to break the complex sugars down into fermentable sugars. The processing building will house steel storage tanks for aqueous ammonia, enzymes, sulfuric acid, sodium hydroxide, and urea.

In the fermentation building, yeast and additional enzymes will be added to the mash, producing a liquid containing 10 to 20% ethanol, by weight. The liquid will be piped to the distillation, drying and evaporation (DD&E) building where the solids (a by-product called distiller's wet grain that would be suitable for animal feed) will be separated and transported to a wet cake building for storage and ultimate trucking to local dairy or cattle operations for use as feed. The liquid ethanol will be moved to ethanol storage tanks pending shipment to market by barge, rail or truck.

Additional plant components include grain storage bins, an administration building, a boiler building, a maintenance building, ethanol storage tanks, a diesel fuel storage tank, and a gasoline tank.

The facility is currently under construction pursuant to an exemption granted by the Council on May 19, 2006. Consequently, this order does not include certain conditions ordinarily

requiring satisfaction by the certificate holder in advance of beginning construction of a proposed facility.

2. Related or Supporting Facilities

The facility includes the following related or supporting facilities:

NATURAL GAS PIPELINE

Natural gas for operation of the plant boilers will be provided by means of a 1,700-foot, 4-inch diameter carbon steel pipeline interconnecting with the existing Cascade Natural Gas system. The pipeline is installed underground along Columbia Lane on property owned by the Port of Morrow.

ELECTRIC POWER SUPPLY LINE

Electricity for operation of the energy facility will be provided by means of a 13.5-kV, 1,700-foot power supply line interconnecting with the existing Umatilla Electric Cooperative system. The power supply line is mounted on 40-foot wood poles spaced at about 300 feet and located along Columbia Lane on property owned by the Port of Morrow.

ETHANOL PIPELINE

PEC proposes to transport some of the ethanol produced at the energy facility by barge from an existing barge-loading facility operated by Tidewater, Inc. In order to move the ethanol to the barge-loading facility, PEC proposes to install a 2,500-foot, 8-inch diameter welded steel pipeline from the energy facility to the barge-loading facility. After leaving the production plant, the pipeline would be installed underground at a depth of at least 3½ feet until it crosses the right of way for the existing Union Pacific rail line. It will cross the rail line by underground bore. North of the rail line, the pipeline will be placed above ground on footings in order to avoid a potential archeological site. Its entire corridor is located on property owned by the Port of Morrow, and would require no new right-of-way. PEC would be responsible for construction of about 2,200 feet of the pipeline (up to the high water line of the Columbia River). Tidewater, Inc., would be responsible for obtaining necessary permits and constructing the remaining 300 feet of the pipeline for connection with the barge-loading facility.

B. LOCATION OF THE FACILITY

1. The Energy Facility Site

The energy facility is located on a 25-acre parcel of land in Section 2, Township 4 North, Range 25 East, Morrow County, Oregon. This parcel comprises a portion of the Boardman Industrial Park owned and operated by the Port of Morrow.

2. Related or Supporting Facility Sites

Natural Gas Pipeline Corridor. The natural gas pipeline is 4 inches in diameter and connects the energy facility to the existing Cascade Natural Gas system about 1,700 feet from the energy facility. The natural gas pipeline is installed along Columbia Lane on property owned by the Port of Morrow in Sections 2 and 11, Township 4 North, Range 25 East, Morrow County, Oregon.

Electric Power Supply Line Corridor. The electric power supply line is mounted on 40-foot wood poles and connects the energy facility to the existing Umatilla Electric Cooperative system about 1,700 feet from the energy facility. The electric power supply line is installed along Columbia Lane on property owned by the Port of Morrow in Sections 2 and 11, Township 4 North, Range 25 East, Morrow County, Oregon.

Ethanol Pipeline Corridor. The ethanol pipeline will be 8 inches in diameter and will connect the energy facility to an existing barge-loading facility on the Columbia River about 2,500 feet from the energy facility. The barge-loading facility is operated by Tidewater, Inc. PEC will be responsible for installing the ethanol pipeline from the energy facility to a point about 2,200 feet from the energy facility, and Tidewater, Inc., will be responsible for installing the remaining 300 feet to the point of interconnection with the barge-loading facility. The 2,200-foot length of ethanol pipeline to be installed by PEC will be installed on property owned by the Port of Morrow in Section 2, Township 4 North, Range 25 East, Morrow County, Oregon.

IV. COUNCIL FACILITY SITING STANDARDS: DISCUSSION & CONCLUSIONS

A. INTRODUCTION: GENERAL STANDARD OF REVIEW, OAR 345-022-0000

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

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

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

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(4) In making determinations regarding compliance with statutes, rules and ordinances normally administered by other agencies or compliance with requirements of the Council statutes if other agencies have special

expertise, the [Department] of Energy shall consult with such other agencies during the notice of intent, site certificate application and site certificate amendment processes. Nothing in these rules is intended to interfere with the state's implementation of programs delegated to it by the federal government.

Section (1)(a) of this standard requires compliance with the EFSC Standards of Oregon Administrative Rule OAR Chapter 345 Division 22. Findings regarding compliance with these standards are found in sections IV.B through IV.O of this order.

Section (1)(b) of this standard requires compliance with rules and statutes of other agencies as identified in the Project Order. The Project Order identifies water rights issued by the Water Resources Department and the water pollution control facilities (WPCF) permits issued by Department of Environmental Quality as permits under EFSC jurisdiction. For the CEP, Pacific Ethanol will rely on the Port of Morrow to provide waster and wastewater discharge service. These permits are therefore considered third party permits and are addressed in discussion of the Council's Organizational Expertise Standard. Other rules and statues of other agencies identified in the Project Order are discussed in specific sections of this order related to EFSC standards, found in sections IV.B though IV.O of this order.

Sections (2) and (3) of the standard (omitted for brevity) address "balancing", where the Council may issue a site certificate for a facility that does not meet one or more of its standards. Pacific Ethanol does not request a balancing analysis and proposes to meet all applicable standards outright. These sections are therefore not applicable.

Section (4) requires the Department to consult with other agencies that have special expertise. All findings of compliance in this order were made after consultation with the agencies, tribes and affected local governments listed at OAR 345-020-0040.

B. ORGANIZATIONAL EXPERTISE, OAR 345-022-0010

This standard has four paragraphs. Two paragraphs, OAR 345-022-0010(1) and OAR 345-022-0010(2), relate to the applicant's qualification and capability. The other two paragraphs, OAR 345-22-0010(3) and OAR 345-022-0010(4), relate to third party permits.

1. Applicant Qualification and Capability, OAR 345-022-0010(1)

To issue a site certificate, the Council must find that the applicant has the organizational expertise to construct, operate and retire the proposed facility in compliance with Council standards and conditions of the site certificate. To conclude that the applicant has this expertise, the Council must find that the applicant has demonstrated the ability to design, construct and operate the proposed facility in compliance with site certificate conditions and in a manner that protects public health and safety and has demonstrated the ability to restore the site to a useful, non-hazardous condition. The Council may consider the applicant's experience, the applicant's access to technical expertise and the applicant's past performance in constructing, operating and retiring other

facilities, including, but not limited to, the number and severity of regulatory citations issued to the applicant.

Discussion

PEC is a subsidiary of Pacific Ethanol, Inc. ("PEI"). PEI is the developer of two existing ethanol production plants: a 35-MMgy ethanol plant in Madera, California, and the 40-MMgy Front Range Energy ethanol project in Windsor, Colorado. PEI would provide the organizational experience and expertise to construct and operate the energy facility.

Project participants from PEI have over 10 years of experience in construction, operations and marketing, largely associated with ethanol plants.

PEI has not received regulatory citations or stop work orders in connection with the construction or operation of the Madera, California, or Windsor, Colorado, ethanol plants.

Delta-T is the project engineer for construction of the facility. Delta-T was established in 1984, and its technologies for drying and purifying industrial-grade alcohol are operating at 50 installations worldwide.

To find that PEC complies with OAR 345-022-0010(1), the Council adopts the following standard conditions in the site certificate:

(IV.B.1) **The certificate holder shall report promptly to the Department any change in its corporate relationship with Pacific Ethanol, Inc. The certificate holder shall report promptly to the Department any change in its access to the resources, expertise and personnel of Pacific Ethanol, Inc., and Delta-T.**

(IV.B.2) **If the certificate holder chooses a third-party contractor to operate the facility, the certificate holder shall submit to the Council the identity of the contractor so the Council may review the qualifications and capability of the contractor to meet the standards of OAR 345-0022-0010. If the Council finds that a new contractor meets these standards, the Council shall not require an amendment to the site certificate for the certificate holder to hire the contractor.**

(IV.B.3) **Any matter of non-compliance under the site certificate shall be the responsibility of the certificate holder. Any notice of violation issued under the site certificate shall be issued to the certificate holder. Any civil penalties assessed under the site certificate shall be levied on the certificate holder.**

(IV.B.4) **The certificate holder shall contractually require the EPC contractor and all independent contractors and subcontractors involved in the construction and operation of the facility to comply with all applicable laws and regulations and with the terms and conditions of the site**

certificate. Such contractual provision shall not operate to relieve the certificate holder of responsibility under the site certificate.

(IV.B.5) The certificate holder shall obtain, or shall ensure that its contractors obtain, necessary state and local permits or approvals required for the construction, operation and retirement of the facility.

The Council finds that, subject to the conditions stated in this final order, PEC has demonstrated the ability to design, construct and operate the facility in compliance with site certificate conditions and in a manner that protects public health and safety and that PEC has demonstrated the ability to restore the site to a useful, non-hazardous condition.

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

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

Discussion

PEC did not submit evidence of ISO certification and has not requested a rebuttable presumption of expertise pursuant to OAR 345-22-0010(2).

3. Third-Party Services and Permits: Contracts, OAR 345-022-0010(3)

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

Discussion

PEC intends to rely on Tidewater, Inc., to obtain all required authorizations for construction of the ethanol pipeline from the Ordinary High Water (OHW) line of the Columbia River to the point of its attachment to the barge-loading facility, including the Rivers and Harbors Act, Section 10, permit from the Corps of Engineers. In its application, PEC included a copy of Tidewater's Joint Permit Application Form. PEC has also provided evidence that it has entered into a contract with Tidewater, Inc., to make use of the barge-loading facility for ethanol transportation.

PEC will purchase water for facility operations from the Port of Morrow under its existing water right. The Port has provided a list of its current tenants and their water requirements, demonstrating that there is enough water available to meet the needs of Pacific Ethanol and other industrial tenants at the Port.

PEC will discharge wastewater to the City of Boardman, using the existing Water Pollution Control Facilities (WPCF) permit held by the Port of Morrow. A copy of the WPCF permit is included in the Application as Attachment E to PEC's January 15, 2007 RAI response. The Port of Morrow has applied to DEQ to modify its WPCF permit to include the output from CEP.[1]

4. Third-Party Services and Permits: Conditions, OAR 345-022-0010(4)

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

Discussion

PEC intends to rely on Tidewater, Inc., to obtain all required authorizations for construction of the ethanol pipeline from the Ordinary High Water (OHW) line of the Columbia River to the point of its attachment to the barge-loading facility, including the Rivers and Harbors Act, Section 10, permit from the Corps of Engineers. In its application, PEC included a copy of Tidewater's Joint Permit Application Form and provided evidence that it has a contract or other agreement with Tidewater, Inc., to make use of the barge-loading facility for ethanol transportation.

To find that PEC complies with OAR 345-022-0010(4), the Council adopts the following conditions in the site certificate:

(IV.B.6) **Prior to construction of the PEC portion of the ethanol pipeline that will connect CEP to the Tidewater ethanol pipeline, the certificate holder shall demonstrate to the Energy Facility Siting Council ("Council") that Tidewater, Inc., has obtained all necessary permits and approvals for construction of the ethanol pipeline from the Ordinary High Water ("OHW") line of the Columbia River to its point of attachment with the barge-loading facility.**

(IV.B.7) **Prior to commercial operation, the certificate holder shall provide the Council with documentation showing that DEQ has modified the Port of Morrow's WPCF permit to include the wastewater discharge from the CEP.**

Conclusion

The Council finds that, subject to the conditions stated in this final order, PEC meets the organizational expertise standard, OAR 345-022-0010.

[1] Email 3/28/2007 from Gary Neal, Port of Morrow, to Dana Siegfried, DEA Associates.

C. RETIREMENT AND FINANCIAL ASSURANCE, OAR 345-022-0050

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

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

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

Discussion

This section addresses the requirement for restoration of the site to a useful, non-hazardous condition following permanent cessation of construction or operation of the facility, the amount of financial assurance the Council should require, and PEC's ability to offer such financial assurance.

Retirement. For the purposes of the retirement and financial assurance standard, a "useful, non-hazardous condition" is a condition consistent with the applicable local comprehensive land use plan and land use regulations. The energy facility and all related or supporting facilities would be sited in an area currently zoned for industrial use.

The estimated useful life of the energy facility is 30 years. At the end of its useful life, PEC would retire the energy facility in accordance with the approved retirement plan and in compliance with all laws and regulations in effect at the time of retirement.

Site restoration would consist primarily of dismantling and removing structures and restoring the site to a condition suitable for industrial use. In its application, PEC provided evidence that the Port of Morrow has agreed that upon retirement of the facility the Port would allow PEC to leave any concrete at slab grade and would allow PEC to leave any utilities in place. Two years before the date on which PEC expects to permanently shut down the energy facility, it would develop and submit to the Council a site restoration plan for its approval.

To find that PEC complies with OAR 345-022-0050(1), the Council adopts the following standard conditions in the site certificate:

(IV.C.1) **The certificate holder shall retire the facility if the certificate holder permanently ceases construction or operation of the facility. The certificate holder shall retire the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110, and prepared pursuant to Condition (IV.C.2).**

(IV.C.2) **Two years before closure of the energy facility, the certificate holder shall submit to the Department a proposed final retirement plan for the facility and site, pursuant to OAR 345-027-0110, including:**

(a) A plan for retirement that provides for completion of retirement within two years after permanent cessation of

operation of the energy facility and that protects the public health and safety and the environment;

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

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

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

The Council finds that PEC has demonstrated it can adequately restore the site to a useful, non-hazardous condition following facility retirement.

Financial Assurance. PEC estimated the cost of demolition and site restoration at $168,000 to $252,000 and predicted that salvage and scrap values would fully offset that cost. ODOE recommended that the Council find that no salvage value should attach to an energy facility that would be retired 30 years in the future and, because there is no certainty the State would have an enforceable claim against the value of scrap. Therefore, the Council finds that no allowance should be made for the prospective value of scrap in calculating the applicable financial assurance amount.

ODOE obtained an independent cost estimate, based on the estimating procedure outlined in its draft "Facility Retirement Cost Estimating Guide." That estimate, prepared by reference to limited project design information included in the application, set the cost of removing buildings at $186,433, the cost of removing tanks and equipment at $206,799, and the total cost of demolition and site restoration at $515,380. By reference to detailed design drawings, PEC's consultant demonstrated that the cost of removing buildings would be $123,510 and the cost of removing tanks and equipment would be $177,261, setting the total cost of demolition and site restoration at $409,258 (in 2006 dollars). The Council finds that this estimate is within the range of accuracy for estimates of this type. The Council finds that the estimate should be adjusted by adding to this amount the customary 1-percent performance bond, 10-percent administration and project management costs, and 20-percent future developments contingency, as well as a $250,000 contingency to cover the prospective cost of hazardous materials assessments, testing and cleanup. The Council finds that the financial assurance amount applicable to CEP (in 2006 dollars) is $786,000, as shown in Table 1. The Council further finds that the initial financial assurance amount should be adjusted to Second Quarter 2007 dollars to coincide with the date of Council action on the CEP application. The 2006 GDP Deflator is 116.034625; the preliminary Second Quarter 2007 GDP Deflator is 118.1315. The adjusted initial financial assurance amount is derived by application of the following formula: $786,000 times (118.1315/116.034625). Therefore, the Council finds that the initial financial assurance amount applicable to CEP is $800,000 (in Second Quarter 2007 dollars rounded to the nearest $1,000).

Table 1
Cost of Facility Retirement and Site Restoration

Utility Disconnects		$3,435
Preliminary Work (Cut & Cap Lines)		$14,268
Removal of Buildings		$123,510
Removal of Tanks and Equipment		$177,261
General Costs (Permits, mobilization, engineering, overhead)		$90,784
Total Cost of Facility Retirement and Site Restoration		**$409,258**
Performance Bond	1%	$4,093
Administration and Project Management Costs	10%	$40,926
Future Developments Contingency	20%	$81,852
Hazardous Materials Assessments, Testing and Cleanup		$250,000
Total Financial Assurance Amount (2006 **$)**		**$786,129**
Total Financial Assurance Amount (rounded to nearest $1,000)		**$786,000**
Total Financial Assurance Amount (adjusted to second quarter 2007)		**$800,000**

If a plant is not well-operated, leaks, spills, and improper materials handling over a period of several years could contaminate soil, particularly if the spills had access to cracks in concrete or asphalt cover or did not occur over an impermeable surface. In the absence of an effective materials management and monitoring plan, careless practices could result in much higher site remediation costs. Accordingly, the Council adopts a condition that requires the certificate holder to conduct Phase I Environmental Site Assessments, in accordance with an industry-accepted standard, such as ASTM Standard E-1527, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, each 10 years. If any Environmental Site Assessment shows there will be higher remediation costs than can be covered by bond or letter of credit then in place, the Council requires the certificate holder to increase its bond or letter of credit to cover the higher costs.

PEC provided a letter from WestLB AG, dated April 10, 2007, wherein WestLB described, in general terms, the Credit Agreement between PEC and its affiliates (the "Borrowers") and numerous lenders and secured parties (the "Lenders"). WestLB described its role as administrative agent for the Lenders, collateral agent for the senior secured parties, and lead arranger and sole bookrunner. WestLB stated that the Credit Agreement provides that, subject to satisfaction of its terms and conditions, PEC may request that letters of credit be issued in connection with obligations of PEC under contracts to which it is party or in connection with permits or governmental approvals granted to PEC.

A bond or letter of credit is financial assurance to the State of Oregon that funds will be available to the State should it have to restore the site because of default by the certificate holder. It is a last resort; it is not the primary mechanism for restoring the site. It is the responsibility of the certificate holder to have funds or other financial resources available to it sufficient to restore the site.

To find that PEC complies with OAR 345-022-0050(2), the Council adopts the following conditions in the site certificate:

(IV.C.4) **Within 30 days after the effective date of the site certificate, the certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of credit in the amount of $800,000 (in Second Quarter 2007 dollars) naming the State of Oregon, acting by and through the Council, as beneficiary or payee.**

(a) The certificate holder shall adjust the amount of the bond or letter of credit to present value annually, using the U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight, as published in the Oregon Department of Administrative Services' "Oregon Economic and Revenue Forecast," or by any successor agency ("Index"). If at any time the Index is no longer published, the Council shall select a comparable calculation to adjust Second Quarter 2007 dollars to present value.

(b) The form of bond or letter of credit shall be subject to prior approval by the Council.

(c) The issuer of the bond or letter of credit shall be subject to prior approval by the Council.

(d) The certificate holder shall describe the status of the bond or letter of credit in the annual report submitted to the Council under Condition (VI.B.6).

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

(IV.C.5) **If the certificate holder elects to use a bond to meet the requirements of Condition (IV.C.4), the certificate holder shall ensure that the surety is obligated to comply with the requirements of applicable statutes, Council rules and this site certificate when the surety exercises any legal or contractual right it may have to assume construction, operation or retirement of the energy facility. The certificate holder shall also ensure that the surety is obligated to notify the Council that it is exercising such rights and to obtain any Council approvals required by applicable statutes, Council rules and this site certificate before the surety commences any activity to complete construction or to operate or retire the energy facility.**

(IV.C.6) **Not later than ten years after the date of commercial operation of the energy facility, and each ten 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. Within 30 days after its completion, the certificate holder shall deliver the Phase I Environmental Site Assessment report to the Department.**

(IV.C.7) **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 Department. The Council shall determine whether the corrective actions are sufficient.

(IV.C.8) **The certificate holder shall report to the Department any release of hazardous substances, pursuant to DEQ regulations, 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.**

(IV.C.9) **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 of the release or the date of completion of the Phase I Environmental Site Assessment, the certificate holder shall submit to the Council for its approval an independently prepared estimate of the additional cost of remediation or correction within such six-month period.**

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

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

(IV.C.10) **All funds received by the certificate holder from the salvage of equipment and buildings shall be committed to the restoration of the energy facility site to the extent necessary to fund the approved site restoration and remediation.**

(IV.C.11) **The certificate holder shall pay the actual cost to restore the site to a useful, non-hazardous condition at the time of retirement, notwithstanding the Council's approval in the site certificate of an estimated amount required to restore the site.**

(IV.C.12) **If the Council finds that the certificate holder has permanently ceased construction or operation of the facility without retiring the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110 and prepared pursuant to Condition (IV.C.2), the Council shall notify the certificate holder and request that the certificate holder submit a proposed final retirement plan to the Department within a reasonable time not to exceed 90 days.**

(a) If the certificate holder does not submit a proposed final retirement plan by the specified date, the Council may direct the Department to prepare a proposed a final retirement plan for the Council's approval.

(b) Upon the Council's approval of the final retirement plan, the Council may draw on the bond or letter of credit described in Condition (IV.C.4) to restore the site to a useful, non-hazardous condition according to the final retirement plan, in addition to any penalties the Council may impose under OAR Chapter 345, Division 29.

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

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

The Council finds that PEC has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition.

Conclusion

The Council finds that, subject to the conditions stated in this final order, PEC meets the retirement and financial assurance standard, OAR 345-022-0050.

D. LAND USE, OAR 345-022-0030

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

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

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

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

Discussion

PEC elected to address the Council's land use standard by obtaining local land use approvals.

The facility is located within the Port Industrial ("PI") Zoning District, as identified in the Morrow County Comprehensive Plan (1986) and Morrow County Zoning and Subdivision Code (2001). Both the Comprehensive Plan and the Zoning and Subdivision Code identify the facility

site as PI. The PI District (Development Code Section 3.073) lists specific uses that are permitted outright. Such uses include: chemical and primary metal industrial uses that are port-related [3.073(A)(3)] and manufacturing, refining, processing or assembling of any agricultural, mining or industrial products [3.073(A)(7)]. PEC included in its application a copy of a letter from the Morrow County Planning Department stating that "[t]he proposed use, processing of ethanol, is an outright use in the Port Industrial Zone." That determination addressed the facility, together with the related or supporting natural gas pipeline, electric supply line and ethanol pipeline.

Conclusion

The Council finds that PEC meets the land use standard, OAR 345-0022-0030.

E. STRUCTURAL STANDARD, OAR 345-022-0020

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

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

(b) The applicant can design, engineer, and construct the facility to avoid dangers to human safety presented by seismic hazards affecting the site that are expected to result from maximum probable ground motion events. As used in this rule 'seismic hazard' includes ground shaking, ground failure, landslide, liquefaction, lateral spreading, tsunami inundation, fault displacement, and subsidence;

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

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

Discussion

The analysis area for the structural standard is the area within the site boundary.

Site Characterization—Seismic Hazards

In the Project Order, the Department noted that the reference to seismic zone in the standard is based on an outdated edition of the Oregon Structural Specialty Code. The Project Order directs the applicant to characterize the seismic hazard as specified in the 2003 edition of the International Building Code (IBC), identifying maximum probable ground motion and taking

[2] In this and other conditions that begin with a reference to "sections (2) and (3)," those sections refer to renewable energy facilities and special criteria facilities and do not apply to the Columbia Ethanol Project.

into account ground failure and amplification for the site specific soil profile under the maximum credible and maximum probable seismic events[3].

In the ASC, PEC characterized the site in terms of seismic hazard by means of a combination of literature review, aerial photography, evaluation of existing subsurface data, and borings performed at the site in April 2006. PEC provided supplemental information for the application in a March 16, 2007 technical report from its geotechnical consultant, GRI. In its comments, DOGAMI noted that the site certificate application must reflect exactly what is in the GRI report. The information provided by GRI in its report of March 16, 2007 is considered part of the application and is the basis for review of compliance with this standard.[4]

The seismic hazard at the site would result from one of two seismic sources: subduction zone events and local crustal events. Each of these sources would have a different cause and would produce an earthquake with different characteristics, *i.e.*, peak ground accelerations, response spectra, duration of strong shaking, near field effects, surface rupture and hanging wall effects. For the Cascadia Subduction Zone event, the applicant considered a megathrust event with estimated magnitude of 8.3 to 9.0 Based on attenuation relationships published by Youngs et al. (1997), peak horizontal bedrock acceleration[5] at the site from this event would be approximately 0.08g.

PEC also considered seismic hazard from local crustal events. Due to a lack of reliable historic record of local earthquakes, the seismic capability of earthquake sources was used to estimate peak bedrock acceleration. For local crustal events, applicant considered an event of magnitude 6.5 at an epicentral distance of 8 km.

To account for the type and thickness of soil overlying the bedrock, PEC's consultant developed a generalized model of the subsurface profile at the site, based on subsurface explorations, available water well logs and estimates of shear wave velocities measured for similar soil and rock conditions at other sites. Based on this generalized profile, response spectra were prepared using the PROSHAKE computer program.

The results of the site response model indicate that peak horizontal ground accelerations are generated by the local crustal model for this site. PEC committed in the ASC to replacing the upper 7.5 feet of loose soil with compacted structural fill. Based on the subsurface conditions

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[3] On May 11, 2007, the Council amended the Structural Standard. In the Project Order, ODOE specified use of the 2003 International Building Code, consistent with the new standard. Therefore, the Project was reviewed for compliance with the new standard.

[4] Email from Bill Burns to Adam Bless, April 13, 2007, "Re: Additional Information on Pacific Ethanol"

[5] In assessing seismic hazards, the applicant must identify and characterize all earthquake sources capable of generating median peak ground accelerations greater than 0.05g (a force 1/20th that of gravity) on rock at the energy facility site. The magnitude ("M") of an earthquake is determined by the strength of the earthquake at its epicenter. The acceleration of the ground at any point, as measured in g's, depends on the magnitude of the earthquake, the distance from the epicenter to that point, the type of material through which the ground motion is transferred from the epicenter to the point, and other factors. For a given earthquake, there is only one magnitude (M), but the ground acceleration (g) is site specific.

encountered and the placement of structural fill, the applicant describes the site as Class C in accordance with Table 1615.1.1 of the IBC.

The results of the site specific study indicate that the selected design earthquakes result in a mean response spectrum that exceeds IBC design spectrum for Site Class C at periods less than 0.3 seconds. The applicant's geotechnical consultant recommended using a 0.0.period spectral acceleration (peak ground acceleration) of 0.20g for the design response spectrum.

In response to a Request for Additional Information by DOGAMI, PEC considered available fault information including a mapped fault within 1 km of the site. PEC concluded that the risk of ground rupture due to fault displacement in the project area is low.

The site is on relatively flat terrain, with dense sand and gravel present at shallow depths. Applicant concluded that the potential for earthquake induced landslides, lateral spreading, liquefaction and settlement or subsidence at the site are low.

Facility Design for Seismic Hazards

The application indicates that the hazard due to ground acceleration, ground rupture, liquefaction, and settlement or subsidence, is low. No special mitigation measures to address these hazards in the siting, design or construction of the facility were recommended. Therefore, the Council does not include any conditions outside the standard conditions of OAR Chapter 345, Division 27.

Non-Seismic Hazards

As noted above, the site is on relatively flat ground. The regional groundwater table is located within dense sand and gravel at the site. Slope instability and landslide are not geologic hazards that will impact the facility.

The project area is mantled with wind-deposited fine-grained sand and silt soil known as loess. The particles are of relatively uniform size and the silt usually has sufficient cohesion, or undrained shear strength, so that excavations made in the material can stand on near-vertical slopes. When loaded by conventional spread footings and saturated, the bond between soil particles becomes weakened and the soil structure altered which can result in large settlement at the ground surface.

Mitigation of Non-Seismic Hazards

The only potential for non-seismic geological hazard identified was the potential for settlement due to the presence of loess soils. Under the exemption for ethanol facilities described in the procedural history, PEC has already begun construction of the facility. The site preparation included removal of the upper 7.5 feet of soil to be replaced with compacted structural fill over the site's load bearing areas. PEC states that recompaction was accomplished in 8-inch lifts, with compaction exceeding 95%. No other non-seismic mitigation was specified. Therefore, the Council does not include any conditions beyond the standard conditions listed in OAR Chapter 345, Division 27.

Conclusion

The Council finds that PEC, through appropriate site-specific study, has adequately characterized the site as to seismic zone[6] and expected ground motion and ground failure, taking into account amplification, during the maximum credible and maximum probable seismic events; PEC can design, engineer, and construct the facility to avoid dangers to human safety presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events; PEC, through appropriate site-specific study, has adequately characterized the potential geological and soils hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the facility; and PEC can design, engineer and construct the facility to avoid dangers to human safety.

The Council adopts the standard conditions of OAR Chapter 345, Division 27, in the site certificate:

(IV.E.1) **The certificate holder shall design, engineer and construct the facility to avoid dangers to human safety presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events. As used in this condition, "seismic hazard" includes ground shaking, landslide, liquefaction, lateral spreading, tsunami inundation, near field effects, hanging wall effects, fault rupture, fault displacement, and subsidence.**

(IV.E.2) **The certificate holder shall notify the Department, the State Building Codes Division and DOGAMI promptly if site investigations or trenching reveal that conditions in the foundation rocks differ significantly from those described in the application for a site certificate. After the Department receives the notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division and to propose mitigation actions.**

(IV.E.3) **The certificate holder shall notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if shear zones, artesian aquifers, deformations, or clastic dikes are found or suspected at or in the vicinity of the site.**

(IV.E.4) **The certificate holder shall design, engineer and construct the facility to avoid dangers to human safety presented by non-seismic or aseismic hazards affecting the site. As used in this condition, "non-seismic or aseismic azards" includes settlement, landslides, groundwater, flooding, and erosion.**

The Council finds that PEC meets the structural standard, OAR 345-0022-0020.

[6] Because the Project Order directs PEC to characterize seismic hazard under the 2003 edition of the IBC, it is consistent with the revised Structural Standard adopted by the Council on May 11, 2007.

F. SOIL PROTECTION, OAR 345-022-0022

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

Discussion

The Council considers adverse impacts to soils because of potential related impacts to agricultural and forest land uses, native vegetation, fish and wildlife habitat, and water quality. Relevant under this standard are the facility's potential impacts such as erosion, compaction, mass wasting, slumping, chemical spills, and salt deposition.

The analysis area for the soil protection standard is the area within the site boundary.

Soil Type. PEC identified near-surface soil types in the analysis area using the U.S. Department of Agricultural ("USDA"), Soil Survey of Morrow County, Oregon (USDA 1983). The entire facility site is located in areas mapped as Quincy loamy fine sand, 2 to 12 percent slope.

The energy facility site is zoned as Port Industrial Land. No land uses dependent on productive soils, including the growing of crops, occurs at the site.

Impacts During Construction

Construction of the facility would result in unavoidable impacts to soils resulting from the permanent placement of facility components occupying about 9.5 acres. In addition, facility construction would temporarily disturb about 10.7 acres for staging areas and excavation for underground utilities.

Impacts During Operation

During operation of the energy facility, there would be limited potential for soil impacts. Paved and graveled surfaces and structures at the energy facility site would shed some storm water during periods of precipitation. Deposition from cooling towers could affect downwind soils. And, soils could be affected by land application of liquid effluent, as proposed under the existing Port of Morrow Water Pollution Control Facilities ("WPCF") permit.

Impacts During Retirement

During retirement of the facility, an increased potential for erosion, soil compaction, and chemical spills would exist. Soil would be exposed to accelerated erosion during the removal of foundations, floors, parking structures, pipelines, and roadways because of the lack of vegetation.

Cooling Tower Drift

The CEP is located about 1.5 miles northeast of the existing Coyote Springs Cogeneration Project ("Coyote Springs"). A cooling tower drift analysis was performed for

Coyote Springs as part of the EFSC review process in 1994. That drift analysis showed that no significant effects to surrounding natural resources would occur as a result of drift from the facility. Cooling tower drift from the CEP would have no significant adverse impact on natural resources for the following reasons:

- The CEP cooling tower system is about 20 percent of the size of the Coyote Springs system, based on a recirculation rate of 12,012 gallons per minute for CEP versus 65,875 gallons per minute for Coyote Springs.

- Cooling tower source water for both facilities comes from a common source, the Port of Morrow. Therefore, incoming water chemistry, including salt concentrations, is the same for both facilities.

- Due to their close proximity, general climatic conditions would be the same for both facilities. Therefore, weather conditions affecting drift deposition (*i.e.*, wind direction, wind speed, and relative humidity) would affect both facilities similarly.

- Both facilities are located on industrial land within the Port of Morrow, and surrounding land uses are similar for both facilities.

- Damage to vegetation as a result of cooling tower drift deposition generally occurs within 200 meters (656 feet) from the source. All areas within 1,000 feet of the CEP contain highly degraded weedy habitat. The facility area is all zoned as industrial land, with the nearest agricultural areas occurring more than 1,000 feet from the cooling tower.

- The CEP is located about 2,300 feet downwind from Messner Pond. Coyote Springs is located less than 500 feet upwind of Messner Pond. Earlier studies found that Coyote Springs would have no significant adverse impact on water quality in Messner Pond or its surrounding vegetation. Because CEP is further away and downwind from the pond, CEP would have no significant adverse impact on the pond or its surrounding vegetation.

- The aquatic resource nearest the CEP is the Columbia River, at a distance of about 1,500 feet. No significant impact to water quality in the Columbia River, because the majority of drift would fall out prior to reaching the river. In addition, the large volume of water in the river would rapidly dilute the small amount of drift that might reach the river.

Mitigation Measures

During construction of the facility, PEC will reduce the potential for erosion by adhering to the requirements of its NPDES Storm Water Discharge General Permit #1200-C for construction activities. The NPDES 1200-C permit includes a detailed Erosion and Sediment Control Plan that details measures designed to contain soil and construction equipment within the energy facility footprint and along the corridors of the related or supporting facilities. DEQ

issues and administers the NPDES 1200-C permit. During construction, PEC will implement the following sediment and erosion control measures: construction of a bioswale system, sediment barrier fence, ditch checks, catch basin inlet protection, and construction site entrance and exit treatments. After completion of construction, PEC would vegetate temporarily disturbed areas to limit soil exposure to wind and water erosion.

During construction, operation and retirement of the facility, PEC would implement a Spill Prevention Control and Countermeasure Plan ("SPCC"), an Emergency Action Plan, a Hazardous Waste Emergency Response/Contingency Plan, and a Hazardous Materials Management Plan (ASC, Exhibit G, page G-2). These plans, as well as the identification of a preferred transportation route, are to be developed in coordination with the Morrow County Fire District and all applicable local, state and federal regulatory agencies before beginning operation of the facility.

During operation of the facility, PEC would reduce the potential for erosion and sediment runoff by adhering to the erosion and sediment control plan incorporated in the NPDES Storm Water Discharge General Permit #1200-Z (for industrial activities) issued and administered by the DEQ.

During operation of the facility, PEC would regularly monitor its land application of process wastewater on pastureland to ensure the activity adheres to the conditions of the Port of Morrow WPCF permit.

In its ASC, PEC describes actions that are designed to address the Council's soil protection standard. The Council considers the following actions to be commitments by PEC. To find that PEC complies with OAR 345-022-0022, the Council adopts the following conditions in the site certificate:

(IV.F.1) **Throughout construction of the facility and post-construction restoration, the certificate holder shall use temporary erosion and sediment control measures, such as a bioswale system, sediment barrier fence, ditch checks, catch basin inlet protection, and construction site entrance and exit treatments.**

(IV.F.2) **Throughout construction of the facility and post-construction restoration, the certificate holder shall install permanent erosion control measures, as necessary.**

(IV.F.3) **Upon completion of construction of in an area, the certificate holder shall vegetate temporarily disturbed areas to limit soil exposure to wind and water erosion.**

(IV.F.4) **Before beginning operation of the facility, the certificate holder shall obtain a NPDES Storm Water Discharge General Permit #1200-Z (for industrial activities) from the Oregon Department of Environmental Quality.**

(IV.F.5) **Upon completion of retirement of the facility, the certificate holder shall vegetate temporarily disturbed areas to limit soil exposure to wind and water erosion.**

(IV.F.6) **During construction, operation and retirement of the facility, the certificate holder shall implement a Spill Prevention Control and Countermeasure Plan ("SPCC"), an Emergency Action Plan, a Hazardous Waste Emergency Response/Contingency Plan, and a Hazardous Materials Management Plan.**

The Council finds that the design, construction, operation and retirement of the facility, taking into account mitigation, are not likely to result in a significant adverse impact to soils including, but not limited to, erosion and chemical factors such as salt deposition, land application of liquid effluent, and chemical spills.

Conclusion

The Council finds that, subject to the conditions stated in this final order, PEC meets the soil protection standard, OAR 345-022-0022.

G. PROTECTED AREAS, OAR 345-022-0040

(1) Except as provided in sections (2) and (3), the Council shall not issue a site certificate for a proposed facility located in the areas listed below. To issue a site certificate for a proposed facility located outside the areas listed below, the Council must find that, taking into account mitigation, the design, construction and operation of the facility are not likely to result in significant adverse impact to the areas listed below. Cross-references in this rule to federal or state statutes or regulations are to the version of the statutes or regulations in effect as of May 11, 2007:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(2) Notwithstanding section (1), the Council may issue a site certificate for a transmission line or a natural gas pipeline or for a facility located outside a protected area that includes a transmission line or natural gas or water pipeline as a related or supporting facility located in a protected area identified in section (1), if other alternative routes or sites have been studied and determined by the Council to have greater impacts. Notwithstanding section (1), the Council may issue a site certificate for surface facilities related to an underground gas storage reservoir that have pipelines and injection, withdrawal or monitoring wells and individual wellhead equipment and pumps located in a protected area, if other alternative routes or sites have been studied and determined by the Council to be unsuitable.

(3) The provisions of section (1) do not apply to transmission lines or natural gas pipelines routed within 500 feet of an existing utility right-of-way containing at least one transmission line with a voltage rating of

115 kilovolts or higher or containing at least one natural gas pipeline of 8 inches or greater diameter that is operated at a pressure of 125 psig.

Discussion

The analysis area for protected areas is the area within the site boundary and 20 miles from the site boundary.

Eleven protected areas are located within the analysis area, as shown in Table 2. No portion of the facility would be located in a protected area, and all of the protected areas are one mile or more from the facility site.

TABLE 2
PROTECTED AREAS IN COLUMBIA ETHANOL PROJECT ANALYSIS AREA

Protected Area	Direction and Distance From Energy Facility
Umatilla National Wildlife Refuge	North, 4.6 miles
Irrigon Hatchery	Northeast, 7.6 miles
Umatilla Hatchery	Northeast, 7.4 miles
Crow Butte State Park (WA)	Northwest, 9.1 miles
Hermiston Agricultural Research and Extension Center	East, 17.53 miles
National Historic Oregon Trail ACEC	Southeast, 19.4 miles
Horn Butte ACEC	West, 17.3 miles
Coyote Springs Wildlife Area	Southeast, 1.3 miles
Irrigon Wildlife Area	Northeast, 13.7 miles
Power City Wildlife Area	East, 17.7 miles
Willow Creek Wildlife Area	West, 14.8 miles

Noise. The protected area nearest the facility is the Coyote Springs Wildlife Area located about 1.3 miles southeast of the facility. Noise from operation of the energy facility would be inaudible at the Coyote Springs Wildlife Area and thus inaudible at all of the other protected areas within the analysis area.

The Council finds that noise from the facility would not result in a significant adverse impact on any protected area.

Traffic. Increased traffic from construction and operation of the facility could affect the Umatilla National Wildlife Refuge and the Coyote Springs Wildlife Area. Access to the Umatilla National Wildlife Refuge is limited in the vicinity of the facility. Demand on the Coyote Springs Wildlife Area is limited by the small size and limited development of the associated parking area. Roads within the facility area are lightly traveled and would be capable of accommodating

the increased traffic resulting from construction and operation of the facility, even in the event that all shipments to and from the facility were by truck.

The Council finds that traffic generated by construction and operation of the proposed facility would not result in a significant adverse impact on any protected area.

Water Use. Water use at the facility would not affect any of the protected areas within the analysis area. Water for construction and operation of the facility would be purchased from the Port of Morrow, which supplies users in the Boardman Industrial Park with water for industrial use. The Port of Morrow obtains its water from a horizontal Ranney well collection system adjacent to and under the Columbia River. PEC does not anticipate that the Ranney well system would adversely affect the McCormack Unit of the Umatilla National Wildlife Refuge, because the water supplied by the Port would be drawn from the Columbia River, whereas the shallow marsh habitat at the McCormack Unit is driven primarily by groundwater, not river levels.

The Council finds that water use at the proposed facility would not result in a significant adverse impact on any protected area.

Wastewater Disposal. Wastewater disposal at the facility would not affect any of the protected areas within the analysis area. Wastewater would be generated from the washdown of equipment, including concrete trucks, during earthwork and construction. Such washdown would be the responsibility of the construction and would be likely to occur at a contractor-owned batch plant. Portable toilets would be provided for onsite sewage handling during construction and would be pumped and cleaned regularly by the construction contractor. Industrial wastewater generated during operation of the facility would be treated at the Port of Morrow industrial wastewater treatment facility. Wastewater from toilets and sinks would be treated at the Boardman wastewater treatment plant.

The Council finds that wastewater disposal at the proposed facility would not result in a significant adverse impact on any protected area.

Visual Impacts of Facility Structures. The facility, particularly the cooling tower and 150-foot distillation towers, may be visible from the Umatilla National Wildlife Refuge, the Coyote Springs Wildlife Area, and the Horn Butte ACEC under clear weather conditions. However, none of the Protected Areas from which the facility might be visible are managed for visual quality or are considered outstanding or remarkable scenic or aesthetic resources. The facility would be compatible with scenic or visual goals, objectives, or policies identified in applicable federal and local management plans.

Given the viewing distances ranging from about 15 to 20 miles, it is unlikely the steam plume would be visible from the National Historic Oregon Trail sites and segment in the analysis area. If it were visible, impacts, if any, would be negligible due to attenuating factors such as distance, haze, humidity, background landscape, light conditions, and weather.

The Council finds that the visual impacts of facility structures would not result in a significant adverse impact on any protected area.

Visual Impacts from Air Emissions. Air emissions from the proposed facility have been permitted by the ODEQ and are not expected to have adverse impacts on protected areas.

Dust may be generated at the proposed facility site during construction, and PEC would control such emissions by watering.

There are no Class 1 Visual Resources in the analysis area.

The Council finds that the visual impacts from air emissions of the facility would not result in a significant adverse impact on any protected area.

Conclusion

The Council finds that, subject to the conditions stated in this final order, PEC meets the protected areas standard, OAR 345-022-0040.

H. FISH AND WILDLIFE HABITAT, OAR 345-022-0060

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

Discussion

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

Habitat Categories

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

Habitat Category 2 is "essential habitat for a fish or wildlife species, population, or unique assemblage of species and is limited either on a physiographic province or site-specific basis depending on the individual species, population or unique assemblage." The mitigation goal for Habitat Category 2, if impacts are unavoidable, is "no net loss of either habitat quantity or quality and to provide a net benefit of habitat quantity or quality." The implementation standard is "avoidance of impact through alternatives to the proposed development action" or "mitigation of impacts, if unavoidable, through reliable in-kind, in-proximity habitat mitigation to achieve no net loss of either pre-development

habitat quantity or quality. In addition, a net benefit of habitat quantity or quality must be provided."

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

Habitat Category 4 is "important habitat for fish and wildlife species." The mitigation goal for Habitat Category 4 is "no net loss in either existing habitat quantity or quality." The implementation standard is "avoidance of impacts through alternatives to the proposed development action" or "mitigation of impacts, if unavoidable, through reliable in-kind or out-of-kind, in-proximity or off-proximity habitat mitigation to achieve no net loss in either pre-development habitat quantity or quality."

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

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

Habitat in the Analysis Area

The analysis area for fish and wildlife habitat includes the area within the site boundary and two miles from the site boundary.

Habitat Categories 2, 4, 5 and 6 occur within the analysis area.

Habitat Category 2 occurs as the Columbia River, which runs along the north edge of the project. The Columbia River has the potential to provide riparian habitat for the Pacific lamprey (Lampetra tridentate) and margined sculpin (Cottus marginatus) during various life stages and at various times of the year. While the facility would cause no impacts to the Columbia River, a related or supporting ethanol pipeline would interconnect with a third-party dock above the river's Ordinary High Water ("ODW") line.

Habitat Category 4 occurs as occurs as grassland habitat in one small area within the northern corner of the analysis area between the railroad tracks and the Columbia River. This

grassland habitat consists mainly of weedy herbaceous species with scattered native shrubs, such as bitterbrush (Purshia tridentate) and other weedy shrub species. Cheatgrass (Bromus tectorum) is very common, comprising 40-50 percent cover. This grassland habitat has the potential to provide habitat for ground-nesting birds, such as the western meadowlark, and foraging habitat for raptors, such as the red-tailed hawk. Prey species may be less common in this area than in better habitat off site, due to the presence of less valuable forage such as cheatgrass. Also, because perching trees are scarce this area and industrial disturbance levels are high, use by raptors, songbirds and other wildlife sensitive to the presence of humans is expected to be low. This area may have some importance to adjacent aquatic habitats because of the scarcity of riparian vegetation along the Columbia River in the region.

Habitat Category 5 occurs as the majority of the area outside the abandoned crop pivot. This habitat type includes areas completely dominated by cheatgrass and other weeds, such as tumblemustard, bulbous blue grass, Russian thistle, and cereal rye (Secale cereale). Patches of native bunchgrass are very uncommon. The dense weed cover limits the ability of most wildlife species to use these areas for forage or cover.

Habitat Category 6 occurs as developed areas including gravel and dredge spoil piles found in the northern corner of the analysis area, as well as graveled roads and a 20-foot corridor on the existing railroad loop track. Due to the high level of disturbance, no special status or sensitive species are known or expected to occur in the Category 6 habitats.

Potential Impacts – Construction and Operation

Direct Impacts (Habitat Quantity): Construction of the facility will take place within and will temporarily affect 7.3 acres of Habitat Category 5 and 3.4 acres of Habitat Category 6. Operation of the facility would permanently affect 6.7 acres of Habitat Category 5 and 2.8 acres of Habitat Category 6 (CEP ASC, Exhibit P, Table P-3).

Habitat Category 5 Impacts: During construction, PEC will disturb 7.3 acres of Habitat Category 5. Of this impact, 6.7 acres will be permanent. Impacts will be to grassland heavily dominated by cheatgrass and other weeds.

Habitat Category 6 Impacts: During construction, PEC will disturb 3.4 acres of Habitat Category 6. Of this impact, 2.8 acres will be permanent. Impacts will be to areas already subject to considerable disturbance, including gravel piles, dredge spoil piles, existing roads, and a 20-foot corridor on the railroad loop track.

Indirect Impacts (Habitat Quality). Indirect effects on habitat quality during construction and operation could occur due to noise, traffic, human activity, maintenance activities and operation of the energy facility.

Construction: Because of the existing high levels of human and industrial disturbance in the area of the proposed facility, construction of the energy facility is not expected to result in any direct impacts to special status or sensitive plant or wildlife species (PEC ASC, Exhibit P, page P-12). For this reason, the Council finds that construction of the facility is not likely to result in a significant adverse impact to fish and wildlife habitat.

Operation: Because of the existing high levels of human industrial disturbance in the area of the proposed facility, operation of the energy facility is not expected to result in any direct impacts to special status or sensitive plant or wildlife species (PEC ASC, Exhibit P, page P-12). For this reason, the Council finds that operation of the facility is not likely to result in a significant adverse impact to fish and wildlife habitat.

Retirement: Because of the existing high levels of human industrial disturbance in the area of the proposed facility, operation of the energy facility is not expected to result in any direct impacts to special status or sensitive plant or wildlife species (PEC ASC, Exhibit P, page P-12). In addition, as required by Council rules, the site certificate would require PEC to submit a retirement plan before permanent shutdown of the facility. The plan must include measures to minimize impacts to fish and wildlife habitat and to ensure no net loss of habitat quantity or quality with respect to essential or important habitat. For these reasons, the Council finds that retirement of the facility is not likely to result in a significant adverse impact to fish and wildlife habitat.

Mitigation: PEC proposes measures to avoid and mitigate for direct and indirect impacts to habitat disturbed by construction, operation, and retirement of the energy facility.

Only Habitat Category 5 grassland habitat and Habitat Category 6 developed areas would be directly affected by construction and operation of the proposed facility. In addition, there is some potential for harm to listed fish species resulting from construction of the dock structure and attachment of the pipelines and the accidental release of fluids transferred during the docking process. PEC has described actions designed to address these direct and potential impacts.

With respect to direct impacts to Habitat Category 5 grasslands, following completion of construction activities PEC would restore temporarily affected areas to pre-construction conditions using a seed mix approved by ODFW and the Morrow County Soil and Water Conservation District. To mitigate for permanent impacts, in coordination with ODFW, PEC would implement a habitat mitigation plan calling for enhancement of the Coyote Springs Wildlife Area.

With respect to direct impacts to Habitat Category 6 developed areas, PEC will: (1) design the facility components to be the minimum size needed for operations; (2) use best management practices to prevent loss of topsoil during construction; and (3) control noxious seeds in areas disturbed by construction activities.

PEC developed a mitigation plan for Category 5 and 6 habitats in consultation with the ODFW District Biologist. PEC submitted the final version of this plan to the Department on March 30, 2007[7]. The ODFW District Biologist concurred, also on March 30, 2007[8]

[7] David Evans Assoc. memo from Phil Rickus to Steve Cherry, ODFW "Habitat Mitigation Plan", March 30, 2007
[8] email from Steve Cherry, ODFW to Dana Siegfried, DEA, March 30, 2007

In its comments on the application ODFW raised concern about the potential for spills during ethanol shipment, potential impact to the river from wastewater discharge, and impact to the river from construction and operation of the barge loading facility.

In its January 15 supplement, PEC stated that wastewater discharge would be to the Port of Morrow under Water Pollution Control Facility (WPCF) permit 102325. The Port does not discharge to the Columbia River or other surface waters. The WPCF permit allows discharge to ground at agronomic rates. A condition included under the Organization Expertise Standard, shown at section IV.B of this Order, requires that PEC provide documentation when DEQ has modified the WPCF permit to include CEP's output.

PEC has contracted with Tidewater, Inc. to provide barge transportation services. Tidewater is constructing the docking facility in concert with the Port of Morrow, for the use of CEP and other tenants at the Port. Therefore the permits required for the docking facility are "third party permits" under OAR 345-022-0010(3) and (4). A more complete discussion of the Tidewater permits is provided at section IV.B of this order. The dock requires a section 404 permit from the US Army Corps and a section 401 permit from DEQ.

Although Tidewater is under US Army Corps jurisdiction, PEC described measures that Tidewater will take to minimize impacts to fish habitat. These measures are described in the Biological Assessment (BA) that Tidewater submitted to the Corps under National Environmental Policy (NEPA) and Endangered Species Act (ESA) requirements.

The BA describes measures to prevent and mitigate spills during barge operation. These include use of double hulled barges, the use of an "ecology box" that isolates the area where hoses are connected during product transfer, compliance with Coast Guard loading protocols, redundant high-level alarms that are tied into the shore product pump and set for automatic shutoff in case of high tank level, restrictions on crew work hours, ensuring that a loader operator is assigned to watch the entire loading process to minimize the chances of leaks in the event the mechanical safeguards fail, and a Coast Guard required inspection prior to every product transfer. The BA also describes a detailed spill response program, including participation in "worst case" spill response exercises conducted jointly with Conoco Philips, the Coast Guard, Washington Dept. of Ecology and Oregon DEQ.

During construction of the dock, no uncured concrete will come into contact with surface water, and no materials would enter the waterway. Tidewater will use Best Management Practices (BMP) for concrete mixing, placing and curing. The BA includes an extensive list of impact avoidance and reduction measures to ensure that the docking facility does not hinder recovery of ESA species.

Tidewater is constructing the dock in concert with the Port of Morrow, and not for exclusive use by the CEP. Therefore the jurisdiction is with the Corps. However, the BA and the federal regulations administered by the Corps indicate that the docking facility is not likely to have a significant adverse impact on Category 2 habitat for listed fish species.

Based on the information in the January 15, 2007 supplement, the BA submitted by Tidewater, and the mitigation plan for Category 5 and 6 habitat, ODFW commented that its concerns regarding spill response and wildlife mitigation were satisfied[9]. The mitigation plan is attached to this Order as Attachment A, and the Council adopts this plan as a condition and an attachment to the site certificate.

In addition to the mitigation plan, PEC described actions that are designed to address the Council's fish and wildlife habitat standard. The Council considers the following actions to be commitments by PEC. To find that PEC complies with OAR 345-022-0060, the Council adopts the following conditions in the site certificate:

(IV.H.1) **After completion of construction of the facility, the certificate holder shall restore areas subject to temporary disturbance to pre-construction conditions using a seed mix approved by ODFW and the Morrow County Soil and Water Conservation District.**

(IV.H.2) **The certificate holder shall implement the habitat mitigation plan submitted on March 30, 2007 and shown as Attachment A to this Order.**

(IV.H.3) **During construction of the facility, the certificate holder shall implement the following measures:**

(a) **Design the facility components to be the minimum size needed for operations;**

(b) **Use best management practices to prevent loss of topsoil during construction; and**

(c) **Control noxious weeds in areas disturbed by construction activities.**

Consistency with ODFW Goals: The Council finds that, subject to the conditions adopted in this final order, the facility is consistent with the ODFW fish and wildlife habitat goals and standards for the reasons stated below:

- The proposed facility would not affect Habitat Categories 1, 2, 3 or 4.
- The proposed facility would unavoidably and permanently affect about 6.7 acres of Habitat Category 5 grassland habitat. PEC would meet the mitigation goal (net benefit in habitat quantity or quality) by implementing a habitat mitigation plan designed in coordination with ODFW to enhance the Coyote Springs Wildlife Area.
- The proposed facility would unavoidably and permanently affect about 2.8 acres of Habitat Category 6 developed areas. To reduce impacts to Habitat Category 6 developed areas to the minimum amount possible, PEC would implement the following measures: (1) Require the project facilities to be the minimum size needed for operations; (2) Use best management practices to prevent loss of

[9] email form Rose Owen, ODFW to Dana Siegfried, DEA, February 26, 2007

topsoil during construction; and (3) Control noxious weeds in areas disturbed by construction activities.

Conclusion

The Council finds that, subject to the conditions stated in this final order, PEC meets the fish and wildlife habitat standard, OAR 345-0022-0060.

I. THREATENED AND ENDANGERED SPECIES, OAR 345-022-0070

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

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

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

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

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

Discussion

The analysis area for threatened and endangered fish and wildlife species is the area within the site boundary and ¼ mile from the site boundary. The analysis area for threatened and endangered plant species is the area within the site boundary and two miles from the site boundary. "Threatened and endangered plant species" means species listed as threatened or endangered by the state under ORS 564.105 and by the federal government under 16 USC 1533. "Threatened and endangered animal species" means species listed as threatened or endangered by the state under ORS 469.172 and by the federal government under 16 USC 1533.

Threatened and Endangered Plant Species

The Oregon Department of Agriculture ("ODA") designates state-listed threatened or endangered plant species under ORS Chapter 564 and OAR Chapter 603, Division 73. PEC contacted the ODA for information about plant distribution and protection and conservation programs.

No federal- or state-listed endangered, threatened or candidate plant species are reported to occur in the analysis area. Nine species are reported to have potential habitat within the analysis area: Northern Wormwood (*Artemisia campestris var. wormskioldii*) (C), Henderson's Needlegrass (*Achnatherum hendersonii*) (C), Dwarf Suncup (*Camissonia pygmaea*) (C), Vernal Pool Mousetail (*Myosurus sessilis*) (SoC), Whitehead Navarretia (*Navarretia leucocephala*) (E), Laurence's Milkvetch (*Astragalus collinus var. laurentii*) (T), Disappearing Monkeyflower

(*Mimulus evanescens*) (C), Liverwort Monkeyflower (*Mimulus jungermanniodes*) (T), and Robinson's Onion (*Allium robinsonii*) (SoC). PEC reports that none of the species has been documented as occurring in the analysis area, nor were any species observed during field survey or reconnaissance.

Potential Impacts on Plants: PEC conducted botanical surveys for the analysis area and found none of the listed or candidate species. Impacts to these species are not likely to occur.

Construction and Operation

Direct Impacts (Habitat Quantity). Based on the above discussion, the Council finds that there will likely be no direct impacts to threatened, endangered or candidate plant species or their habitat on the energy facility site.

Indirect Impacts (Habitat Quality). Based on the above discussion, the Council finds that there will likely be no indirect impacts to threatened, endangered or candidate plant species or their habitat on the energy facility site.

Retirement

Pursuant to conditions and Council rules, when PEC retires the facility, it must restore the site to a useful, non-hazardous condition following permanent cessation of construction or operation of the facility. Site restoration would consist primarily of dismantling and removing unneeded equipment and structures. In addition, the Council will require PEC to submit a retirement plan before permanent shutdown of the facility. The plan would include measures to minimize impacts to listed threatened, endangered or candidate plant species. The Council finds that there will likely be no impacts to threatened, endangered or candidate plant species or their habitat from the retirement of the energy facility.

Avoidance/Mitigation Measures

Because of the absence of threatened, endangered or candidate plant species within the analysis area, there is no need for avoidance or mitigation measures.

Conclusion: Consistency with Oregon Department of Agriculture Goals

The Oregon Department of Agriculture, commenting on the Application, stated that:

> "According to state law, if potential habitat occurs on the project property, the project site must be surveyed for this species, and the Oregon Department of Agriculture (ODA) must be notified of the results of this survey, before initiation of construction. The applicant has already acquired (from the U.S. Fish and Wildlife and the Oregon Natural Heritage Information Center) a listing of all known listed plant locations within the two mile project impact area, and found that there are no known occurrences of listed plants within this area. The Oregon Department of Agriculture would like to point out that this step does not necessarily fulfill the requirements of ORS 564, since not all occurrences of listed plants are known, and it is possible that an unknown occurrence might be located in a project area. However, ODA concurs with the findings of the applicant. It is extremely unlikely that any potential habitat for either of the two state-listed plants found in

Morrow County exists at the project site. Therefore, no additional survey is required, and ODA has no further comments."[10]

The Council finds that the operation, construction and retirement of the facility are not likely to have an adverse impact on any threatened, endangered or candidate plant species or their habitat.

Threatened and Endangered Fish and Wildlife Species

The Oregon Fish and Wildlife Commission designates state-listed threatened and endangered wildlife species under ORS 496.172. OAR Chapter 635, Division 100, provides authority for adoption of the state sensitive species list and the Wildlife Diversity Plan. It contains the state list of threatened and endangered wildlife species. PEC reviewed ODFW sources and consulted with the USFWS and with ORNHIC for information about state- and federally-listed and candidate species.

No state-or federal-listed threatened or endangered wildlife species are known to occur in the analysis area. However, several state- and federally-listed threatened ("T"), endangered ("E"), or candidate ("C") species have the potential to occur within the analysis area, including Bald Eagle (Haliaeetus leucocephalus) (T), Yellow-Billed Cuckoo (Coccyzus americanus) (C), Canada Lynx (Lynx Canadensis) (T), Washington Ground Squirrel (Spermophilus washingtonii) (C), Mid-Columbia River Steelhead (Oncorhynchus mykiss) (T), Snake River Basin Steelhead (Oncorhynchus mykiss) (T), Upper Columbia River Steelhead (Oncorhynchus mykiss) (E), Snake River Sockeye Salmon – Salmon River Tributary to the Snake River (Oncorhynchus nerka) (E), Upper Columbia River Chinook Salmon (Oncorhynchus tshawytscha) (E), and Snake River Chinook Salmon (Oncorhynchus tshawytscha) (T). (PEC ASC, Exhibit Q, Table Q-1). PEC did not detect any of the species within the analysis area.

Potential Impacts on Fish and Wildlife: PEC conducted wildlife surveys for the analysis area and found none of the listed or candidate species. Listed or candidate fish species may be impacted by construction and operation of the docking facility. However, that facility will be constructed and operated by Tidewater Inc. in concert with the Port of Morrow, for the use of other CEP and other industrial facilities as the Port of Morrow. Jurisdiction is with the US Army Corps of Engineers. As described in section IV.H of this order, Tidewater has submitted a Biological Assessment that describes potential impacts, avoidance measures and mitigation measures to avoid and minimize the potential for impact on listed fish species. PEC found no bald eagle nests or roosting areas within the analysis area. The nearest bald eagle nest was found on the Columbia River at the mouth of the Umatilla River about 16 miles from the site boundary. There would be no anticipated impacts to the bald eagle resulting from construction or operation of the proposed facility.

Construction and Operation

Direct Impacts (Habitat Quantity). Based on the above discussion, the Council finds that there will likely be no direct impacts to threatened, endangered or candidate fish or wildlife species or their habitat on the energy facility site.

[10] Email from Rebecca Currin, ODA to Adam Bless, ODOE, 10/11/2006

Indirect Impacts (Habitat Quality). Based on the above discussion, the Council finds that there will likely be no indirect impacts to threatened, endangered or candidate fish or wildlife species or their habitat on the energy facility site.

Retirement

Pursuant to conditions and Council rules, when PEC retires the facility, it must restore the site to a useful, non-hazardous condition following permanent cessation of construction or operation of the facility. Site restoration would consist primarily of dismantling and removing unneeded equipment and structures. In addition, the Council will require PEC to submit a retirement plan before permanent shutdown of the facility [Condition (IV.C.2)]. The plan would include measures to minimize impacts to listed threatened, endangered or candidate fish or wildlife species. The Council finds that there will likely be no impacts to threatened, endangered or candidate fish or wildlife species or their habitat from the retirement of the energy facility.

Avoidance/Mitigation Measures

Because of the absence of threatened, endangered or candidate fish or wildlife species within the analysis area, there is no need for avoidance or mitigation measures.

Conclusion

The Council finds that, subject to the conditions stated in this final order, PEC meets the threatened and endangered species standard, OAR 345-022-0070.

J. SCENIC RESOURCES, OAR 345-022-0080

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

Discussion

The analysis area for scenic and aesthetic values is the area within the site boundary and 30 miles from the site boundary.

Within the analysis area, PEC identified the following federal land management and local land use plans:

- John Day Proposed Management Plan, Two Rivers and John Day Resource Management Plan Amendments and Final Environmental Impact Statement, (Record of Decision, February 2001)
- Proposed Two Rivers Resource Management Plan Final Environmental Impact Statement, September 1985 (Record of Decision, June 1986)
- Baker Resource Management Plan (Record of Decision, July 1989)
- Proposed Spokane Resource Management Plan Amendment Final Environmental Impact Statement (1992)

- Management and Use Plan Update Final Environmental Impact Statement, Oregon National Historic Trail and Mormon Pioneer National Historic Trail, August 1999 (Record of Decision, November 1999)
- Lewis and Clark National Historic Trail Comprehensive Plan for Management and Use (January 1982)
- Morrow County, Oregon, Comprehensive Plan (January 30, 1986)
- Umatilla County, Oregon, Comprehensive Plan (May 9, 1983; Amended December 2, 1987)
- Gilliam County, Oregon, Comprehensive Plan (October 25, 2000)
- Benton County, Washington, Comprehensive Plan (1997)
- Klickitat County, Washington, Comprehensive Plan (August 1977)
- Yakima County, Washington, Policy Plan (May 20, 1997; Amended December 28, 1998)

Scenic and aesthetic values identified as significant in the federal land management plans and local land use plans applicable to the analysis area, together with distance and direction from the energy facility site, are shown in Table 3.

Construction, operation and retirement of the proposed facility would not result in any loss of vegetation or alteration of the landscape in any of the identified scenic and aesthetic resources.

According to computer modeling and visibility analyses, field investigation, and interviews with local, state, and federal agency staff conducted by PEC, the proposed facility would not be visible from the National Historic Oregon Trail sites and segment in the analysis area. Given the viewing distances ranging from 15 to 20 miles, it is unlikely that the steam plume would be visible from the trail sites. If it were visible, impacts, if any, would be negligible due to attenuating factors such as distance, haze, humidity, background landscape, light conditions or weather.

TABLE 3
SCENIC AND AESTHETIC VALUES IDENTIFIED AS SIGNIFICANT IN APPLICABLE FEDERAL LAND MANAGEMENT PLANS AND LOCAL LAND USE PLANS

Scenic and Aesthetic Value	Direction and Distance from Facility
Oregon National Historic Trail High Potential Sites and Segment:	
• Echo Complex	Southeast, 23.8 miles
• Echo Meadows	Southeast, 19.4 miles
• Well Spring	South, 15.5 miles
• Boardman Segment	South, 14.1 miles
• Fourmile Canyon	Southwest, 24.8 miles

Conclusion

The Council finds that PEC meets the scenic and aesthetic values standard, OAR 345-022-0080.

K. HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES, OAR 345-022-0090

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

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

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

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

Discussion

The analysis area for historical, cultural and archaeological resources is the area within the site boundary. This area would include the energy facility site and the ethanol pipeline corridor.

Archaeological Investigators Northwest, Inc. ("AINW") conducted cultural resource surveys to address State of Oregon laws protecting significant archaeological sites. The work was completed using federal compliance standards and was done by AINW staff meeting the professional qualification standards of the Secretary of the Interior. In addition to the fieldwork, AINW performed a literature review and records search to identify previously recorded sites and surveys near the proposed facility site and to determine if archaeological resources had been previously identified in the facility area.

Resources Listed or Eligible for Listing in the National Register of Historic Places. In the course of its cultural resource survey, AINW determined that one archaeological site near the proposed facility (site "35MW13") had been previously recorded in the National Register of Historic Places ("NRHP"). In the course of its field investigations, AINW encountered five pieces of lithic debitage of cryptocrystalline silicate at varying depths between the surface and 39 inches below the surface at shovel test ST-2 near the proposed barge docking facility and about 100-115 feet south of the recorded boundary of 35MW13. Accordingly, the boundaries of 35MW13 have been revised to incorporate the ST-2 location, and a site form amendment has been prepared. AINW also found one lithic debitage fragment on the surface at shovel test ST-18 in the proposed ethanol pipeline alignment and about 820 feet south of the boundary of 35MW13. This surface find was recorded as prehistoric isolate 06/1288-IS-1.

In comments on the application, the State Historic Preservation Officer (SHPO) raised concerns primarily about the ethanol pipeline that will connect the CEP with the barge loading facility. The barge loading facility will be constructed and operated by Tidewater, and therefore

all permits associated with its construction and operation are considered "third party" and not under direct Council review. However, the SHPO noted that it is unclear where the Tidewater responsibility ends and where PEC's responsibility begins. He noted that site 35MW13 is not well mapped and in fact its boundaries are not well known. This is largely due to previous development and also due to silt deposition from the hydroelectric dam. In follow-up correspondence, the SHPO noted that the existing rail loop was constructed without archeological surveys, possibly further damaging the archeological site. Finally, the SHPO noted that the true extent of the archeological site could extend half a mile along the shoreline of the Columbia River, and could extend inland from the river as far as the existing loop track. The archeological site may also have been degraded during prior work by the Port of Morrow.

In response to SHPO's concerns, PEC provided clarification on the final location of the ethanol pipeline, the boundary between PEC's portion and Tidewater's portion, and steps to ensure no further degradation of site 35MW13. In particular, PEC added the following supplemental information to the application:

i The location of the ethanol pipeline will be moved as shown on Figure C-2 rev. 2 dated 2/15/07. The boundary between PEC's portion and Tidewater's portion is as shown on this figure.

ii The pipeline may be constructed underground between the ethanol production plant and the existing loop track. The pipeline will cross the loop track by horizontal bore. On the shore (north) side of the existing loop track, the pipeline will be place above ground on footings designed substantially as shown in the Norwest Engineering Drawing provided to the Oregon Department of Energy and dated 2/21/07.

iii PEC will ensure that an archeological monitor is on site during excavation of the trench and subsequent boring of the pipeline.

In its ASC, PEC describes actions that are designed to address the Council's historic, cultural and archaeological resources standard. The Council considers the following actions to be commitments by PEC. To find that PEC complies with OAR 345-022-0090, the Council adopts the following conditions in the site certificate:

(IV.K.1) **Before beginning construction of the proposed related or supporting ethanol pipeline, the certificate holder shall conduct additional investigation to better define the vertical and horizontal extent of the archaeological resources in the vicinity of the proposed ethanol pipeline in consultation with the Oregon Historic Preservation Office ("SHPO") and the Confederated Tribes of the Umatilla Indian Reservation. The investigation shall include protocols and procedures for protection of known cultural sites, including the identification of sites in the field and on project construction maps, and for accidental discovery of additional sites.**

(IV.K.2) **During construction of the facility, the certificate holder shall ensure that a qualified person instructs construction personnel in the identification of archaeological and cultural resources, and ensure that archaeological construction monitors are present to prevent accidental impacts to known cultural resources or to any newly discovered resources.**

To find that PEC complies with OAR 345-022-0090, the Council adopts the following standard condition in the site certificate:

(IV.K.3) **During construction of the facility, in the event any archaeological or cultural resources are discovered, the certificate holder shall cease all ground-disturbing activities in the immediate area until a qualified archaeologist can evaluate the significance of the find. If the archaeologist determines that the resources are significant, the certificate holder shall make recommendations to the Council for mitigation in consultation with the State Historic Preservation Office ("SHPO"), the Department, the Confederated Tribes of the Umatilla Indian Reservation, and other appropriate parties. Mitigation measures shall include avoidance or data recovery. The certificate holder shall not restart work in the affected area until it has demonstrated to the Department that it has complied with the archaeological permit requirements administered by SHPO.**

The representations made by PEC in correspondence with ODOE and SHPO are considered commitments by the applicant. Based on these representations, the Council adopts the following conditions in the site certificate:

(IV.K.4) **The location of the ethanol pipeline will be moved as shown on Figure C-2 rev. 2, dated 2/15/07. The boundary between the certificate holder's portion and Tidewater's portion is as shown on this figure.**

(IV.K.5) **The pipeline may be constructed underground between the ethanol production plant and the existing loop track. The pipeline will cross the loop track by horizontal bore. On the north side of the existing loop track, the pipeline will be placed above ground on footings designed substantially as shown in the Norwest Engineering Drawing provided to the Oregon Department of Energy and dated 2/21/07.**

(IV.K.6) **The certificate holder shall ensure that a qualified archeological monitor is on site during excavation of the trench and subsequent boring of the pipeline.**

Conclusion

The Council finds that, subject to the conditions stated in this final order, PEC meets the historic, cultural and archaeological resources standard, OAR 345-022-0090.

L. RECREATION, OAR 345-022-0100

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

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

(b) The degree of demand;

(c) Outstanding or unusual qualities;

(d) Availability or rareness;

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

Discussion

The analysis area for recreational opportunities is the area within the site boundary and five miles from the site boundary.

Existing and proposed recreational opportunities within the analysis area include: Umatilla National Wildlife Refuge, Columbia River, Coyote Springs Wildlife Area, Columbia River Heritage Trail, and The Marina Park at Boardman. The direction and distance from the facility of each of these recreational opportunities are described in Table 4.

TABLE 4
RECREATIONAL OPPORTUNITIES IN COLUMBIA ETHANOL PROJECT ANALYSIS AREA

Recreational Opportunity	Direction and Distance from Facility
Umatilla National Wildlife Refuge	North, 4.6 miles
Columbia River	North, 0.5 mile
Coyote Springs Wildlife Area	Southeast, 1.3 miles
Columbia River Heritage Trail	South, 0.2 mile
The Marina Park at Boardman	West, 3 miles

Recreational opportunities within the analysis area include water-based recreation activities on the Columbia River, such as boating, fishing, and waterfowl hunting, upland and limited big game hunting, nature and wildlife photography, and trail walking. There are no recreational opportunities within the site boundary.

Direct or Indirect Loss of an Opportunity: There would be no direct loss at any of the identified recreational opportunities.

There could be an indirect loss at the McCormack Unit of the Umatilla National Wildlife Refuge resulting from an impact to groundwater levels affecting shallow marsh habitat and a corresponding reduction in the presence of waterfowl and other species dependent on this habitat type. The indirect impact, if any, is expected to be negligible.

There could be an indirect loss on the Columbia River resulting from barge traffic. PEC estimates there would be three barges per week entering and exiting the docking facility. Indirect impacts from barge traffic could include wake disturbance to hunters, fishers, and boaters. The indirect impact, if any, is expected to be very low.

There could be an indirect loss at the Coyote Springs Wildlife Area resulting from traffic impacts. The indirect impact, if any, is expected to be low.

There could be an indirect loss at the Columbia River Heritage Trail resulting from traffic impacts to portions of the trail in the immediate vicinity of the facility. The indirect impact, if any, is expected to be low.

There could be an indirect loss at The Marina Park resulting from traffic impacts to the access route to the park. The indirect impact, if any, is expected to be negligible.

The Council finds that there would be no direct loss or significant indirect loss of an opportunity as a result of construction or operation of the facility.

Noise: Projected noise levels resulting from construction and operation of the facility would be minimal. The nearest sensitive noise receptor, a residential property located about 0.9 mile from the facility, would not be affected by the facility. Accordingly, the Umatilla National Wildlife Refuge, Coyote Springs Wildlife Area and The Marina Park, all of which are more than one mile from the facility, would not be affected by noise from the facility. Although the Columbia River and the Columbia River Heritage Trail occur in close proximity to the facility, the river and trail are currently exposed to noise emanating from the operation of equipment and movement of large transport vehicles at the Port of Morrow, the Boardman Industrial Park, and other nearby industries.

The Council finds that noise from the facility would not result in a significant adverse impact to any recreational opportunity.

Traffic: During construction of the facility, construction-related traffic could cause short-term delays when trucks deliver equipment and the preassembled portions of the facility. Those delays will be temporary and are not expected to have an adverse impact on highways in the vicinity of the facility. Construction-related traffic delays on local roadways could occur but are expected to be limited due to the low use of the local roadways. Under the worst-case scenario under which all corn deliveries and ethanol product shipments were transported by truck, operation of the facility could cause traffic to increase by up to 284 trips per day, seven days per week. This increase falls short of the threshold under which Morrow County would require the applicant to complete a traffic impact assessment. Roads in the vicinity of the facility are lightly traveled and would be able to accommodate the increased traffic. Construction and operation of the facility would not work an undue hardship on recreational opportunities in the analysis area.

The Council finds that traffic generated by construction and operation of the facility would not result in a significant adverse impact to any recreational opportunity.

Water Use: PEC would purchase water from the Port of Morrow, which supplies users in the Boardman Industrial Park with water for industrial use. The water is obtained from a horizontal Ranney well collection system adjacent to and under the Columbia River under an existing water right. PEC does not expect its use of water to affect the McCormack Unit of the Umatilla National Wildlife Refuge, because the water needed for operation of the facility would be drawn from the Columbia River and the shallow marsh habitat at the McCormack Unit is driven primarily by groundwater, not river levels.

The Council finds that water use at the facility would not result in a significant adverse impact to any recreational opportunity.

Wastewater Disposal: Wastewater could be generated during construction of the facility as a result of the wash-down of concrete trucks. However, such wash-down will be the responsibility of the contractor and is expected to occur at the contractor-owned batch plant. Portable toilets would be provided for on-site sewage and would be pumped and cleaned regularly by the construction contractor. Industrial wastewater generated during operation of the facility would be treated at the Port of Morrow industrial wastewater treatment facility. Sewage for toilets and sinks would be treated at the Boardman wastewater treatment plant located in Boardman. Wastewater resulting from construction and operation of the facility would not affect recreational opportunities in the analysis area.

The Council finds that wastewater disposal at the facility would not result in significant adverse impacts to any recreational opportunity.

Visual Impacts of Facility Structures: The facility, including the cooling tower, distillation towers and plume, will be visible from the five important recreational opportunities in the analysis area. However, the facility is located in an area already heavily affected by industrial development and would be compatible with applicable federal and local land use plans governing those facilities.

The Council finds that the visual impacts of facility structures would not result in a significant adverse impact to any recreational opportunity.

Visual Impacts from Air Emissions: Air emissions from the facility have been permitted by ODEQ and are not expected to have adverse impacts on recreational opportunities. Dust generated during construction of the facility would be controlled by watering and would be temporary and negligible.

The Council finds that the visual impacts from air emissions of the facility would not result in a significant adverse impact to any recreational opportunity.

Conclusion

The Council finds that PEC meets the recreation standard, OAR 345-022-0100.

M. PUBLIC SERVICES, OAR 345-022-0110

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

Discussion

The analysis area for the public services standard is the area within the site boundary and 30 miles from the site boundary.

Sewers and Sewage Treatment: The facility will be connected to the Port of Morrow wastewater collection system. Wastewater from toilets and sinks will be piped from the facility by means of the Port collection system to a pressure main that connects the system with the City of Boardman collection and treatment system. The Boardman treatment plant has recently undergone upgrades to accommodate development within the City and the Port.

Industrial wastewater will be collected in a separate system owned and operated by the Port of Morrow. Industrial wastewater is dispersed on Port-owned land. The Port's existing industrial wastewater permit with ODEQ is adequate, but because of the projected demand for industrial wastewater collection and treatment as the Port adds tenants, the Port is working with ODEQ to modify its permit and increase its capacity. Consequently, the Port may be required to purchase additional land for land application.

The nearest alternative system serves the City of Boardman, about 0.5 miles from the facility site. The City has recently completed extensive upgrades to its existing system to accommodate projected Port and City needs. Both the Port of Morrow and City of Boardman have confirmed that with the existing and proposed upgrades, their wastewater collection and treatment systems would have the capacity to accommodate the facility and projected growth within Boardman, and that the facility would not be expected to adversely affect those systems.

The Council finds that construction and operation of the facility would not result in any significant adverse impact on the ability of sewage collection and treatment systems within the analysis area to serve their other users.

Water: The facility will connect to the existing Port of Morrow water system, which is adequate to meet current demand, including the facility. The Port currently draws its water from its own wells and supplies water to facilities within the Port boundaries. The Port plans to increase capacity to provide up to 13,000 gallons per minute by using existing wells and constructing a Ranney system under the Columbia River. In addition, the Port would install a new 30-inch main supply line to serve Port industries. The Port estimates that the proposed improvements would meet the demands of the Port at full build out. Based on the existing and

proposed capacity improvements, no adverse impacts to the local water system are expected to occur as a result of construction or operation of the facility.

The Council finds that construction and operation of the facility would not result in any significant adverse impact on the ability of the water system within the analysis area to serve other users.

Storm Water: The Port of Morrow does not provide storm water collection, but requires businesses located on Port property to manage storm water on site, typically using catch basins and filter strips. PEC has obtained a NPDES Storm Water Discharge General Permit #1200-C for construction activities. During operation of the facility, PEC would address storm water with on-site vegetation filter strips and infiltration.

The Council finds that construction and operation of the facility would not result in any significant adverse storm water impacts.

Solid Waste Management: The Port of Morrow contracts with Sanitary Disposal and Recycling to provide refuse and recycling collection. Hermiston Sanitation and Recycling would provide drop boxes during construction and regular pick up during operation of the facility. Garbage is generally transported to Finley Buttes, a private landfill, or the Columbia Ridge Recycling and Landfill site near Arlington. Sanitary Disposal and Recycling does not provide hazardous waste pickup, but hazardous waste disposal is available at Chemical Waste Management of the Northwest, a facility located adjacent to the Columbia Ridge facility.

Temporary and permanent population increases resulting from construction and operation of the facility will be small compared to the population of the affected communities. Sanitary Disposal and Recycling already provides services for all of the Port and Morrow County and has adequate capacity to accommodate constructed-related debris and service to the operating facility. The facility would not adversely affect the ability of Hermiston Sanitation and Recycling to provide solid waste collection services. Furthermore, the facility would not adversely affect the ability of providers in adjacent communities to provide refuse and recycling services, because those providers provide such services only in the communities' city limits. Area landfills are not expected to reach capacity for the foreseeable future.

The Council finds that construction and operation of the facility would not have a significant adverse impact on the capacity of solid waste facilities in the analysis area.

Housing: PEC expects about 100 temporary construction workers would be needed for the duration of the construction effort and that 80 percent of the construction workforce would come from communities within the analysis area. There are several potential temporary housing options within the analysis area, including motels in Boardman, Arlington and Hermiston. Accordingly, construction of the facility is not expected to cause any adverse impact to temporary housing in the analysis area.

The demand for permanent housing in the analysis area is not expected to increase significantly during operation of the facility. The facility would employ about 30 to 35 full-time

and part-time employees. Only 5 new employees are expected to move to area, with the remainder hired locally. Accordingly, operation of the facility is not expected to cause any adverse impact to permanent housing in the analysis area.

The Council finds that construction and operation of the facility would not have a significant adverse impact on housing in the analysis area.

Traffic Safety: Construction related traffic could cause short-term delays when trucks deliver equipment and preassembled portions of the facility to the facility site. Those deliveries and shipments would be by means of public highways and roads, and delays will be temporary and are not expected to have an adverse impact on highways and public roads in the analysis area.

Under the worst-case scenario (assuming all corn deliveries and ethanol product shipments were by truck), operation of the facility is anticipated to generate about 284 trips per day, seven days per week. Because the number of trips would be less than 400 trips per day, Morrow County would not require PEC to complete a traffic impact assessment. Roads within the facility area are lightly traveled and would be able to accommodate the increased traffic. Increased traffic is not expected to have an adverse impact on highways and public roads in the analysis area. Moreover, PEC chose the site specifically for its existing rail facility and for the efforts by the Port of Morrow and Tidewater to construct a general barge loading facility. Considerable permitting work by Tidewater has already been done towards construction of the loading facility. And, PEC must ship at least 90% of its output by barge and rail unless it has a site certificate. For these reasons, it is unlikely that this worst-case scenario will occur.

The Council finds that construction and operation of the facility would not have a significant adverse impact on traffic safety in the analysis area.

Police Protection: The Morrow County Sheriff's Department has 15 full-time officers and provides police service for all of Morrow County, including the Port of Morrow and the facility site. The Gilliam and Umatilla County Sheriff's Departments employ 4 and 9 full-time officers, respectively. The Morrow, Gilliam and Umatilla Sheriff's Departments have all entered into agreements to provide backup services to one another, when needed.

The small population increase resulting from construction and operation of the facility would not have a significant adverse impact on local police services. In discussions with the Morrow County Sheriff's Department, PEC was advised that the Sheriff's Department had no concerns about the in-migrant construction workers or any need for increased patrols near the facility site during construction or operation. The facility would not have a significant adverse impact on police service in the analysis area.

The Council finds that construction and operation of the facility would not have a significant adverse impact on police protection services in the analysis area.

Fire Protection and Emergency Response: The facility site is located in the Boardman Rural Fire Department service area based in Boardman. The Fire Department provides fire

protection and has trained EMT volunteers, although it does not provide ambulance services. The Morrow County Health District provides ambulance service in the affected area.

PEC agreed to pay for 8 fire department personnel to attend a one-week training seminar designed to educate staff in the proper procedures to respond to a fire at a facility that handles highly flammable materials. Other fire department staff will be trained as part of agreements with other proposed industrial facilities that plan to locate at the Port of Morrow. In addition, the Fire Department has reviewed and approved the CEP fire suppression system and location of fire hydrants.

Interviews conducted by PEC with the Boardman Rural Fire Department and the Morrow County Health District indicated that the facility would not affect their ability to provide fire protection or ambulance service for their service areas.

The Boardman Rural Fire Department commented by telephone call to Adam Bless of the Oregon Department of Energy. It stated that, given the number of ethanol facilities proposed for the Port of Morrow, the barge loading dock could see considerable throughput. The Fire Department stated that they would prefer the various ethanol developers to pipe product to the loading dock through a common pipe, rather than a number of individual pipes.

The fire department's comment is appreciated. However, three of the four ethanol facilities proposed for at the Port are exempt from EFSC jurisdiction. Indeed, if PEC were able to ship its entire product by barge and rail, it would also be exempt. The Council cannot compel the exempt facilities to meet conditions. The Port of Morrow and the Fire District are encouraged to work with the exempt developers regarding a common ethanol pipeline. The Council will entertain an amendment request from Pacific Ethanol, should such an arrangement with the other developers be reached.

The Council finds that construction and operation of the facility would not have a significant adverse impact on fire protection and emergency response services in the analysis area.

Health Care: Good Shepherd Community Hospital is the only hospital in the analysis area. The facility provides emergency and surgical care and can accommodate most types of injuries, although cardiac emergencies are stabilized at the hospital and then patients are transported to Saint Anthony's in Pendleton. St. Anthony's is a full service facility that has a larger and more expansive capability than Good Shepherd. If an accident were to occur at the facility site, ambulance service provided by Morrow County Health District would transport patients to Good Shepherd. Evacuation by helicopter is also available.

The Mid-Columbia Medical Center, located in The Dalles, is a regional full-service medical facility that would treat patients from Good Shepherd or Saint Anthony's if those hospitals did not have the capability to treat a particular type of injury. The Center provides emergency services as well as surgery.

The facility would not adversely affect medical services in the analysis area or the region. Good Shepherd and Saint Anthony's would probably be able to provide necessary services, and Mid-Columbia Valley Medical Center would be available in the event more specialized services were required.

The Council finds that construction and operation of the facility would not have a significant adverse impact on medical services in the analysis area.

Schools: The Morrow County School District serves all of Morrow County. The school district operates 3 junior/senior high schools (grades 7 to 12) and 6 elementary schools, serving about 2,300 students. The number of students in the school district is increasing at about 3 percent annually (about 50 students per year). The school district recently successfully passed a bond to construct new schools and add capacity to meet future demand. Currently, the Morrow County School District has adequate capacity to accommodate students.

PEC expects there would be no adverse impact to local schools resulting from construction or operation of the facility. No demand on school facilities is expected from construction of the facility, because the small portion of the construction work force that might temporarily live in the area is likely to include few, if any, families. The number of in-migrant operational staff is expected to be small, creating few new households with school-age children. PEC conducted interviews with local school districts and was assured that the small number of potential new students would not have a significant adverse impact on the school districts, and all districts would be able to accommodate students with their existing capacity.

The Council finds that construction and operation of the facility would not have a significant adverse impact on schools in the analysis area.

Conclusion

The Council finds that, subject to the conditions stated in this final order, PEC meets the public services standard, OAR 345-022-0110.

N. WASTE MINIMIZATION, OAR 345-022-0120

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

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

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

Discussion

PEC proposes to implement waste minimization and recycling measures during construction, operation and retirement of the facility.

Solid Waste

Construction. PEC will generate a variety of non-hazardous, inert construction wastes during construction of the facility. The major solid waste types will be concrete and asphalt waste, wood waste, and steel scrap. Some additional wastes could include erosion control materials, such as straw bales and silt fencing, and packaging materials from plant parts and other electrical equipment.

Generation of construction wastes will be minimized through the use of detailed estimates of materials needed and efficient construction practices. Wastes generated during construction will be recycled, when feasible. Steel scrap will be collected and transported to a recycling facility. Wood waste will be recycled to the extent feasible. Concrete waste will be used as fill onsite or at another site or, if no reuse option is available, removed to the local landfill. Packaging wastes, including paper and cardboard, will be separated and recycled. Non-recyclable wastes will be collected and transported to a local landfill.

Operation. During operation, the facility would generate office waste, such as paper and food packaging and scraps. In addition, it would generate some minor and potentially hazardous wastes, including lubricants, coolants, or similar wastes related to gear lubrication and other maintenance. The only other source of waste would be incidental waste from repair and replacement of equipment.

Minimal waste will be generated during operation of the facility. Office waste would be collected and recycled, when feasible. Non-recyclable wastes would be collected and transported to a local landfill, most likely the Finley Buttes Landfill located near Boardman.

Retirement. Measures for reducing, reusing and recycling solid waste upon retirement would be addressed as part of the retirement plan that the Council must approve before retirement of the facility [Condition (IV.C.2)].

Wastewater

Construction. During construction of the facility, PEC will provide portable toilets to serve on-site sewage handling. The toilets will be pumped and cleaned regularly by the construction contractor. PEC would manage storm water in conformance with its NPDES Storm Water Discharge General Permit #1200-C. Wastewater will be generated from washdown of equipment during earthwork and construction phases. Concrete trucks could also be cleaned after concrete loads had been emptied. Washdown will be the responsibility of the contractor and will probably occur at a contractor-owned batch plant.

Operation. During operation of the facility, industrial wastewater would be treated at the Port of Morrow industrial wastewater treatment facility. Sewage from toilets and sinks would be treated at the Boardman wastewater treatment plant in Boardman.

Retirement. Measures for controlling wastewater upon retirement would be addressed as part of the retirement plan that the Council must approve before retirement of the facility [Condition (IV.C.2)].

Impact on Surrounding and Adjacent Areas

Due to the small quantity and inert nature of most of the potential waste, there is no anticipated adverse impact on surrounding or adjacent areas from wastes generated at the facility during construction, operation, or retirement. Most waste would be removed from the site and reused, recycled or transported to an appropriate landfill or hazardous waste disposal facility. Any waste disposed of on site, such as concrete waste, will be inert and will be disposed of in a manner consistent with applicable regulations and in a manner protective of human health and the environment.

Conclusion

The Council finds that, subject to the conditions stated in this final order, PEC meets the waste minimization standard, OAR 345-022-0120.

O. CO_2 STANDARD FOR NONGENERATING ENERGY FACILITIES, OAR 345-024-0620

*To issue a site certificate for a nongnerating energy facility that emits carbon dioxide, the Council must find that the net carbon dioxide emissions rate of the proposed facility does not exceed 0.504 pounds of carbon dioxide per horsepower hour. The Council shall determine whether the carbon dioxide emissions standard is met as follows****

Discussion

For informational purposes, PEC reported that natural gas consumed at design capacity would be an average of 3 million cubic feet per day. Non-fuel burning carbon dioxide releases would occur as part of the fermentation process. At design capacity, carbon dioxide released as part of the fermentation process would be about 138,390 tons per year. The Council does not have a carbon dioxide standard for ethanol production facilities.

Conclusion

The Council finds that there is no applicable carbon dioxide standard for ethanol facilities.

V. OTHER APPLICABLE REGULATORY REQUIREMENTS

A. REQUIREMENTS UNDER COUNCIL JURISDICTION

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

Applicable Oregon statutes and administrative rules identified in the Project Order that are not addressed in any of the Council's standards are discussed in this section of the final order. These include DEQ's noise control regulations and Water Pollution Control Facilities permit requirements, the Department of State Lands' ("DSL") Removal/Fill Permit regulations for

disturbance to wetlands, and the Council's statutory authority to consider protection of the public health and safety.

1. Noise

The Requirement. The ODEQ *Noise Control Regulations for Industry and Commerce* apply to the noise generated by the CEP. Under the ODEQ noise control regulations, the CEP would be considered a "new industrial or commercial noise source" because construction and operation of the energy facility began after January 1, 1975 (OAR 340-035-0015(33)). In addition, the site for the new noise source would be considered a "previously unused industrial or commercial site" under the ODEQ noise regulation because it has not been used by an industrial or commercial source in the 20 years prior to the use by the CEP [OAR 340-035-0015 (47)]. The applicable regulation requires that:

> *"No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L_{10} or L_{50}, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point..OAR 340-035-0035(1)(b)(B)(i)***."*

Discussion

The Council applies the above ODEQ noise regulation to evaluate the noise that will radiate from the CEP. The ethanol production facility site lies within the Port of Morrow's Boardman Industrial Park and it is zoned for industrial uses but the site itself has never been used by an industrial or commercial noise source during the 20 years prior to the proposed date of operation. Therefore, under the ODEQ noise regulation, the site is considered a "previously unused industrial or commercial site".

The ODEQ noise regulation has two criteria that apply to a new noise source located on a "previously unused industrial or commercial site." The first criterion, presented in Table 8 of the ODEQ noise regulation, establishes the maximum hourly statistical noise levels that may radiate from a new noise source to a "noise sensitive receiver" such as a residence, church, school, or hospital. The criterion limits the maximum hourly L_{50}, L_{10} and L_{01} noise levels radiating to a noise sensitive receiver from a commercial or industrial noise source to 55, 60 and 75 dBA respectively between 7 a.m. and 10 p.m. and 50, 55, and 60 dBA respectively between 10 p.m. and 7 a.m. The hourly L_{50}, L_{10} and L_{01} noise levels are defined as the noise level equaled or exceeded 50 percent, 10 percent and 1 percent of the hour, respectively. The criterion is often referred to as the "maximum allowable noise level" criterion.

The second criterion requires that the new noise source not increase the ambient hourly L_{10} or L_{50} statistical noise levels at a noise sensitive receiver by more than 10 dBA. This criterion is intended to prevent large increases in background noise levels at a receiver, and it is often referred to as the "ambient noise degradation rule."

Because the ethanol production facility could operate continuously over a 24-hour period and because ODEQ noise regulations are generally more restrictive during nighttime hours than during daytime hours, noise from the facility would tend to have a greater potential of exceeding the noise regulation limits during nighttime hours than during daytime hours. However, to ensure the noise impacts were considered during all hours, PEC conducted ambient noise measurements at noise sensitive receivers over four consecutive, 24-hour periods (July 15 through July 19, 2006).

PEC measured the ambient noise at only the residence nearest the facility site because that residence is located approximately nine tenths of a mile (4940 feet) from the site and there are no other residences within approximately 1.5 miles of the facility. The next nearest residence is close to I-84 and it is expected that the ambient noise from I-84 traffic would be louder than the noise produced by the facility.

PEC did not determine the source of the ambient noise at the residence nearest the facility site, but, based on the location of the residence relative to I-84, it is expected that the ambient noise during the quietest hours is influenced mainly by traffic on I-84. Noise generated by train pass-bys on the Union Pacific Railroad south of the facility site could influence the hourly L_{10} noise levels during many hours due to the number of trains that pass through the area.

The purpose of the ambient noise study is to determine if the noise generated by the ethanol production facility will be regulated by the ODEQ "ambient noise degradation rule" in conjunction with the "maximum allowable noise rule" or just by the "maximum allowable noise rule". In general, PEC's ambient noise data show that ODEQ's "ambient noise degradation rule" limits will be more restrictive than the "maximum allowable noise rule" limits during some hours. Therefore, the noise generated by the facility will be regulated by both rules.

In establishing the noise criterion for the facility, PEC utilized the ambient noise levels measured during the quietest hour of the four-day measurement period. PEC found an hourly L_{50} noise level of 38 dBA during one of the quietest hours of the four-day measurement and an hourly L_{10} noise level 40.0 dBA.

Because the noise radiating from the facility will tend to be relatively constant throughout an hour, and because the hourly L_{50} noise criterion is lower than the hourly L_{10} noise criterion, the hourly L_{50} noise criterion would be the more stringent criterion of the two. Therefore, PEC predicted the hourly L_{50} noise level that would radiate from the facility and compared the results of that prediction to the noise criterion found using the data associated with the quietest hour of the four-day measurement period.

The major noise sources at the facility would include grain grinders, distillation columns, cooling towers and boiler equipment. Sound level data used in predicting the amount of the facility-generated noise that will reach the nearest residence were derived from measurements of noise radiating from similar equipment used at the Front Range Energy facility in Windsor, Colorado. Both near-field and far-field noise measurements were made to help quantify the noise radiating from the facility at the Front Range Energy facility.

According to PEC's noise study report, an initial screening analysis using the Front Range Energy facility measurements indicated the hourly L_{50} noise level at the nearest residence would be less than 45 dBA. Those results showed, the noise level at the nearest residence would be less than the 48-dBA ambient degradation noise rule limit established by the ambient noise study and well below the maximum allowable noise rule nighttime limit of 50 dBA. However, to further refine the analysis, PEC utilized the Cadna-A noise modeling program and the near-field data obtained at the Front Range Energy facility and predicted the "worst case" hourly L_{50} noise level expected at the residence. In addition, PEC predicted the "worst case" L_{50} noise level that could be expected at the entry point to the Columbia River Heritage Trail which is located approximately one mile from the facility even though that site is not considered a noise sensitive receiver under the ODEQ noise regulation. Through the analysis, the applicant predicted the loudest hour L_{50} noise level at the nearest residence would be 43 dBA and the loudest hour L_{50} noise level at the Columbia River Heritage Trail entry point would be 42 dBA.

ODOE's noise consultant, Mr. Kerrie Standlee of Daly-Standlee & Associates, Inc., reviewed the analysis made by PEC and concluded that the worst-case hourly L_{50} noise level at the nearest residence and at the Columbia Heritage Trail entry point could be approximately 2 dB higher than that presented in the noise study report due to the contribution of noise from the distillation columns and the boiler plant. However, Mr. Standlee agreed that, even with the higher predicted noise levels, the noise predicted to radiate from the CEP would be in compliance with the ODEQ noise regulations. Therefore, the data presented in the application by PEC demonstrates the noise generated by the facility would be in compliance with the ODEQ noise regulation's hourly L_{50} limits at all noise sensitive receivers without the use of any special noise mitigation measures.

As noted above, the noise radiating from the facility generally would be relatively constant during an hour. As a result, the hourly L_{01}, the hourly L_{10} and the hourly L_{50} noise levels radiating from the facility would be about the same. Thus, since the noise radiating from the facility would be in compliance with the hourly L_{50} criterion, ODOE can find that the hourly L_{10} and L_{01} noise levels radiating from the facility also would be likely to comply with the ODEQ regulation. Therefore, ODOE the Council finds that PEC would comply with the hourly L_{50}, L_{10} and L_{01} noise limits at all residences located around the facility.

Construction of the facility should produce noise levels similar to those found at any large construction project. Construction of the facility would involve the operation of construction equipment, including light and heavy trucks, backhoes, bulldozers, graders, cranes, air compressors, welding machines, and power hand tools. The ODEQ noise standard exempts noise that originates from construction activities.

Conclusion

The Council finds that PEC can meet the ODEQ noise standard, OAR 340-035-0035(1)(b)(B)(i).

2. Wetlands

The Requirement. The Council does not have a specific standard for wetlands. However, pursuant to OAR 345-021-0010(1)(j), PEC must submit specific information about the

proposed facility's "significant potential impacts" on wetlands within state jurisdiction under ORS Chapter 196. The Oregon Removal-Fill Law (ORS 196.800 through 990) and regulations adopted by the Oregon Department of State Lands ("DSL") (OAR 141-085-0005 through 141-085-0660) apply to the proposed facility.

The construction and future operation of the facility and all related or supporting facilities is subject to the Removal-Fill Law if 50 cubic yards or more of material is removed, filled or altered within any "waters of the state" or if any amount of material is filled or altered in Essential Indigenous Anadromous Salmonid Habitat. Under the Removal-Fill Law, "waters of the state" includes wetlands (defined in OAR 141-085-0010), within the wetland boundary delineated in accordance with OAR 141-090-0005 to 0055, and rivers, intermittent and perennial streams, lakes, ponds and all other bodies of water to the ordinary high water line, or absent readily identifiable field indicators, the bankfull stage. Pursuant to OAR 345-021-0010(1)(j)(D), the Council must determine that all required fill and removal permits of the DSL can be issued to the proposed facility in compliance with ORS 196.800 *et seq.*

Discussion

The analysis area for wetlands includes the energy facility site and all related or supporting facility sites. David Evans and Associates, Inc., conducted a wetland determination and found no wetlands within the analysis area. The Columbia River is a jurisdictional water of the state and the United States. The jurisdictional boundary extends to the ordinary high water line, which is located at about elevation 268 feet above mean sea level.

No impacts to wetlands or other waters of the state will occur as a result of the facility. The facility would use existing facilities along the Columbia River to avoid removal and fill activities within the river.

Conclusion

The Council finds that PEC does not require a DSL removal/fill permit pursuant to DSL regulations (OAR 141-085-0005 through 141-085-0660).

3. Public Health and Safety

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

Discussion

The site certificate will contain conditions for the protection of the public health and safety with respect to several Council standards. However, certain public health and safety issues that are not otherwise addressed in Council standards warrant special attention: (1) the potential for cooling tower fogging and icing to affect driving conditions on public roads; (2) the certificate holder's coordination with the Oregon Public Utility Commission ("PUC") to ensure that the certificate holder designs and builds the electrical transmission line and natural gas

pipeline in accordance with the appropriate codes and standards; and (3) pipeline safety monitoring pursuant to OAR 345-027-0020(3)(b). These three issues are discussed below.

Cooling Tower Fogging and Icing. The CEP cooling tower system is about 20 percent of the size of the nearby Coyote Springs system. Most drift would settle out within 200 meters (656 feet) of the cooling tower, and public roads in the vicinity of the CEP are generally at least 1,000 feet from the cooling tower. Operation of the facility would not be expected to adversely affect driving conditions on public roads.

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

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

To promote coordination between PEC and the OPUC in regard to the design and specifications of electrical transmission lines and natural gas pipelines, the Council adopts the following condition in the site certificate to ensure timely consultation:

(V.A.1) **The certificate holder shall consult with the Oregon Public Utility Commission staff to ensure that its designs and specifications for the electrical transmission line and natural gas pipeline are consistent with applicable codes and standards.**

Natural Gas Pipeline Safety. OAR 345-027-0023 provides conditions that the Council may include in the site certificate, as appropriate.

To promote safe and reliable design, construction and operation of the proposed natural gas pipeline, the Council adopts the following condition in the site certificate:

(V.A.2) **With respect to the related or supporting natural gas pipeline, the certificate holder shall design, construct and operate the pipeline in accordance with the requirements of the U.S. Department of Transportation as set forth in Title 49, Code of Federal Regulations, Part 192 and the certificate holder shall develop and implement a program using the best available practical technology to monitor the proposed pipeline to ensure protection of public health and safety.**

Conclusion

The Council finds that, subject to the conditions stated in this final order, the siting, construction and operation of the energy facility is consistent with protection of the public health and safety, pursuant to ORS 469.310.

B. REQUIREMENTS THAT ARE NOT UNDER COUNCIL JURISDICTION

1. Federally-Delegated Programs

The Council does not have jurisdiction for determining compliance with those statutes and rules for which the permitting decision has been delegated by the federal government to a state agency other than the Council. However, pursuant to ORS 469.505(1):

> "[a]ny permit application for which the permitting decision has been delegated by the federal government to a state agency other than the Energy Facility Siting Council shall be reviewed, whenever feasible, simultaneously with the Council's review of the site certificate application. Any hearings required on such permit applications shall be consolidated, whenever feasible, with hearings under ORS 469.300 to 469.563 and 469.590 to 469.619."

The Council concludes that the following programs are not within the Council's jurisdiction because they are federally delegated programs:

(1) The Air Contaminant Discharge Permit ("ACDP") program administered by DEQ, which includes the federally delegated new source review requirements of the Clean Air Act and the Prevention of Significant Deterioration program. This authority is in ORS Chapter 468A; OAR Chapter 340, Divisions 20, 21, 22, 25, and 31.

(2) The National Pollutant Discharge Elimination System permit program administered by DEQ - Water Quality Division, which regulates and permits storm water runoff and discharges to public waters; and

(3) The program regulating the design, operation, monitoring and removal of underground storage tanks that contain certain toxic and hazardous materials, including petroleum products, administered by DEQ, under ORS Chapter 466; OAR 340, Division 150.

2. Requirements That Do Not Relate to Siting

Under ORS 469.401(4), the Council does not have jurisdiction for determining compliance with state and local government programs that address design-specific construction or operating standards and practices that do not relate to siting. However, the Council may rely on the determinations of compliance and the conditions in the permits issued by these state agencies and local governments in making its determinations as to whether the standards and requirements under the Council's jurisdiction are met.

The Council concludes that, for the proposed facility, the following state and local government programs are not within the Council's jurisdiction because the programs address design-specific construction or operating standards and practices not related to siting:

(1) The Oil Spill Contingency and Prevention Plan program, administered by DEQ Water Quality Division under ORS 468B and OAR Chapter 340, Division 47, which regulates the transport, storage, handling, and spill control and prevention of petroleum products;

(2) Regulations of building, structure design and construction practices by the Oregon Building Codes Division under ORS Chapters 447, 455, 460, 476, 479, and 480; OAR Chapter 918, Divisions 225, 290, 301, 302, 400, 440, 460, 750, 770, and 780;

(3) Various programs addressing fire protection and fire safety and the storage, use, handling, and emergency response for hazardous materials and community right to know laws for hazardous materials, administered by the Oregon State Fire Marshal's Office, under ORS Chapters 453, 476, and 480; OAR Chapter 837, Divisions 40 and 90;

(4) The program addressing design and safety standards for natural gas pipelines and electric transmission lines administered by the Oregon Public Utilities Commission, Safety Section under ORS Chapter 757; OAR Chapter 860, Division 24;

(5) Regulations on the size and weight of truck loads on state and federal highways administered by the Oregon Department of Transportation under ORS Chapter 818; OAR Chapter 743, Division 82;

(6) The program regulating the possession, use and transfer of radioactive materials administered by the Oregon State Health Division (OSHD) under ORS Chapter 453; OAR Chapter 333, Divisions 100-119;

(7) Regulations of domestic water supply systems regarding potability administered by OSHD under ORS Chapter 448;

(8) Permits required from ODOT to place a structure within, or to cross a state highway right-of-way.

(9) Building permits required and administered by Morrow County.

(10) Federal Aviation Administration Form 7460-1, Notice of Proposed Construction or Alternation, concerning the impact of the height of the structure on navigable airspace.

VI. CONDITIONS REQUIRED OR RECOMMENDED BY COUNCIL RULES

The following conditions that the Council includes in the site certificate are specifically required or recommended by OAR 345, Divisions 24, 26 and 27, to address project and site-specific conditions and requirements. These conditions shall apply and should be read together with the additional specific conditions included in Sections D and E of this final order to ensure compliance with the siting standards of OAR 345, Divisions 22, 23 and 24, and to protect the public health and safety.

In addition to all other conditions stated in this final order, the certificate holder is subject to all conditions and requirements contained in the rules of the Council and local ordinances and state law in effect on the date the site certificate is executed, except: (1) that upon a clear showing of a significant threat to the public health, safety or the environment that requires application of later-adopted laws or rules, the Council may require compliance with such later-adopted laws or rules; and, (2) that the site certificate shall provide for facility compliance with applicable state and federal laws adopted in the future to the extent that such compliance is required under the respective state agency statutes and rules.. ORS 469.401(2).

ODOE recognizes that many specific tasks related to the design, construction, operation and retirement of the facility would be undertaken by the certificate holder's agents or contractors. However, the certificate holder shall be responsible for compliance with all provisions of the site certificate.

A. MANDATORY CONDITIONS IN SITE CERTIFICATES

OAR 345-027-0020 details mandatory conditions that the Council must impose in every site certificate. This final order imposes several of the mandatory conditions within the discussion of specific conditions to which they relate. However, some mandatory conditions are not otherwise addressed in this final order. Therefore, the Council adopts the following conditions in the site certificate.

(VI.A.1) **The Council shall not change the conditions of the site certificate except as provided for in OAR 345, Division 27.**

(VI.A.2) **The certificate holder shall submit a legal description of the site to the Department of Energy within 90 days after beginning operation of the facility. The legal description required by this rule means a description of metes and bounds or a description of the site by reference to a map and geographic data that clearly and specifically identifies the outer boundaries that contain all parts of the facility.**

(VI.A.3) **The certificate holder shall design, construct, operate, and retire the facility:**

(a) Substantially as described in the site certificate;

(b) In compliance with the requirements of ORS Chapter 469, applicable Council rules, and applicable state and local laws, rules and ordinances in effect at the time the site certificate is issued; and

(c) In compliance with all applicable permit requirements of other state agencies.

B. OTHER CONDITIONS BY RULE

This section contains recommended conditions based on the Council's rules. In some cases, the rules propose conditions; in other cases ODOE recommended the conditions, based on the Council's rules, to make explicit certain obligations of the certificate holder.

Incident Reports. Pursuant to OAR 345-027-0023(2), the Council adopts the following condition in the site certificate:

(VI.B.1) With respect to the related or supporting natural gas pipeline, the certificate holder shall submit to the Department copies of all incident reports involving the pipeline required under 49 CFR §191.15.

Rights-of-Way. Pursuant to OAR 345-027-0023(6), the Council adopts the following condition in the site certificate:

(VI.B.2) Before beginning operation of the facility, the certificate holder shall submit to the Department a legal description of the permanent right-of-way where the applicant has built a pipeline or transmission line within an approved corridor. The site of the pipeline or transmission line subject to the site certificate is the area within the permanent right-of-way.

Monitoring Programs. Pursuant to OAR 345-027-0028, the Council adopts the following condition in the site certificate:

(VI.B.3) If the certificate holder becomes aware of a significant environmental change or impact attributable to the facility, the certificate holder shall, as soon as possible, submit a written report to the Department describing the impact on the facility and any affected site certificate conditions.

Compliance Plans. Pursuant to OAR 345-026-0048, the Council adopts the following condition in the site certificate:

(VI.B.4) Within 30 days after the effective date of the site certificate, the certificate holder shall implement a plan that verifies compliance with all site certificate terms and conditions and applicable statutes and rules and shall submit a copy of the plan to the Department. The certificate holder shall document the compliance plan and maintain it for inspection by the Department or the Council.

Reporting. Pursuant to OAR 345-026-0080, the Council adopts the following conditions in the site certificate:

(VI.B.5) **Within 30 days after the effective date of the site certificate, and every six months thereafter during construction of the facility and related or supporting facilities, the certificate holder shall submit a semi-annual construction progress report to the Department. In each construction progress report, the certificate holder shall describe any significant changes to major milestones for construction. When the reporting date coincides, the certificate holder may include the construction progress report within the annual report described in Condition (VI.B.6) below.**

(VI.B.6) **By April 30 of each year after beginning construction, the certificate holder shall submit an annual report to the Department addressing the subjects listed in OAR 345-026-0080(2). The Council Secretary and the certificate holder may, by mutual agreement, change the reporting date.**

(VI.B.7) **To the extent that information required by OAR 345-026-0080(2) is contained in reports the certificate holder submits to other state, federal or local agencies, the certificate holder may submit excerpts from such other reports to satisfy this condition. The Council reserves the right to request full copies of such excerpted reports.**

Correspondence with Other State or Federal Agencies. Pursuant to OAR 345-026-0105, the Council adopts the following condition in the site certificate:

(VI.B.8) **The certificate holder and the Department shall exchange copies of all correspondence or summaries of correspondence related to compliance with statutes, rules and local ordinances on which the Council determined compliance, except for material withheld from public disclosure under state or federal law or under Council rules. The certificate holder may submit abstracts of reports in place of full reports; however, the certificate holder shall provide full copies of abstracted reports and any summarized correspondence at the request of the Department.**

Notification of Incidents. Pursuant to OAR 345-026-0170, the Council adopts the following condition in the site certificate:

(VI.B.9) **The certificate holder shall notify the Department within 72 hours of any occurrence involving the facility if:**

(a) **There is an attempt by anyone to interfere with its safe operation;**

(b) **A natural event such as an earthquake, flood, tsunami or tornado, or a human-caused event such as a fire or explosion,**

affects or threatens to affect the public health and safety or the environment; or,

(c) There is any fatal injury at the facility.

VII. GENERAL CONDITIONS

The following general conditions are based on the representations by PEC in the ASC that are not otherwise addressed or relate to procedural matters not otherwise addressed in proposed conditions. The Council adopts the following conditions in the site certificate:

(VII.1) The general arrangement of the Columbia Ethanol Project shall be substantially as shown in the ASC.

(VII.2) The certificate holder shall ensure that related or supporting facilities are constructed in the corridors described in the ASC and in the manner described in the ASC.

Successors and Assigns. Ownership of the site certificate or facility may change over time. The Council adopts the following condition in the site certificate:

(VII.3) Before any transfer of ownership of the facility or ownership of the site certificate holder, the certificate holder shall inform the Department of the proposed new owners. The requirements of OAR 345-027-0100 shall apply to any transfer of ownership that requires a transfer of the site certificate.

Severability and Construction. The Council adopts the following condition in the site certificate:

(VII.4) If any provision of this site certificate is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the site certificate did not contain the particular provision held to be invalid. In the event of a conflict between the conditions contained in the site certificate and the Council's order, the conditions contained in this site certificate shall control.

Governing Law and Forum. The Council adopts the following conditions in the site certificate:

(VII.5) The laws of the State of Oregon shall govern this site certificate.

(VII.6) Any litigation or arbitration arising out of this agreement shall be conducted in an appropriate forum in Oregon.

VIII. GENERAL CONCLUSION

The Council makes the following findings:

A. The Columbia Ethanol Project complies with the requirements of the Oregon Energy Facility Siting statutes, ORS 469.300 to 469.520.

B. The Columbia Ethanol Project complies with the standards adopted by the Council pursuant to ORS 469.501; and

C. The Columbia Ethanol Project complies with all other Oregon statutes and administrative rules identified in the project order as applicable to the issuance of a site certificate for the proposed facility.

The Council concludes that PEC meets these requirements and that it should issue a site certificate for the Columbia Ethanol Project.

IX. ORDER

Based on the above findings of fact, discussions and conclusions of law, the Council approves the Application for a Site Certificate for the Columbia Ethanol Project and issues the site certificate in the form of the "Site Certificate for the Columbia Ethanol Project." The site certificate for the Columbia Ethanol Project will be attached to this final order and incorporated by reference into this final order.

Issued on August 9, 2007

OREGON ENERGY FACILITY SITING COUNCIL

By: _____.
David Ripma
Chair, Oregon Energy Facility Siting Council

ATTACHMENTS

Attachment A: Habitat Mitigation Plan

NOTICE OF THE RIGHT TO APPEAL

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

ATTACHMENT A: HABITAT MITIGATION PLAN

DAVID EVANS
AND ASSOCIATES INC.

MEMORANDUM

DATE: March 30, 2007

TO: Steve Cherry, ODFW District Wildlife Biologist in Heppner

FROM: Phil Rickus

SUBJECT: **Habitat Mitigation Plan**

PROJECT: Columbia Ethanol Power Project

PROJECT NO: PEIN0000-0004

COPIES: Tom Koehler / Paul Koehler, Pacific Ethanol, Inc.,
Russ Morgan, ODFW;
Adam Bless, Oregon Department of Energy;

This memorandum describes the approach for mitigation for habitat impacts from the Columbia Ethanol Power Project (Project). The plan is based on personal communications between Oregon Department of Fish and Wildlife (ODFW) District Wildlife Biologist Steve Cherry and DEA Ecologist Phil Rickus in February and March, 2007. Columbia Pacific Ethanol, LLC will be the Certificate Holder (CH) for the project.

As described in the Application for Site Certificate (ASC), the project area is highly degraded and impacted historically by agriculture and other uses. Wildlife habitat within the project area is extremely limited and wildlife use of the site is expected to be limited to common, generalist species. Surveys were conducted to determine the acreage of impacted habitat classified into the various Fish and Wildlife Habitat Mitigation Policy categories, which are shown in Table 1 below.

Table 1: Impacts to Wildlife Habitat from the Columbia Ethanol Project

	IMPACTS (acres)	
	Temporary	**Permanent**
Category 5		
Grassland	7.3	6.7
Category 6		
Developed	3.4	2.8

Potential impacts to wildlife habitat include temporary and permanent habitat loss, habitat alteration, and disturbance during construction and operation. Temporary impacts are the construction-related impacts associated with the laydown areas, proposed ethanol pipeline, and the underground gas pipeline. These areas will be temporarily disturbed during construction and will be restored to pre-construction condition or better after the construction-related activities are complete.

The mitigation goal for Category 6 impacts is to minimize impacts. The mitigation goal for category 5 impacts is to provide a net benefit in habitat quantity or quality. As shown below, the proposed mitigation meets these goals.

As requested by ODFW (Cherry, pers. comm. 2007), the ODFW Coyote Springs Wildlife Area (CSWA) would be enhanced in coordination with the Refuge Manager (Figure 1). ODFW originally requested that 10 acres of degraded grassland habitat be restored as mitigation for these impacts. However, a discreet area of potential mitigation covering 23 acres was identified by the refuge manager. The CH will attempt to cover the entire 23 acres.

Mitigation Area Description and Procedures Summary

The 23-acre mitigation area consists of a small patch of disturbed grassland habitat between existing agricultural center pivot fields immediately north of I-84 (Figure 2). This area is dominated by non-native vegetation, and would require considerable preparation and maintenance to forestall the return of weeds to the project area.

Mitigation will proceed in phases, with the responsibility for separate phases split between ODFW and the CH. The first phase is to clear non-native species and weeds through a combination of spraying and mowing (ODFW). This will be followed by planting with desirable grasses and forbs (CH). This would provide cover and forage for wildlife within the CSWA. After the new vegetation is established, the quality of the habitat will be maintained for the life of the Project by ODFW unless it is determined by ODFW that there is a more beneficial use for the mitigation area. ODFW is also currently managing similar restoration projects within the wildlife area. The following steps provide greater detail concerning the process:

Seeding and Planting (CH)

Native-like grass and forbs will be planted in the fall or early winter, so that seeds can soak up moisture during the winter. The final mitigation seed mix will be determined in consultation with the CH and ODFW, but would likely include such native species as basin wildrye, bluebunch wheatgrass, Indian ricegrass, western needle-and-threadgrass, and sand dropseed. A rangeland drill would likely be used for seeding. The rangeland drill uses a series of smaller disks to create divots in the ground, and then plants the seeds in these divots with a seeding tube. The rangeland drill does not require that site be tilled or disked prior to seeding and can be used in terrain that is uneven. The drill will be used in several directions to mask the appearance of row crops and provide a more natural “bunchgrass” appearance over time.

Monitoring Procedures- Year 1 – 2 (CH)

CH responsibility for seeding includes only germination and survival of the grasses and forbs through the second growing season. Thereafter, ODFW will maintain the area to the desired criteria. Following the second growing season, DEA, in consultation with ODFW, shall evaluate the percentage of the mitigation site that has successfully germinated and survived.

Areas within the mitigation site are considered successfully revegetated when 50 percent of the planted seed has germinated and survived through the second growing season. This will be determined through random sampling of planted rows during a monitoring visit to be conducted after the second growing season. A brief report, to be provided to ODFW and The Oregon Department of Energy (The Department), will summarize methods and results.

If the site falls below the success criteria levels, the CH shall initiate corrective measures, and a second year of germination monitoring shall be initiated. After the second year, the Department may require reseeding or other corrective measures in those areas that do not meet the success criteria.

Monitoring Procedures- Year 2-5 (ODFW)

Once the 50% germination criterion has been met (regardless of which year that occurs) ODFW shall verify, during subsequent visits, that the plant communities within the mitigation site continue to meet the success criteria for revegetation.

If, after attaining the 50% germination standard, all or part of the habitat within the site falls below the mitigation guideline of providing a net gain in habitat quantity or quality, ODFW shall initiate corrective measures. The Department may require reseeding or other corrective measures in those areas that do not meet the success criteria. The Department may exclude small areas from the reseeding requirement where the potential for erosion is low and if total vegetative cover (of native and non-native species together) exceeds 25 percent.

Sincerely,

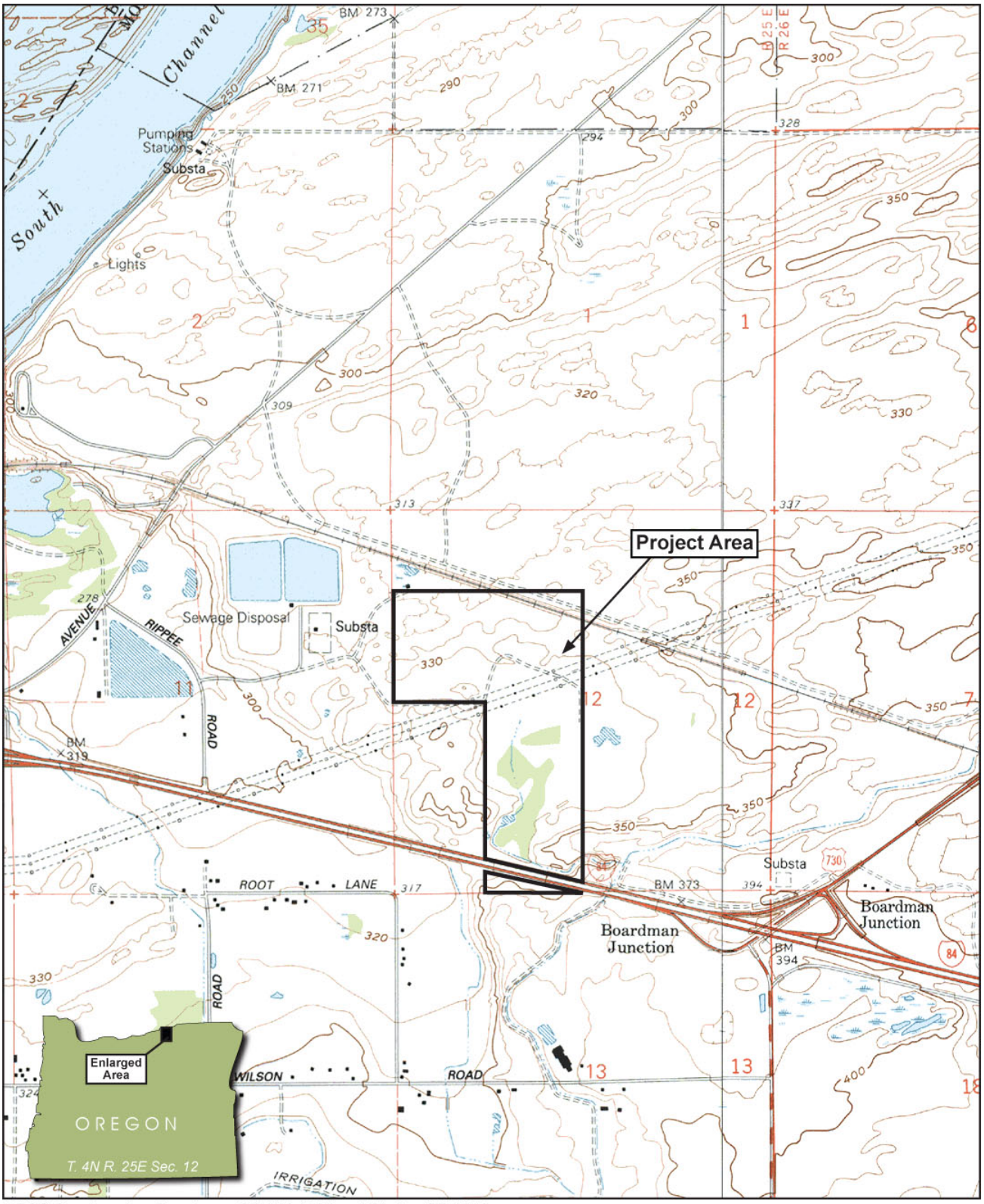
Philip Rickus

DEA Ecologist

Attachments/Enclosures:
Figure 1: Site Vicinity
Figure 2: CSWA Site Plan Aerial

Initials: prr

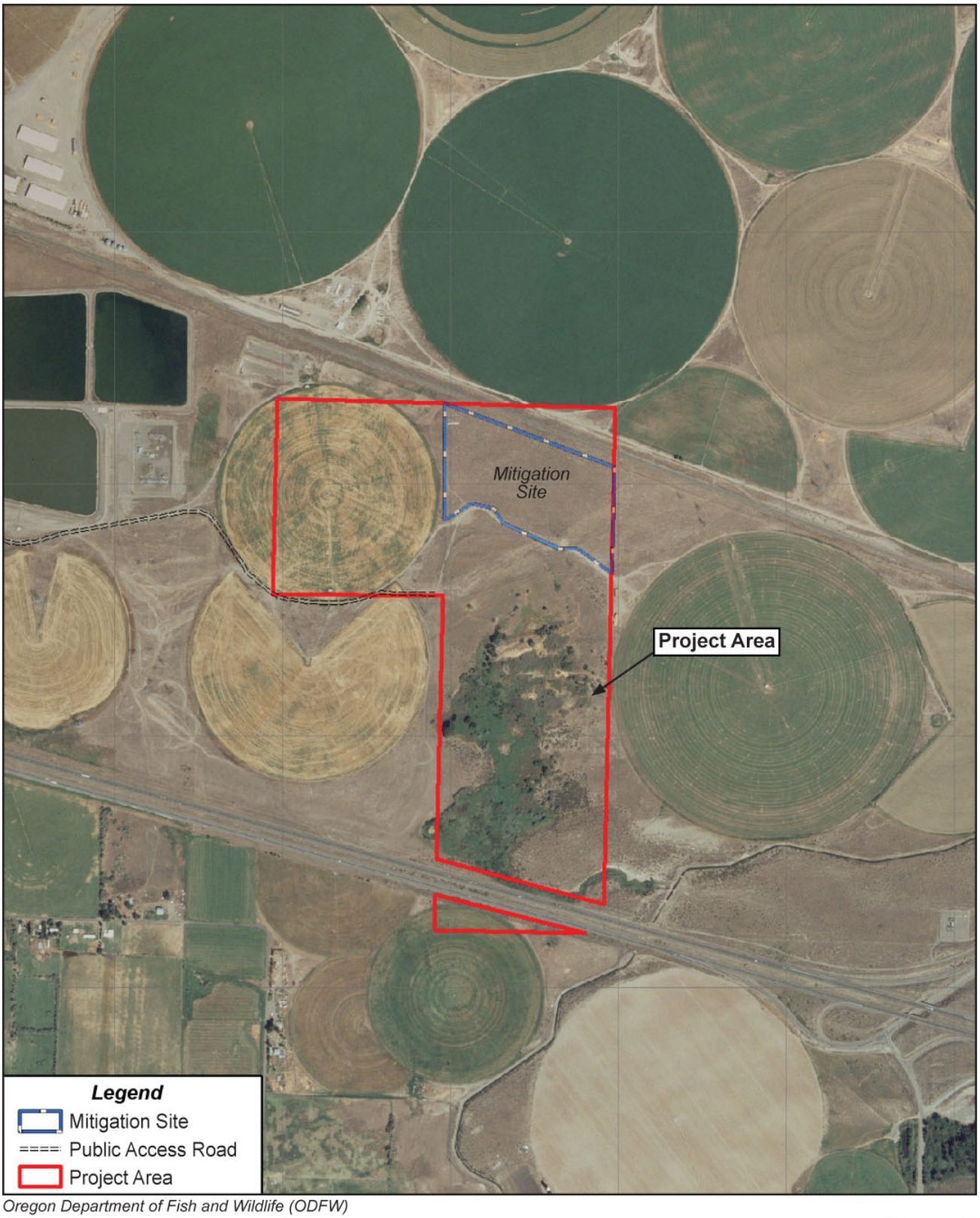
File Name: p:\p\pein00000004\0600info\0670reports\mitigation\really final odfw mitigation memo.doc



USGS Quadrangles: Boardman, OR-WA 1993 and Clarke, OR 1993

Figure 1
Vicinity

Scale - 1 : 24,000



Oregon Department of Fish and Wildlife (ODFW)

Figure 2
Coyote Springs Wildlife Area Site Plan Aerial

Not to Scale