



STATE OF WASHINGTON  
**ENERGY FACILITY SITE EVALUATION COUNCIL**  
PO Box 43172 • Olympia, Washington 98504-3172

**DETERMINATION OF NONSIGNIFICANCE**  
**Pursuant to Chapter 463-47 WAC and WAC 197-11-340**

For the

**CHERRY POINT COGENERATION PROJECT**  
**REQUEST TO AMEND THE SITE CERTIFICATION AGREEMENT**

**Description of current proposal:** BP West Cast Products LLC (BP or Certificate Holder) submitted a request to amend the Cherry Point Cogeneration Project Site Certification Agreement (SCA). The Cherry Point Project was approved by Governor Locke in December 2004, as a 720 MW natural gas fired combustion cycle cogeneration facility. BP has requested that the SCA be amended as follows:

- Allow BP the flexibility to proceed with construction of the entire 720 MW cogeneration facility approved by the Council, or to construct the facility in two phases using either GE or Siemens turbines;
- Allow BP to use treated refinery fuel gas in the Heat Recovery Steam Generator (HRSG) duct burners instead of natural gas, so long as it will comply with the same Prevention of Significant Deterioration (PSD) permit emission limitations applicable when operating the duct burners with natural gas;
- Allow BP to lengthen the construction period from 27 to 33 months;
- Allow BP to use aqueous rather than anhydrous ammonia;
- Change the SCA so that the International Building Code of 2003 (IBC-2003) rather than the Uniform Building Code of 1997 (UBC-1997) will govern the project civil and structural design;
- Allow BP to determine during the final project design whether stack silences for the Phase I project are required to meet applicable noise regulations and noise limits agreed to in the stipulation with Whatcom County;
- Change the description of the Ferndale Pipeline compressor facilities found in the SCA.

**Proponent:**

BP West Coast Products LLC  
4519 Grandview Road  
Blaine, WA 98230

Contact: Mark Moore, (360) 371-1200

**Address and location of proposal:** The Project is located in Whatcom County, Washington, approximately 15 miles northwest of Bellingham and 7 miles south of Blaine, beside the existing BP Refinery.

**Titles of documents that have been previously adopted:** The lead agency issued the BP Cherry Point Cogeneration Project Draft and Final Environmental Impact Statement (DOE/EIS-0349) in September 2003, and December 2004, respectively.

**Previously Adopted documents are available for inspection at:** Energy Facility Site Evaluation Council, 925 Plum Street N.E., Olympia, Washington, 98504-3172, Monday through Friday (excluding state holidays), from 8 am to 5 pm, and on the EFSEC web site at [www.efsec.wa.gov](http://www.efsec.wa.gov).

**Determination of Nonsignificance:** This threshold determination is based on the information contained in the following documents and other information on file with the lead agency:

- June 20, 2006, Cherry Point Cogeneration Project – Request for SCA Amendment.
- June 2006, Prevention of Significant Deterioration Application, Cherry Point Cogeneration Project.
- June 20, 2006, Environmental Checklist, prepared by Mark Moore, BP West Coast Products, LLC.
- August 15, 2006, BP responses to EFSEC staff questions.
- August 14, 2006, Proposed Amendments to the Cherry Point Cogen SCA - Revised.
- September 10, 2006 Addendum to the BP Cherry Point Cogeneration Project Final EIS.

The above documents are available for inspection at [www.efsec.wa.gov/bpcogen.shtml](http://www.efsec.wa.gov/bpcogen.shtml) or the EFSEC office.

**Lead agency action:** Action on this proposal will be consistent with Chapter 463-66 WAC. The Energy Facility Site Evaluation Council may take action to approve or deny this request at the earliest at its regular Monthly Meeting scheduled as follows:

**Tuesday October 10, 2006 – 1:30 PM**  
EFSEC Offices - Town Square, Building No. 4  
Third Floor, Conference Room 308  
925 Plum Street S.E.  
Olympia, Washington 98504-3172

**Public Comment:** This DNS is issued pursuant to Chapter 463-47 WAC and WAC 197-11-340.

Comments on the request to amend the SCA will be accepted as follows:

**Public Meeting:**

<b>When: Tuesday, October 3, 2006, from 6:30 p.m. to 8:30 p.m.</b>	<b>Where: Ferndale Library 2222 Main Street Ferndale, Washington 98248</b>
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**Written Comments should be addressed to:**

To be considered, written comments must be received in EFSEC's offices by 5:00 p.m. Friday October 6, 2006. Please mail such comments to:

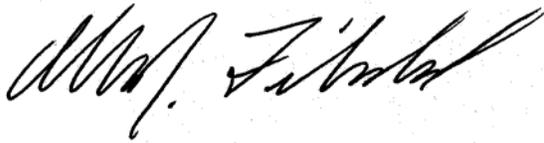
Allen J. Fiksdal  
EFSEC Manager  
PO Box 43172  
Olympia, WA 98504-3172

Or by e-mail to [efec@cted.wa.gov](mailto:efec@cted.wa.gov)

**Responsible official:** Allen J. Fiksdal  
**Position/title:** EFSEC Manager  
**Address:** PO Box 43172, Olympia, WA 98504-3172  
**Phone:** 360-956-2152

There is no agency appeal.

**Date:** September 11, 2006



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Allen J. Fiksdal  
EFSEC Manager

Attachment: September 2006 Addendum to Final EIS and Environmental Checklist



STATE OF WASHINGTON

## ENERGY FACILITY SITE EVALUATION COUNCIL

PO Box 43172 • Olympia, Washington 98504-3172

### Addendum to Final Environmental Impact Statement (EIS)

#### Cherry Point Cogeneration Project

September 11, 2006

#### 1 Project Background

The Final EIS for the BP Cherry Point Cogeneration Project (Cherry Point Cogen) was issued by EFSEC on August 20, 2004. On December 21, 2004, Governor Locke approved the Site Certification Agreement (SCA) for the project. BP West Coast Products LLC (BP or Certificate Holder) anticipates that construction would begin in the Spring of 2007.

On June 20, 2006, BP submitted a request to amend the Cherry Point Cogen SCA as follows:

1. Allow BP the flexibility to proceed with construction of the entire 720 MW cogeneration facility approved by the Council, or to construct the facility in two phases using either GE or Siemens turbines;

The Phase I facility would be configured with two natural gas-fired Combustion Generation Turbines (CGTs). Each CGT would be equipped with a Heat Recovery Steam Generator (HRSG) with supplemental duct-firing capability. Steam produced from the HRSGs would be sent to a single Steam Turbine Generator (STG) with process extraction and condensing capability.

The Phase I Facility would use either GE 7FA or Siemens SGT-6 5000F (the new version of the Siemens 501F) CGTs. Each CGT would have a nominal power output of 173 MW or 198MW, respectively, at 50F. The CGTs would be equipped with Dry Low NOx combustion systems.

The Phase I Facility would have two HRSGs featuring a triple-pressure reheat design. Each HRSG would be equipped with duct burners for supplementary firing with either natural gas or refinery fuel gas treated to the same sulfur levels as natural gas.

The maximum duct firing capacity for each Phase I Facility HRSG would likely be between 450-600 MMBtu/hr, which is larger than the duct burners in the Authorized

Facility. These larger duct burners are needed to provide for a portion of the required steam redundancy in the event that one gas turbine is out of service.

The Phase I facility would have a single STG. The STG would have a maximum gross power output of approximately 200 MW, but its actual output would vary upon the number and loading of CGTs operating, the amount of steam going to the Refinery, and the amount of duct firing occurring.

The Phase II facility is described only conceptually by BP at this time, as further additions or modifications to the facility that would increase its capacity to no more than 720 MW. The Certificate Holder assumes that the combined Phase I and Phase II facility would still occupy the same footprint as the Authorized Facility, and impacts associated with construction and operation would stay within the envelope considered in connection with the original SCA. If, after constructing the Phase I Facility, the Certificate Holder decided to go forward with Phase II, the Certificate Holder would provide the Council with detailed information about the configuration of Phase II. If further amendment of the SCA is required, the Certificate Holder would request it at that time.

2. Allow BP to use treated refinery fuel gas in the HRSG duct burners instead of natural gas, so long as it will comply with the same PSD permit emission limitations applicable when operating the duct burners with natural gas;
3. Allow BP to lengthen the construction period from 27 to 33 months;
4. Allow BP to use aqueous rather than anhydrous ammonia. The Phase I facility would use aqueous ammonia rather than anhydrous ammonia as authorized by the existing SCA. This change should reduce the potential for offsite ammonia exposure. The aqueous ammonia system would consist of ammonia storage, transfer, vaporization and injection subsystems.
5. Change the SCA so that the International Building Code of 2003 (IBC-2003) rather than the Uniform Building Code of 1997 (UBC-1997) will govern the project civil and structural design;
6. Allow BP to determine during the final project design whether stack silences for the Phase I project are required to meet applicable noise regulations and noise limits agreed to in the stipulation with Whatcom County;
7. Change the description of the Ferndale Pipeline compressor facilities found in the SCA. The Ferndale Pipeline would deliver natural gas to the Cogeneration Project site at a pressure of 500-550 psig. The owner and operator of the Ferndale Pipeline had previously anticipated installing additional compression at the Refinery, but now plans to install a compressor station near the U.S.-Canada border instead. The owner and operator of the pipeline will obtain whatever permits and approvals are required to construct and operate this compressor station. BP requests that language regarding the compressor facilities in the SCA be deleted because these facilities are not under Council jurisdiction.

BP's request for amendment provides a detailed description of the anticipated changes to the project if the Council were to approve the proposed changes.

## **2 Purpose of this Addendum**

This document is a SEPA Addendum to the BP Cherry Point Cogeneration Project Draft and Final EIS<sup>1</sup>. It is being issued by EFSEC according to WAC 197-11-625. The purpose of this Addendum is to document the results of the analysis performed to

1. evaluate whether the proposed changes to the SCA would have a probable significant adverse environmental impact on any element of the environment that could not be mitigated;
2. determine whether the significance of any identified unavoidable adverse impacts has changed from the assessment made in the Final EIS.

This Addendum was prepared by EFSEC staff. The Certificate Holder provided technical information for its preparation. This Addendum is issued pursuant to WAC 197-11-600(4)(c) and 625, which were adopted by EFSEC in WAC 463-47-020. There is no comment period for this Addendum.

## **3 Impacts to the Environment**

### ***3.1 Will there be any new or additional significant adverse environmental impacts?***

Each of the seven proposed changes to the SCA was reviewed to determine if it would cause a change to any of the impacts to the environment identified in the Final EIS, or if it would cause any new impacts to the environment. (The summary of impacts identified in the Final EIS is attached to this Addendum for reference.) If new impacts might be anticipated, an evaluation was made as to whether these impacts would be significant and adverse. A summary of this analysis is presented in Addendum Table 1.

With the proposed changes to the SCA, only a single mitigation measure identified in the EIS would be modified. Under "Air Quality – Operation" the project proponent committed to only burning natural gas in the combustion turbine and duct burners, and only low-sulfur diesel fuel in the emergency generator and firewater pump. If approved, changes to the SCA and the PSD permit would allow BP to use treated refinery fuel gas in the HRSG duct burners instead of natural gas, so long as the project complies with the same PSD permit emission limitations applicable when operating the duct burners with natural gas. As discussed below, and in Addendum Table 1, use of refinery fuel gas will be reviewed under the PSD review process, and would be permitted only under such conditions that the project emissions comply with all state and federal requirements.

BP will continue to implement all other mitigation measures agreed to in the Final EIS, and originally required by the Site Certification Agreement. All post construction habitat restoration activities will be implemented at the conclusion of construction of Phase I.

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<sup>1</sup> Because the Final EIS was prepared in abridged format, it incorporates both the Final and Draft EIS.

As a result, no new or additional significant adverse environmental impacts are expected.

### **3.2 *What if project modifications related to Phase II have new environmental impacts that were not anticipated in the Final EIS??***

The proposed modification of the SCA ensures that the Council has the opportunity to review the modifications before construction of Phase II begins. If the modifications have the potential to result in new environmental impacts, the Certificate Holder would be required to request an amendment of the Site Certification Agreement, with the review required by EFSEC law and regulations.

EFSEC staff anticipates that the construction of Phase II may have temporary construction impacts, even if no additional footprint is developed and all habitat and wetlands mitigation has been implemented at the conclusion of Phase I. For example: construction noise; impacts to visual resources due to construction activities; construction traffic; construction air emissions; impacts to stormwater due to erosion or runoff; and consumption of energy and natural resources will occur. However, it is expected that none of these impacts will be significant. The Certificate Holder will be required to abide by the requirements of the SCA during construction of Phase II. Furthermore, a number of mitigation measures implemented during construction of Phase II will decrease the level of impact when Phase II is constructed. For example:

- the landscaping and tree plantings that will take place between the project site and Grandview Road as part of the Phase I construction will provide some visual screening and for Phase II construction and operation activities, thereby reducing the impacts originally anticipated;
- mitigation measures agreed upon with WSDOT for the original project will already be in place once Phase II is being constructed;
- the Storm Water Pollution Prevention Plan and associated facilities implemented for Phase I operations would reduce the potential storm water impacts during construction and operation of Phase II.

As a result, these temporary construction impacts are not anticipated to be significant and adverse.

### **3.3 *What about impacts to Air Quality from Phase I and Phase II?***

The Final EIS did not identify any significant unavoidable adverse impacts on air quality as a result of the full build-out of the project. Air emissions from the facility must comply with state and federal air emission control requirements.

The following proposed changes to the SCA have the potential to change the air emissions from the Project: constructing a smaller project in Phase I (and selecting a specific type of combustion turbine), and using refinery fuel gas in the duct burners. The impact of these changes will be thoroughly reviewed through the Notice of Construction/Prevention of Significant Deterioration (NOC/PSD) permit amendment process. If approved, the amended NOC/PSD permit would set emission limits that would ensure that air emissions associated with the revised project:

- would not violate ambient air quality standards or objectives, or other regulatory air quality values;
- would not be likely to cause any adverse impacts to the protection of human health and welfare, to any soils, vegetation, flora, or fauna, or to any other sensitive areas identified by the National Parks Service, U.S. Fish and Wildlife Service, U.S. Forest Service, or by Canadian air quality regulatory agencies.

With these conditions, the revised Phase I project would not have any new or additional significant adverse impacts on air quality.

The Phase II request will require another amendment to the PSD permit at the time it is proposed. Addition of new equipment such as the originally planned third combustion turbine, or a “significant” modification to the installed equipment permitted in the currently proposed Phase I of the project would require a current BACT review at that future time for all new emissions units in the Phase II proposal and possibly for any existing units that are modified “significantly”. New modeling of any new or modified emissions units would need to be done. Because Phases I and II have been discussed as linked projects, PSD rules and accepted guidance could require that this new modeling consider the impacts of both the Phase I and proposed Phase II emissions together. Since Phase II is not being permitted at this time, if the future Phase II is proven to be an independent project, it is possible that it would be modeled independently, but that issue would be determined at that future date according to the PSD rules and regulations in force at that time.

### **3.4 *Will there be any change in Cumulative Impacts?***

The EIS identified several areas where cumulative impacts could occur.

#### **a) Global Warming:**

The Final EIS reported that the contribution of greenhouse gas from this project would represent 2.5% of the greenhouse gas emitted from all sources in Washington State and 0.03% of U.S. emissions. The Final EIS also concluded that regional economic growth and the subsequent increases in greenhouse gas emissions, including those from additional gas-fired generation, would also add to the cumulative impacts.

Since the approval of the Cherry Point Project, proponents of a number of other gas-fired projects in WA State have indicated that their projects would not proceed (Sumas Energy 2, Wallula Power Project, and Starbuck Power Project for example). However, other fossil-fuel fired energy projects may be developed to address future electrical power needs in Washington and in the Pacific Northwest region as a whole.

Finally, BP has not requested any change to the greenhouse gas mitigation requirements in the SCA, and would therefore implement the mitigation for operation of both Phase I and Phase II.

## b) Regional Air Quality

The Final EIS concluded that the results of modeling under the worst-case scenario for criteria pollutants from the proposed project indicate there would be no air quality impacts in the US or Canada when compared to the most stringent values of the National Ambient Air Quality Standards, Washington Ambient Air Quality Standards, or Canadian Objectives or Standards. BP continues to commit to shutting down three older utility boilers, resulting in overall reductions of PM<sub>10</sub> and NO<sub>x</sub> emissions in the air shed.

Since construction of the Georgia Strait Pipeline along Grandview Road is not expected to proceed, the cumulative construction related air emissions will not occur.

As noted in section 4.2 above, prior to the construction of Phase II in the future a complete PSD analysis will have to be conducted for the Phase II modifications. The impact of Phase II on regional air quality would be assessed based on the conditions current at that time.

## c) Water

The Final EIS identified cumulative impacts associated with the concurrent construction of the Georgia Strait Pipeline (GSX). These included use of water for construction and testing activities and temporary impacts to wetlands. The GSX pipeline project was cancelled in late 2004, so such cumulative impacts would not occur.

Other potential cumulative impacts identified in the Final EIS would remain unchanged. These would include wetlands impacts as a result of construction of the Cherry Point Project along with the BP ISOM unit, and the Brown Road Materials Storage Area. Cumulatively, there would be some incremental loss of wetland surface water storage in the watershed, but that would be offset by onsite treatment and detention, and offsite mitigation in the basin.

Water withdrawals from the Nooksack River by industrial users in the area, and subsequent water discharges to the Strait of Georgia would also not significantly change if the Cherry Point Project was phased.

## d) Natural Gas Supply

The projected annual consumption of natural gas by the proposed project is approximately 42,457,000 million British thermal units (MBtu). The project would continue to result in an incremental contribution to the regional demand for natural gas. However, the Final EIS identified that there is sufficient capacity in the gas supply and distribution system serving the Pacific Northwest to supply the proposed cogeneration project and existing and planned natural-gas-related projects such that the overall effect on available supplies would be negligible. Furthermore, a number of natural gas fired electrical generating projects have been cancelled within the region.

e) Transportation

The Final EIS identified that the construction of the Cherry Point Cogen and the construction of the GSX pipeline project could occur at about the same time. This was expected to cause increased traffic congestion and delays at intersections along Grandview Road over the two-year period. This impact would not occur with the cancellation of the GSX project.

Whatcom County planning officials have expressed that since the Cherry Point Cogen was approved in 2004, the area surrounding the refinery has seen an increase in other development applications and/or approvals. As a result, the County is planning improvements to county roads which could coincide with the construction period for the Cherry Point Cogen. The SCA requires that BP prepare a construction traffic plan. During preparation of this plan BP would coordinate with Whatcom County to ensure that traffic impacts are mitigated.

Element of the Environment	Revisions to the SCA that may have additional or different impacts:	Revisions to the SCA that do not have any impact on this element of the environment
<p><b>Earth</b></p> <p><b>Final EIS construction impacts:</b></p> <ul style="list-style-type: none"> <li>- removal of graded materials for disposal at other location</li> <li>- fill was to be imported</li> <li>- erosion of stock piled soils</li> <li>- potential for discovery of contaminated soils.</li> </ul> <p><b>Final EIS operation impacts:</b></p> <ul style="list-style-type: none"> <li>- Seismic event</li> <li>- Ash fall</li> </ul> <p><b>Did the Final EIS anticipate significant adverse impacts?</b> The Final EIS did not identify any adverse significant impacts on earth resources. It concluded that Project design as well as operation and maintenance planning would minimize potential risks from natural hazards such as seismic and volcanic events.</p> <p><b>If approved, will the revisions to the SCA have any new or additional significant adverse impacts?</b> Because the footprint of the facility is not going to change, and because BP would continue to implement all the mitigation measures identified in the Final EIS, no additional or new significant adverse impacts are expected to occur.</p>	<p><b>1 a. Phasing</b> The Phase I facility would fit within the same footprint as the Authorized facility; BP assumes that the Phase I and Phase II would still occupy the same footprint.</p> <p>No change to construction impacts is anticipated:</p> <ul style="list-style-type: none"> <li>- Same footprint will be graded/filled;</li> <li>- no new areas will be opened for construction so no additional risk for discovery of contaminated soils;</li> <li>- erosion control will be implemented through the erosion and sedimentation control plan (TESC), the Storm Water Pollution Prevention Plan (SWPPP), and Best Management Practices (BMPs).</li> </ul> <p>No change to operation impacts is anticipated as all mitigation measures will continue to be implemented.</p>	<p><b>1 b. Selection of GE or Siemens turbines</b> Selection of GE vs. Siemens Turbines does not impact any earth resources.</p> <p><b>2. Use of treated refinery fuel gas in duct burners</b></p> <p><b>3. Lengthen construction from 27 to 33 months.</b> Mitigation measures for erosion control would be implemented through the entire construction period, regardless of the length. Since the original length already covered a 4 season period, erosion control measures would already take into account all weather/rainfall conditions.</p> <p><b>4. Use of Aqueous vs. Anhydrous Ammonia</b></p> <p><b>5. Use of IBC 2003</b> Use of IBC 2003 would ensure that project is designed consistently with up-to-date requirements.</p> <p><b>6. Determine requirements for stack silencers through final project design.</b></p> <p><b>7. Change description of the Ferndale Pipeline compressor facilities.</b></p>
<p><b>Air Quality</b></p> <p><b>Final EIS construction impacts:</b></p> <ul style="list-style-type: none"> <li>- Emissions anticipated from fugitive dust and exhaust from construction vehicles;</li> <li>- Not anticipated that WAAQS or NAAQS would be exceeded.</li> </ul> <p><b>Final EIS operation impacts</b> The final EIS anticipated a number of impacts to air quality, all of which were to be mitigated through the installation of air pollution controls required by the PSD/NOC permit. With these controls and emission limits, impacts to air quality were below all thresholds established by EPA and WA State.</p> <p><b>Did the Final EIS anticipate significant adverse impacts?</b> The Final EIS did not identify any significant unavoidable adverse impacts on air quality.</p>	<p><b>1 a. Phasing</b> If Phase II proceeds at a later date, construction related emissions would occur during Phase II construction.</p> <p>The PSD/NOC permit for operation of the project must be equipment specific. The PSD/NOC permit will be revised to accurately reflect the equipment being installed in Phase 1. If Phase II proceeds, a new permit revision would be required. At that time, impacts associated with Phase II would be evaluated.</p> <p><b>1 b. Selection of GE or Siemens turbines</b> Review of the amendment to the PSD/NOC permit will take into account the potential differences in emissions from the GE vs. Siemens equipment. Ultimately, the PSD permit would only allow emissions that do not threaten</p>	<p><b>5. Use of IBC 2003</b></p> <p><b>6. Determine requirements for stack silencers through final project design.</b> The use of stack silencers does not impact emissions control.</p> <p><b>7. Change description of the Ferndale Pipeline compressor facilities.</b></p>

Element of the Environment	Revisions to the SCA that may have additional or different impacts:	Revisions to the SCA that do not have any impact on this element of the environment
<p>(Air Quality – Continued)</p> <p><b>If approved, will the revisions to the SCA have any new or additional significant adverse impacts?</b> Air emissions from the facility must comply with state and federal air emission control requirements. With this requirement in place, there would not be any new or additional significant adverse impacts to air quality.</p>	<p>health, long range air quality values, or the NAAQS and WAAQS.</p> <p><b>2. Use of treated refinery fuel gas in duct burners</b> Not applicable to construction period. For impacts during operation, review of the amendment to the PSD/NOC permit will take into account the potential differences in using refinery fuel gas in the duct burners. Ultimately, the PSD permit would only allow emissions that do not threaten health, long range air quality values, or the NAAQS and WAAQS.</p> <p><b>3. Lengthen construction from 27 to 33 months.</b> Emissions due to construction would last over a longer period of time. However, BMP's to control fugitive dust would also be implemented over the entire construction period. Not anticipated that construction emissions would require NAAQS or WAAQS to be exceeded during the additional months of construction.</p> <p><b>4. Use of Aqueous vs. Anhydrous Ammonia</b> Ammonia is used in the control of NOx emissions. Ammonia emissions are limited through the PSD/NOC permit. Using a different type of ammonia will not change the ultimate ammonia emissions limit, because the emissions from the exhaust stack are limited by application of Best Available Control Technology and other state and federal emission limitations. No change to impacts for construction or operation; also see health and safety section.</p>	
<p><b>Water Resources</b></p> <p><b>Final EIS construction impacts:</b></p> <ul style="list-style-type: none"> <li>- Water was to be imported to the site for dust control and for pre-operational testing.</li> <li>- Stormwater flow would be altered to control erosion and sedimentation</li> <li>- Ground water recharge would be reduced on the site, but discharged would be increased to the wetlands north of Grandview road.</li> </ul> <p><b>Final EIS operation impacts</b></p> <ul style="list-style-type: none"> <li>- Use of up to 2,316 gpm of process water;</li> <li>- Use of up to 5 gpm potable water;</li> <li>- Discharge of industrial waste water to the refinery waste water treatment system;</li> <li>- Runoff fro surfaces containing contaminants could impact surface and ground water.</li> <li>- Groundwater recharge impacts same as those during construction.</li> </ul> <p><b>Did the Final EIS anticipate significant adverse impacts?</b> The Final EIS concluded that the proposed project, with all its associated mitigation measures, would have a limited impact on water resources in the area. Loss of wetlands and their hydrologic functions due to fill activities would be offset by enhancement of wetlands within the wetland mitigation areas. Increased stormwater runoff due to impervious surfaces</p>	<p><b>1 a. Phasing</b> Construction of Phase II would also require water for dust suppression. The amount of additional water needed (if any) would depend on the amount of foot print opened for temporary construction operations. The use of water for pre-operational testing would likely be proportional to the equipment being installed (i.e. less equipment in Phase I, so less water used in Phase I).</p> <p>If only Phase I is constructed, less water would be used for operation of the facility. If Phase II is constructed, BP commits to using the same amount of total water originally agreed to in the SCA.</p> <p>Regarding stormwater controls during construction and operation, BP proposes to implement all stormwater controls proposed in their application and agreed to in associated permits and agreements, regardless if only phase I or both phases are built and operated. These controls would be implemented and maintained throughout the life of the facility.</p>	<p><b>1 b. Selection of GE or Siemens turbines</b> This would have no impact on water use for construction. For operation BP commits to using the same amount or less of total water originally agreed to in the SCA.</p> <p><b>2. Use of treated refinery fuel gas in duct burners</b></p> <p><b>4. Use of aqueous vs. anhydrous ammonia</b></p> <p><b>5. Use of IBC 2003</b></p> <p><b>6. Determine requirements for stack silencers through final project design.</b></p> <p><b>7. Change description of the Ferndale Pipeline compressor facilities.</b></p>

Element of the Environment	Revisions to the SCA that may have additional or different impacts:	Revisions to the SCA that do not have any impact on this element of the environment
<p>(Water Resources – continued)</p> <p>would be offset by stormwater detention systems and wetland mitigation. Total water withdrawal from the Nooksack River would either be slightly less or the same, depending on whether Alcoa Intalco Works was operating.</p> <p><b>If approved, will the revisions to the SCA have any new or additional significant adverse impacts?</b> BP will continue to implement all mitigation measures identified in the EIS for both construction and operation of the project. Phase I operations water use is expected to be lower than the amount permitted in the SCA. If Phase II is constructed, BP commits to not exceeding the amount of water originally permitted. With these conditions, the revised project would not have any new or additional significant adverse impacts on water resources.</p>	<p><b>3. Lengthen construction from 27 to 33 months.</b> With a longer construction period, it is possible that more water will be needed for ongoing dust suppression activities. However, since the water will be procured from a certificate source, this is not anticipated to create a significant adverse impact.</p>	
<p><b>Water Quality</b></p> <p><b>Final EIS construction impacts:</b></p> <ul style="list-style-type: none"> <li>- Wastewater generated during construction activities and its discharge</li> <li>- Impacts to storm water quality due to spills and sediments</li> <li>- Sanitary waste generation</li> <li>- Runoff from contaminated surfaces</li> </ul> <p><b>Final EIS operation impacts:</b></p> <ul style="list-style-type: none"> <li>- Spills and leaks of chemicals could affect stormwater and wetlands</li> <li>- The facility would discharge its waste water to the BP refinery waste treatment system</li> <li>- Other activities related to operation (washing turbines, industrial supply water line) could also be a source of contaminants for storm and surface water.</li> </ul> <p><b>Did the Final EIS anticipate significant adverse impacts?</b> The Final EIS concluded that construction and operation of the cogeneration facility has the potential to affect surface and groundwater quality through contaminated stormwater runoff and wastewater discharge. The proposed project has numerous design elements and mitigation measures that, if employed, would reduce or eliminate impacts on water quality. Therefore, no significant unavoidable adverse impacts on water quality are expected.</p> <p><b>If approved, will the revisions to the SCA have any new or additional significant adverse impacts?</b> With the proposed changes to the SCA, BP commits to implementing all mitigation measures previously identified in the SCA. All water discharges would also continue to meet limits already established in the SCA. The revised project would therefore not have any new or additional significant adverse impacts on water quality.</p>	<p><b>1 a. Phasing</b> <b>1 b. Selection of GE or Siemens turbines</b> The discharge of water used for pre-operational testing would likely be proportional to the equipment being installed (i.e. less equipment in Phase I, so less water used and discharged in Phase I).</p> <p>Regarding stormwater and run-off impacts, the project would implement all BMPs already identified, as well as a TESC plan and a SWPPP.</p> <p>The same types of impacts could occur when Phase II is constructed at a later date.</p> <p>If only Phase I is constructed, less water would be used for operation of the facility. If Phase II is constructed, BP commits to using the same amount of total water originally agreed to in the SCA. Discharges would be proportional to water usage, so additional impacts are not expected to occur.</p> <p>Regarding stormwater control, BP proposes to implement all stormwater controls proposed in their application and agreed to in associated permits and agreements, regardless if only phase I or both phases are built and operated. These controls would be implemented and maintained throughout the life of the facility.</p> <p><b>3. Lengthen construction from 27 to 33 months.</b> With a longer construction period, water discharges with construction activities would continue for six months more. However, BP will be required to implement all stormwater BMPs needed during the entire construction period. Additional impacts are therefore not anticipated.</p>	<p><b>2. Use of treated refinery fuel gas in duct burners</b></p> <p><b>5. Use of IBC 2003</b></p> <p><b>6. Determine requirements for stack silencers through final project design.</b></p> <p><b>7. Change Description of the Ferndale Pipeline compressor facilities.</b></p>

Element of the Environment	Revisions to the SCA that may have additional or different impacts:	Revisions to the SCA that do not have any impact on this element of the environment
(Water Quality – continued)	<p><b>4. Use of aqueous vs. anhydrous ammonia</b> Storage of ammonia would comply with BMP's and the Spill Prevention Control and Countermeasures Plan developed for operations.</p>	
<p><b>Wetlands</b></p> <p><b>Construction and Operation identified in the Final EIS:</b> As permitted, the project is required to mitigate the impacts to 35+ acres of wetlands. BP has developed a comprehensive wetlands mitigation strategy to be implemented once the project begins construction and then monitored through the life of the project.</p> <p><b>Did the Final EIS anticipate significant adverse impacts?</b> The Final EIS indicated that a total of 30.51 acres would be permanently converted to the cogeneration facility site and laydown areas within the refinery interface area. The permanent disturbance of 30.51 acres of generally low quality wetland systems would be compensated by the restoration and creation of 110 acres of higher quality wetlands. An additional 4.86 acres of wetland within Laydown Areas 2 and 4 would be temporarily, but unavoidably, adversely affected. Mitigation for these impacts would entail restoration of wetland habitats following construction of the proposed project.</p> <p><b>If approved, will the revisions to the SCA have any new or additional significant adverse impacts?</b> Since the footprint of the project will not change, and since BP commits to implementing all of the wetlands mitigation measures upon completion of Phase I, no changes to wetlands impacts is expected. The revised project would therefore not have any new or additional significant adverse impacts on wetlands.</p>	<p><b>3. Lengthen construction from 27 to 33 months.</b> BMP's installed during construction for the protection of wetlands would continue to be installed and maintained for the extended construction period.</p>	<p><b>1 a. Phasing</b> <b>1 b. Selection of GE or Siemens turbines</b> BP proposes to implement the full wetlands mitigation plan even if the project only proceeds through Phase I. Because the project footprint is not going to change, additional impacts to wetlands would not occur.</p> <p><b>2. Use of treated refinery fuel gas in duct burners</b></p> <p><b>4. Use of Aqueous vs. Anhydrous Ammonia</b></p> <p><b>5. Use of IBC 2003</b></p> <p><b>6. Determine requirements for stack silencers through final project design.</b></p> <p><b>7. Change Description of the Ferndale Pipeline compressor facilities.</b></p>
<p><b>Agricultural lands, crops and livestock</b></p> <p><b>Construction and operation impacts identified in the Final EIS:</b></p> <ul style="list-style-type: none"> <li>- Modification of land identified as Category I and II prime farmland soils and mapped as APO soils.</li> <li>- Conversion to some agricultural land to utility uses (transmission line)</li> <li>- Loss of 2.6 acres of hybrid cottonwoods</li> <li>- End cattle grazing to implement wetlands mitigation plan in are CMA 1</li> </ul> <p><b>Did the Final EIS anticipate significant adverse impacts?</b> The Final EIS concluded that no significant unavoidable adverse impacts on agricultural land, crops, or livestock are anticipated. Whatcom County has zoned the project area for industrial land uses and therefore the loss of potential agricultural soils is not considered significant. In addition, no agricultural crops would be lost with the construction and operation of the project, and with the exception of the loss of grazing lands on leased land, no livestock would be adversely affected with the construction and operation of the proposed project. No mitigation measures were required for this element of the environment.</p>		<p><b>1 a. Phasing</b> <b>1 b. Selection of GE or Siemens turbines</b> Because the footprint of the project is not going to change, and because the wetlands mitigation plan will continue to be fully implemented, there would be no increase of impacts to agricultural activities.</p> <p><b>2. Use of treated refinery fuel gas in duct burners</b></p> <p><b>3. Lengthen construction from 27 to 33 months.</b> Agricultural activities will be impacted due to construction of the project as a whole. A longer construction period will not increase impacts.</p>

Element of the Environment	Revisions to the SCA that may have additional or different impacts:	Revisions to the SCA that do not have any impact on this element of the environment
<p>(Agricultural Lands – continued)</p> <p><b>If approved, will the revisions to the SCA have any new or additional significant adverse impacts?</b> The footprint of the project will not change, therefore neither will impacts to agricultural lands, crops and livestock.</p>		<p><b>4. Use of Aqueous vs. Anhydrous Ammonia</b></p> <p><b>5. Use of IBC 2003</b></p> <p><b>6. Determine requirements for stack silencers through final project design.</b></p> <p><b>7. Change Description of the Ferndale Pipeline compressor facilities.</b></p>
<p><b>Vegetation, Fish and Wildlife, Habitat.</b></p> <p><b>Construction and operation impacts identified in the Final EIS:</b></p> <ul style="list-style-type: none"> <li>- As permitted the project is expected to impact 33+ acres of various types of habitat with loss and removal.</li> <li>- Construction may disturb feeding and nesting of local wildlife, and may cause their temporary displacement</li> <li>- Implementation of the wetlands mitigation plan would enhance certain habitats, and benefit the wildlife that use them.</li> </ul> <p><b>Did the Final EIS anticipate significant adverse impacts?</b> The Final EIS concluded that with implementation of the recommended mitigation measures and avoidance of sensitive areas such as stream and riparian corridors, no significant unavoidable adverse impacts on upland vegetation, wildlife and habitat, fish, and threatened and endangered species are identified. The proposed project would be located adjacent to a facility with associated human-related disturbance that has been operating for more than 30 years. Vegetation communities that provide habitat for wildlife would be cleared, but that vegetation is generally of low quality. Proposed wetland and upland creation and restoration efforts would create higher quality habitat that is likely to attract a more diverse variety of native wildlife species than currently occupy the project site. Fish habitat is not located within about 0.5 mile of the footprint of the cogeneration facility, the refinery interface, or the transmission system corridor. Wetland mitigation sites CMA 1 and CMA 2 would enhance habitat adjacent to the riparian corridor of Terrell Creek. Construction and operation activities would avoid stream channels within the transmission line corridor. Breeding and foraging habitat typically associated with federal and state protected species or listed threatened and endangered species would not be disturbed under the proposed project.</p> <p><b>If approved, will the revisions to the SCA have any new or additional significant adverse impacts?</b> With the proposed changes to the SCA, the footprint of the project will not change. BP commits to implementing all of the wildlife and habitat mitigation measures identified in the Final EIS and required by the SCA. The revised project would therefore not have any new or additional significant adverse impacts on upland vegetation, wildlife and habitat, fisheries, and threatened and endangered species.</p>		<p><b>1 a. Phasing</b> <b>1 b. Selection of GE or Siemens turbines</b> Because the footprint of the project is not going to change, and because the wetlands and wildlife mitigation plans and agreements will continue to be fully implemented, there would be no increase of impacts to upland vegetation, fish, wildlife and habitats.</p> <p><b>2. Use of treated refinery fuel gas in duct burners</b></p> <p><b>3. Lengthen construction from 27 to 33 months.</b> Wildlife habitats will be impacted due to construction of the project as a whole. A longer construction period will not increase impacts.</p> <p><b>4. Use of Aqueous vs. Anhydrous Ammonia</b></p> <p><b>5. Use of IBC 2003</b></p> <p><b>6. Determine requirements for stack silencers through final project design.</b></p> <p><b>7. Change Description of the Ferndale Pipeline compressor facilities.</b></p>

Element of the Environment	Revisions to the SCA that may have additional or different impacts:	Revisions to the SCA that do not have any impact on this element of the environment
<p><b>Energy and Natural Resources</b></p> <p><b>Construction and operation impacts identified in the Final EIS:</b> The Final EIS identified a list of resources that would be consumed to construct and operate the project. The FEIS also identified the energy that would be produced by the project.</p> <p>Mitigation for consumption of natural resources consisted of conserving resources using industry standard BMP's and coordinating with providers so that other users in the area would not experience interruptions</p> <p><b>Did the Final EIS anticipate significant adverse impacts?</b> The Final EIS did not anticipate any significant adverse environmental impacts on natural resources. The proposed project would consume approximately 42,457,356 MMBtu of natural gas annually in the production of electricity and steam for the BP Cherry Point Refinery and electrical power for distribution on the Bonneville transmission system.</p> <p><b>If approved, will the revisions to the SCA have any new or additional significant adverse impacts?</b> New or additional significant adverse impacts on natural resources are not anticipated. If only Phase I is constructed, the project would consume less resources.</p>	<p><b>1 a. Phasing</b> <b>1 b. Selection of GE or Siemens turbines</b> Phasing of the project would reduce consumption of Energy and natural resources proportionally in the short term. A build-out of only Phase I of the project would produce less power.</p> <p><b>3. Lengthen construction from 27 to 33 months.</b> A longer construction period would further decrease the likelihood that other users in the area may experience lack of availability of resources consumed by the project.</p>	<p><b>2. Use of treated refinery fuel gas in duct burners</b> Not anticipated to impact the available of energy and natural resources for operation of the project. Would allow added value by increasing project efficiency through combustion of the fuel gas.</p> <p><b>4. Use of Aqueous vs. Anhydrous Ammonia</b></p> <p><b>5. Use of IBC 2003</b></p> <p><b>6. Determine requirements for stack silencers through final project design.</b></p> <p><b>7. Change Description of the Ferndale Pipeline compressor facilities.</b></p>
<p><b>Noise</b></p> <p><b>Final EIS construction impacts:</b> Two sources of noise impacts were identified during construction: construction activities proper, and increased traffic as a result of construction employee commutes, and delivery service vehicles.</p> <p><b>Final EIS operation impacts</b> For operation, nearby receptors would experience a perceptible increase in noise.</p> <p><b>Did the Final EIS anticipate significant adverse impacts?</b> The Final EIS concluded that none of the receptors in the modeling program would experience significant increases in noise levels. Implementing BMPs during the construction of the project will reduce the temporary construction noise impacts at nearby receptors. Thus, no significant unavoidable adverse impacts are associated with construction or operation of the project.</p> <p><b>If approved, will the revisions to the SCA have any new or additional significant adverse impacts?</b> Because BP would be required to meet the noise emission conditions agreed to with Whatcom County regardless of whether Phase I or both Phases are constructed, the noise impacts would be less, or the same as originally presented in the Final EIS. New or additional significant adverse impacts on the noise environment would not occur.</p>	<p><b>1 a. Phasing</b> The noise that would occur during Phase I construction would be substantially the same as that originally anticipated.</p> <p>If Phase II is built out, the construction period for Phase II would represent an additional period of time that local residences would be subject to construction noise from the project.</p> <p><b>1 b. Selection of GE or Siemens turbines</b> See discussion regarding stack silencers. Selection of the equipment would be taken into account in the design process.</p> <p><b>3. Lengthen construction from 27 to 33 months.</b> Increasing the construction period would also increase the time period that the project vicinity is exposed to construction noise and vehicle traffic. However, this is not expected to be significant impact given that BP will implement noise reduction practices as noted in the Final EIS.</p> <p><b>6. Determine requirements for stack silencers through final project design.</b> The original permitting document requires BP to install stack silencers on the HRSG stacks. BP also agreed to meet noise limits established through the settlement agreement with Whatcom County.</p>	<p><b>2. Use of treated refinery fuel gas in duct burners</b></p> <p><b>4. Use of Aqueous vs. Anhydrous Ammonia</b></p> <p><b>5. Use of IBC 2003</b></p> <p><b>7. Change Description of the Ferndale Pipeline compressor facilities.</b></p>

Element of the Environment	Revisions to the SCA that may have additional or different impacts:	Revisions to the SCA that do not have any impact on this element of the environment
(Noise – continued)	BP now proposes to determine through detailed design if stack silencers are needed to meet the Whatcom County agreement limits. A possible outcome of this process is that the project is designed without the silencers, yet does not meet the noise limits established by the County agreement when constructed. In that case BP would be required to retrofit the project to meet the limits. Local residences could experience temporary higher levels of noise until the retrofits have been installed.	
<p><b>Land –Use</b></p> <p><b>Construction and operation impacts identified in the Final EIS:</b> Construction of the project would entail the conversion of 195 acres vacant land to industrial areas. 110 of these areas would be permanently altered for use as wetlands mitigation. Construction and operation of the project is consistent with Whatcom County Land Plans and Zoning Codes.</p> <p><b>Did the Final EIS anticipate significant adverse impacts?</b> No significant unavoidable adverse impacts were expected for land use as a result of the proposed project. The project’s conversion of Applicant-owned undeveloped vacant and agricultural land on the project site to industrial and utility right-of-way uses would be consistent with the Whatcom County Comprehensive Plan and the Cherry Point Major Industrial Area UGA designation and existing industrial zoning of the site.</p> <p><b>If approved, will the revisions to the SCA have any new or additional significant adverse impacts?</b> The proposed industrial nature of the project , nor its footprint are changing, therefore there are no new or additional significant adverse impacts on land-use.</p>		<p><b>1 a. Phasing</b> <b>1 b. Selection of GE or Siemens turbines</b> Phasing would not change the nature of the project, and land-use of the project location continues to be industrial, as permitted by Whatcom County Land Plans and Zoning Codes.</p> <p>Because the footprint of the project is unchanged additional acreage is not being converted from one use to another.</p> <p><b>2. Use of treated refinery fuel gas in duct burners</b></p> <p><b>3. Lengthen construction from 27 to 33 months.</b></p> <p><b>4. Use of Aqueous vs. Anhydrous Ammonia</b></p> <p><b>5. Use of IBC 2003</b></p> <p><b>6. Determine requirements for stack silencers through final project design.</b></p> <p><b>7. Change Description of the Ferndale Pipeline compressor facilities.</b></p>
<p><b>Visual Resources light and Glare</b> <b>Final EIS construction impacts::</b></p> <ul style="list-style-type: none"> <li>- -visibility of construction activities (low to moderate) from Grandview and residences/farm along Kickerville</li> <li>- - visibility of construction of transmission system interconnection</li> </ul> <p><b>Final EIS operation impacts:</b></p> <ul style="list-style-type: none"> <li>- low to moderate impacts due to project</li> <li>- occasional water droplet plume</li> <li>- transmission line – permanent visual impacts</li> </ul>	<p><b>1 a. Phasing</b> Phasing construction of the project would entail visual construction impacts during both construction of phase I and then Phase II. Because the main elements of the project would be installed in Phase I, the visual impact of construction activities during phase II would be lower.</p> <p>Visual impacts of the transmission line and of the project once in operation would be the same if phasing occurred.</p>	<p><b>1 b. Selection of GE or Siemens turbines</b></p> <p><b>2. Use of treated refinery fuel gas in duct burners</b></p> <p><b>4. Use of Aqueous vs. Anhydrous Ammonia</b></p> <p><b>5. Use of IBC 2003</b></p>

Element of the Environment	Revisions to the SCA that may have additional or different impacts:	Revisions to the SCA that do not have any impact on this element of the environment
<p>(Visual resources – continued)</p> <p><b>Did the Final EIS anticipate significant adverse impacts?</b> No significant unavoidable adverse impacts on visual resources were identified.</p> <p><b>If approved, will the revisions to the SCA have any new or additional significant adverse impacts?</b> There would be no new or additional significant adverse impacts on visual resources.</p>	<p><b>3. Lengthen construction from 27 to 33 months.</b> Temporary impacts to visual resources from construction would last longer but would not be more adverse.</p>	<p><b>6. Determine requirements for stack silencers through final project design.</b></p> <p><b>7. Change Description of the Ferndale Pipeline compressor facilities.</b></p>
<p><b>Population, Housing and Economics.</b></p> <p><b>Final EIS construction impacts:</b></p> <ul style="list-style-type: none"> <li>- number of monthly/peak employees for the site</li> <li>- indirect workforce associated with project</li> <li>- tax revenues to County</li> <li>- potential relocating of workers to County</li> </ul> <p><b>Final EIS operation impacts:</b></p> <ul style="list-style-type: none"> <li>- 30 full time jobs</li> <li>- Generation of local and state taxes</li> </ul> <p><b>Did the Final EIS anticipate significant adverse impacts?</b> No significant unavoidable adverse impacts on population, housing, or economics were identified. Increases in population and housing demand created by construction and operation of the cogeneration facility would be relatively low compared to the population and housing market in Whatcom and Skagit counties. Also, because of the relatively small number of relocating employees created by the cogeneration facility, the project is not expected to place significant additional demands on local public services.</p> <p><b>If approved, will the revisions to the SCA have any new or additional significant adverse impacts?</b> Changes in the project are not expected to create any additional demand on local housing or public services.</p>	<p><b>1 a. Phasing</b> The work force required to construct and operate Phase I would be substantially the same as that for the project originally permitted. If Phase II was constructed, additional temporary employment would be created at a later date for construction activities.</p> <p><b>3. Lengthen construction from 27 to 33 months.</b> Construction employment would be spread over a longer period of time.</p>	<p><b>1 b. Selection of GE or Siemens turbines</b></p> <p><b>2. Use of treated refinery fuel gas in duct burners</b></p> <p><b>4. Use of Aqueous vs. Anhydrous Ammonia</b></p> <p><b>5. Use of IBC 2003</b></p> <p><b>6. Determine requirements for stack silencers through final project design.</b></p> <p><b>7. Change Description of the Ferndale Pipeline compressor facilities.</b></p>
<p><b>Public Services and Utilities/Recreation</b></p> <p><b>Final EIS construction impacts::</b></p> <ul style="list-style-type: none"> <li>- short impacts to recreation facilities due to construction traffic</li> <li>- potential increase in enrollment of local schools</li> </ul>	<p><b>3. Lengthen construction from 27 to 33 months.</b> Temporary construction traffic impacts to recreation facilities will last a longer time.</p>	<p><b>1 a. Phasing</b></p> <p><b>1 b. Selection of GE or Siemens turbines</b> Because the nature of the facility will not change, agreements for emergency services with local providers will not be substantially affected. BP is required to prepare both a construction and an operations emergency plan</p>

Element of the Environment	Revisions to the SCA that may have additional or different impacts:	Revisions to the SCA that do not have any impact on this element of the environment
<p>(Public Services - continued)</p> <p><b>Final EIS operation impacts:</b></p> <ul style="list-style-type: none"> <li>- 30 new jobs</li> <li>- Relocation of families within the Blaine School District</li> <li>- In emergencies, local government emergency responders would be called upon.</li> </ul> <p><b>Did the Final EIS anticipate significant adverse impacts?</b> No significant unavoidable adverse impacts on public services or utilities were identified. The Applicant would extend the fire, security, and emergency medical resources of the refinery to cover all but the most extreme emergencies.</p> <p><b>If approved, will the revisions to the SCA have any new or additional significant adverse impacts?</b> Changes to the project would not result in new or additional significant adverse impacts. Impacts to public services and utilities/recreation would be spread out over the entire construction periods of Phase I and II, and would not exceed the levels originally anticipated.</p>	<p><b>4. Use of Aqueous vs. Anhydrous Ammonia</b> Construction – no additional impacts. Operation – the use of aqueous ammonia will not create additional impacts. Overall, risks to workers and the population will be lower with the use of aqueous ammonia because the impacts of spills are less adverse</p>	<p>which describes coordination that will be established with local emergency responders.</p> <p>Selection of GE vs. Siemens turbines would not have any effect on public services and utilities.</p> <p><b>2. Use of treated refinery fuel gas in duct burners</b></p> <p><b>5. Use of IBC 2003</b></p> <p><b>6. Determine requirements for stack silencers through final project design.</b></p> <p><b>7. Change Description of the Ferndale Pipeline compressor facilities.</b></p>
<p><b>Transportation</b></p> <p><b>Final EIS construction impacts::</b></p> <ul style="list-style-type: none"> <li>- 650-1200 average weekday trips during a 25 month time period</li> <li>- One way trips to import fill and construction materials to the site</li> <li>- LOS F for SR 548/Portal Way</li> </ul> <p><b>Final EIS operation impacts:</b></p> <ul style="list-style-type: none"> <li>- 140 weekday trips</li> <li>- LOS D at SR548/Portal Way</li> </ul> <p><b>Did the Final EIS anticipate significant adverse impacts?</b> No significant unavoidable adverse impacts on surface or rail transportation systems are anticipated. During regular operation of the facility, intersection LOS are within acceptable limits. During construction, intersection LOS are acceptable except for one location, which exceeds LOS standards. At the completion of facility construction, all intersections operate within acceptable limits.</p> <p><b>If approved, will the revisions to the SCA have any new or additional significant adverse impacts?</b> New or additional significant adverse impacts on transportation would not occur, as all mitigation required by the SCA would be implemented during construction of Phase I.</p>	<p><b>1 a. Phasing</b> Phasing – traffic impacts from the construction of Phase I are expected to be the same or less than the project originally permitted. (See also item 3 regarding change in construction schedule).</p> <p>If/when phase II is constructed, some of these traffic impacts may occur again. However, they would do so at a lower level, because permanent mitigation measures (i.e. work performed under letter of understanding with Washington State Department of Transportation) would already be in place.</p> <p><b>3. Lengthen construction from 27 to 33 months.</b> BP expects that with a longer construction period, and a smaller project for Phase I, fewer activities will overlap, and as a result, traffic impacts would be lower than originally anticipated. There will be fewer construction worker trips, and fewer construction material/equipment hauls.</p> <p><b>4. Use of Aqueous vs. Anhydrous Ammonia</b> Using aqueous ammonia will result in more product deliveries to the project during operation. Delivery of the ammonia solution will require approximately 40-60 trips per year, as opposed to 23 deliveries if anhydrous ammonia was used. This increase is not expected to create a significant adverse impact, as the local roads already accommodate an average of 60 trucks that make deliveries to the refinery every day.</p>	<p><b>1 b. Selection of GE or Siemens turbines</b></p> <p><b>2. Use of treated refinery fuel gas in duct burners</b></p> <p><b>5. Use of IBC 2003</b></p> <p><b>6. Determine requirements for stack silencers through final project design.</b></p> <p><b>7. Change Description of the Ferndale Pipeline compressor facilities.</b></p>

Element of the Environment	Revisions to the SCA that may have additional or different impacts:	Revisions to the SCA that do not have any impact on this element of the environment
<p><b>Cultural Resources</b></p> <p><b>Final EIS construction impacts::</b> - construction may unearth cultural resources not previously known or identified</p> <p><b>Final EIS operation impacts:</b> - no impacts anticipated.</p> <p><b>Did the Final EIS anticipate significant adverse impacts?</b> Significant unavoidable adverse impacts on cultural resources were not expected to result from construction, operation, and maintenance of the proposed project because cultural resources were not anticipated to be affected.</p> <p><b>If approved, will the revisions to the SCA have any new or additional significant adverse impacts?</b> Because the foot print of the project is not changing, and with the existing mitigation measures being implemented, no new or additional significant adverse impacts are expected on cultural resources.</p>	<p><b>1 a. Phasing</b> Construction impacts to cultural resources during construction of Phase I would be no different from those already considered for the original project. Impacts would only be expected for any foot print that required disturbance, Phase I does not increase the disturbed foot print.</p> <p>Construction impacts would only occur in Phase II if Phase II disturbs new ground.</p>	<p><b>1 b. Selection of GE or Siemens turbines</b></p> <p><b>2. Use of treated refinery fuel gas in duct burners</b></p> <p><b>3. Lengthen construction from 27 to 33 months.</b> The potential for discovery of cultural resources is a factor of ground disturbance, not length of construction. No impact is expected from this change.</p> <p><b>4. Use of Aqueous vs. Anhydrous Ammonia</b></p> <p><b>5. Use of IBC 2003</b></p> <p><b>6. Determine requirements for stack silencers through final project design.</b></p> <p><b>7. Change Description of the Ferndale Pipeline compressor facilities.</b></p>
<p><b>Health and Safety</b></p> <p><b>Final EIS construction impacts::</b> - typical of the risks associated with the construction of a large industrial site</p> <p><b>Final EIS operation impacts:</b> - typical risks associated with the operation of a large industrial site. Including release of anhydrous ammonia</p> <p><b>Did the Final EIS anticipate significant adverse impacts?</b> With implementation of the Applicant's proposed project design and mitigation measures, no significant unavoidable adverse impacts to workers or to the general public's health and safety resulting from construction, operation, and maintenance of the proposed project and ancillary infrastructure have been identified.</p> <p><b>If approved, will the revisions to the SCA have any new or additional significant adverse impacts?</b> Because the nature of the project is not changing, and since BP will continue to implement all health and safety mitigation measures required by the Final EIS and the SCA, no new or additional significant adverse environmental impacts are anticipated on health and safety. Because the project would now use aqueous ammonia, the potential for releases of anhydrous ammonia is removed.</p>	<p><b>4. Use of Aqueous vs. Anhydrous Ammonia</b> Aqueous ammonia poses less risk when stored and handled. BP would implement standard industry practices required for the storage and handling of this product. Allowing use of aqueous ammonia would not create any significant adverse impacts.</p> <p><b>5. Use of IBC 2003</b> Use of the most current building code would ensure that the project is constructed to required specifications, including safety requirements.</p>	<p><b>1 a. Phasing</b></p> <p><b>1 b. Selection of GE or Siemens turbines</b></p> <p><b>2. Use of treated refinery fuel gas in duct burners</b></p> <p><b>3. Lengthen construction from 27 to 33 months.</b> Health and safety plans would be implemented during the entire construction period.</p> <p><b>6. Determine requirements for stack silencers through final project design.</b></p> <p><b>7. Change Description of the Ferndale Pipeline compressor facilities.</b></p>

**BP Cherry Point Cogeneration Project  
Final EIS, August 2004**

**Summary of Impacts and Mitigation Measures**

**Table 1-2: Summary of Impacts and Mitigation Measures**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
<b>Earth</b>			
Construction	<ul style="list-style-type: none"> <li>• Extensive grading of the site is not anticipated to be required, however some unsuitable materials may require removal from the site for disposal at approved locations.</li> <li>• The total quantity of imported fill material is estimated to be approximately 126,000 cubic yards (75,600 tons).</li> <li>• Site grading and stockpiling activities would expose soils and would increase the potential for erosion.</li> <li>• The potential exists for contacting contaminated soils during excavation activities at the BP Cherry Point Refinery and at the Alcoa Intalco Works facilities because of industrial practices that have occurred at these sites since the 1970s.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the project would not be constructed, therefore there would not be any construction impacts for this element of the environment.</li> </ul>	<p><u>Mitigation Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>• Best Management Practices (BMPs) would be implemented for erosion control and prevention. The BMPs would be described in a Stormwater Pollution Prevention (SWPP) plan and Temporary Erosion and Sedimentation Control (TESC) plan to be submitted to EFSEC prior to construction.</li> <li>• If soil contamination were found during site clearing, grading, and trenching, the activities would be halted until the contamination can be identified and contaminated soils handled in the appropriate manner.</li> <li>• Excavated materials of acceptable quality would be reused as much as possible.</li> <li>• Excess materials would be disposed of at permitted fill sites or would be placed where they would not easily erode.</li> <li>• Disturbed areas would be revegetated by seeding or hydroseeding.</li> <li>• Seed mixes would be selected that are known to effectively stabilize erodible soils in the northwestern portion of the State of Washington.</li> <li>• Soil stockpiles would be seeded or covered with an emulsion and surrounded by silt fences and straw bales or sand bags, where necessary, to prevent excessive erosion by wind or rain.</li> <li>• Sprinkler systems may be employed to sustain vegetation on bermed areas with high exposure to the erosive forces of wind.</li> <li>• Erosion control measures for construction, such as silt fencing, straw bales, and tarps, would be inspected and maintained.</li> <li>• A Spill Prevention Control and Countermeasure (SPCC) Plan would be prepared. The plan would include procedures to implement structural, operational, and treatment BMPs.</li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
			<ul style="list-style-type: none"> <li>• Stormwater runoff from the construction site would be collected and routed to a sediment control system.</li> <li>• Sediment control measures, such as an oil-water separation system and detention ponds, would be sized for storm events ranging from 6-month, 24-hour up to the 100-year, 24-hour event.</li> </ul>
Operation	<ul style="list-style-type: none"> <li>• During operation, there would be the potential for a large seismic event to impact cogeneration facility operations (i.e., the production of electricity).</li> <li>• During operation, the greatest risk to the project from volcanic activity would be from tephra (ash) fall.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the project would not be constructed, therefore there would not be any operation impacts for this element of the environment.</li> </ul>	<p><u>Mitigation Proposed by Applicant</u></p> <ul style="list-style-type: none"> <li>• The characteristics of the soils would be determined during the geotechnical analysis completed during detailed project design. If the soils prove to be susceptible to induced amplification, the project design would incorporate protection measures against such seismic events.</li> </ul>
<b>Air Quality</b>			
Construction	<ul style="list-style-type: none"> <li>• Emissions during the construction process would consist of fugitive dust and combustion exhaust emissions from construction equipment and vehicles. It is not anticipated that these emissions would exceed the NAAQS or WAAQS.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the project would not be constructed, therefore there would not be any construction impacts for this element of the environment.</li> </ul>	<p><u>Mitigation Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>• Roads would be covered with gravel to minimize the potential for fugitive dust emissions from vehicle traffic.</li> <li>• Late in construction, gravel roads would be paved to further reduce emission of fugitive dust.</li> <li>• Spraying exposed soil with water would reduce PM<sub>10</sub> emissions and particulate matter deposition.</li> <li>• Planting vegetative cover as soon as appropriate after grading would reduce windblown particulate matter in the area.</li> <li>• Use appropriate dust control measures to minimize windblown dust from transportation of materials by truck, which may include wetting and covering.</li> <li>• Use appropriate measures to reduce particulate matter from wheels before entering roads, which may include wheel washers.</li> <li>• Routing and scheduling construction trucks so as to reduce delays to traffic during peak travel times would reduce secondary air quality impacts caused by a reduction in traffic speeds while waiting for construction trucks.</li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
			<ul style="list-style-type: none"> <li>Maintain construction equipment in good working order to reduce CO and NOx emissions.</li> </ul>
Operation	<ul style="list-style-type: none"> <li>During operation, emissions from the cogeneration facility would include SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, VOCs, CO, and NO<sub>2</sub>, however all pollutant concentration levels would be well below National Ambient Air Quality Standards or Washington Ambient Air Quality Standards.</li> <li>Emissions of toxic air pollutants would result from the combustion of natural gas in the cogeneration facility, however, modeled maximum concentrations are less than the state's Acceptable Source Impact Levels.</li> <li>The cogeneration facility would provide steam to the refinery and allow existing refinery boilers to be shut down, thereby providing an offsetting air quality benefit.</li> <li>Cogeneration emissions are projected to contribute to a decrease in visibility at the Olympic National Park.</li> <li>Fogging from the cooling tower vapor plume may occur for 650 to 1,650 feet for a total of 2.5 hours a year in the northeast or northwest directions from the tower.</li> </ul>	<ul style="list-style-type: none"> <li>Under the No Action Alternative, the project would not be constructed, therefore there would not be any operation impacts for this element of the environment. Existing less efficient refinery boilers would continue to be operated. Less efficient fossil fuel combustion technologies, which may be added to fill long term regional power needs, would likely produce more air emissions per KW-hr produced.</li> </ul>	<p><u>Mitigation Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>Only natural gas would be burned in the combustion turbines and duct burners, and only low-sulfur diesel fuel in the emergency generator and firewater pump.</li> <li>BACT would be used at the cogeneration facility. BACT to control criteria pollutant emissions include:               <ul style="list-style-type: none"> <li>Dry low NO<sub>x</sub> combustion technology;</li> <li>Selective catalytic reduction technology;</li> <li>Oxidation catalyst controls incorporated into the HRSGs to reduce CO emissions and VOCs.</li> </ul> </li> <li>BACT to control toxic emissions include:               <ul style="list-style-type: none"> <li>Use of clean natural gas as the only fuel for the combustion gas turbines and HRSG duct burners; and</li> <li>Use of oxidation catalyst unit on each HRSG duct burner.</li> </ul> </li> <li>As long as the Applicant owns the cogeneration facility, mitigation of greenhouse gases (GHG) would be offset by GHG reduction within BP West Coast Products, LLC worldwide operations.</li> <li>If the ownership of the cogeneration facility is transferred to another party, then mitigation of GHG emissions would be provided by:               <ul style="list-style-type: none"> <li>The proposed CO<sub>2</sub> emission standard would be 0.675 lbs. CO<sub>2</sub>/kWh,</li> <li>Emissions in excess of the emission standard would be mitigated either by (a) an annual payment of \$0.85/ton CO<sub>2</sub>, or (b) GHG reductions obtained by the new owner, or (c) a combination of both.</li> <li>Mitigation would be satisfied annually for 30 years.</li> </ul> </li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
			<ul style="list-style-type: none"> <li>- If BP retains partial equity in the facility, it would continue to offset the associated portion of GHG emissions from the project.</li> <li>- Startup and shutdown procedures would be followed as developed by manufacturers and documented in the Applicant's Startup, Shutdown and Malfunction Procedures Manual.</li> <li>- Existing refinery boilers would be removed within six months of commercial operation.</li> </ul>
<b>Water Resources</b>			
Construction	<ul style="list-style-type: none"> <li>• Water from various sources would be used to support construction, including:               <ul style="list-style-type: none"> <li>• Approximately 7 million gallons of trucked water from the refinery would be used for dust control; and</li> <li>• Approximately 21.5 million gallons of fresh water from the public utility district would be used for steam blow testing and hydrostatic testing.</li> </ul> </li> <li>• Stormwater flow would be altered to control erosion and sedimentation during construction</li> <li>• Groundwater recharge would be reduced under the project site during construction, but would increase in the wetlands north of Grandview Road.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the project including proposed wetland mitigation areas would not be constructed. Therefore, there would not be any construction impacts for this element of the environment.</li> </ul>	<p><u>Mitigation Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>• Stormwater would be collected, treated, and discharged off-site within the same drainage basin allowing groundwater recharge in the same hydrological system.</li> <li>• A Stormwater Pollution Prevention (SWPP) plan would be developed prior to construction, the SWPP plan would include Temporary Erosion and Sedimentation Control (TESC) plans.</li> <li>• The SWPP and TESC would specify Best Management Practices for erosion control during construction. All erosion control BMPs would be in place and functioning prior to construction.</li> <li>• Stormwater runoff from project site roads and other impervious areas would be collected in an oil-water separator to draw off any trace oil and then route the stormwater to a detention pond to allow sediment to settle out.</li> <li>• Stormwater collected from the construction site would be routed to an unlined surface detention pond and allowed to infiltrate or discharge to wetlands within the same hydrologic basin. The net effect would be returning the collected stormwater to the same hydrologic system for recharge.</li> <li>• Stormwater runoff from around the site would be continue to be routed to existing ditch along the Blaine Road and then discharged to Terrell Creek.</li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
			<ul style="list-style-type: none"> <li>• Diversion ditches would prevent surface water runoff from areas outside the cogeneration site from entering the site.</li> <li>• The Applicant would not construct a perimeter ditch along the west side of Wetland C.</li> <li>• Stormwater runoff from within the cogeneration site will be contained, collected, and routed to the stormwater treatment and detention system.</li> </ul>
Operation	<ul style="list-style-type: none"> <li>• During operation, the cogeneration facility would use between 2,244 and 2,316 gpm of process water for cooling and other facility functions. The water would either be recycled cooling water from the Alcoa Intalco Works aluminum smelter if that facility is in operation, or water received directly from the PUD if the Alcoa Intalco facility is not in operation.</li> <li>• The cogeneration facility would use between 1 and 5 gpm of potable water supplied by the Birch Bay Water and Sewer District.</li> <li>• During operation, the cogeneration facility would generate industrial wastewater from:               <ul style="list-style-type: none"> <li>- Treatment of raw water to produce high quality boiler feedwater (BFW) and refinery return condensate treatment;</li> <li>- Collection of water and/or other minor drainage from various types of equipment;</li> <li>- Cooling tower blowdown; and</li> <li>- Sanitary waste collection.</li> </ul> </li> <li>• Runoff from surfaces containing contaminants could impact surface and groundwater.</li> <li>• Groundwater recharge impacts would be the same as for construction.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the project including proposed wetland mitigation areas would not be constructed, therefore there would not be any operation impacts for this element of the environment.</li> </ul>	<p><u>Mitigation Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>• Wastewater would not discharge directly into any watercourses (including creeks, lakes, wetlands, ditches, or the marine environment), or storm drains, nor will it require any new outfalls.</li> <li>• Stormwater runoff quantities would be controlled by the stormwater collection and treatment system.</li> <li>• Stormwater collected from the cogeneration site would be routed to an unlined surface detention pond and allowed to infiltrate or discharge to wetlands within the same hydrologic basin. The net effect would be returning the collected stormwater to the same hydrologic system for recharge.</li> <li>• The SWPP plan for operation would include structural and operational BMPs, a Spill Prevention, Control and Countermeasure (SPCC) plan, a final stormwater management plan, and general operating procedures.</li> <li>• Industrial wastewater would be treated in the refinery’s wastewater treatment system prior to discharge to the Strait of Georgia.</li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
	<ul style="list-style-type: none"> <li>During operation of the project, surface water from the cogeneration facility would be discharged to the CMA 2 site, increasing flows to the site. Increased flows the site, combined with topological modifications proposed for the site, is expected to increase hydraulic residence time on the site, thus enhancing existing wetlands and restoring wetlands that have been effectively drained.</li> </ul>		<ul style="list-style-type: none"> <li>Sanitary wastewater would be routed to the Birch Bay Sewer District's wastewater treatment plant for treatment and discharge to the Strait of Georgia.</li> </ul>
<b>Water Quality</b>			
Construction	<ul style="list-style-type: none"> <li>Wastewater containing contaminants would be generated during plant construction and pre-operation testing.</li> <li>During construction of the project, potential water quality impacts could be caused by:               <ul style="list-style-type: none"> <li>Sediment-laden stormwater discharged from the project site during construction; and</li> <li>Spills and leaks of chemicals, especially a large volume spill, during construction could impact stormwater, surface water (wetlands), and groundwater.</li> </ul> </li> <li>Water used for HRSG steam-blow tests would be discharged as steam to the atmosphere. If contaminants are present in the water, the contaminants may be discharged to the atmosphere with the steam.</li> <li>Runoff from surfaces containing contaminants could impact surface and groundwater.</li> <li>Sanitary waste generation is anticipated to be 500 gallons per day during construction of the project.</li> </ul>	<ul style="list-style-type: none"> <li>Under the No Action Alternative, the project would not be constructed; therefore there would not be any construction impacts for this element of the environment.</li> </ul>	<p><u>Mitigation Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>Hydrostatic test water would be discharged to the refinery's wastewater treatment system and then discharged to the Strait of Georgia. If hydrostatic test water does not meet the water discharge quality, other offsite disposal options would be necessary.</li> <li>SWPP plan for construction activities would be prepared for the various elements of the project, and would include stormwater management procedures, Temporary Erosion and Sedimentation Control (TESC) plan for each phase of project, the specification of all necessary BMPs for construction activities as specified in the Stormwater Management Manual for Western Washington (Ecology 2001), and include general operation and maintenance descriptions of the BMPs used on site.</li> <li>All erosion control BMPs would be in place and functioning prior to the start of construction.</li> <li>To minimize the potential release or spills of chemicals during construction, best management practices, as specified in the SWPP plans, would be employed. These would include good housekeeping measures, inspections, containment facilities, minimum onsite inventory, and spill prevention practices.</li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
			<p><u>Additional Mitigation Measures</u></p> <ul style="list-style-type: none"> <li>If project approval is recommended, EFSEC would develop State Waste Discharge and National Pollutant Discharge Elimination System Permit conditions for construction of the cogeneration facility. The permit would specify construction stormwater effluent limits and monitoring requirements intended to reduce or eliminate water quality impacts. Monitoring of stormwater would commence at the beginning of construction.</li> </ul>
<p>Operation</p>	<ul style="list-style-type: none"> <li>Spills and leaks of chemicals, especially a large volume spill, during operation could affect stormwater, surface water (wetlands), and groundwater.</li> <li>The cogeneration facility would produce 190 gpm on average (assuming 15 cycles of concentration in the cooling tower) of non-recyclable process wastewater which would be sent to the BP refinery's wastewater treatment system.</li> <li>Between 1 and 5 gpm of sanitary waste would be generated by the cogeneration facility.</li> <li>Periodic washing of the gas turbines would generate up to approximately 2,300 gallons of wash water per turbine per quarter. The wash water would likely contain dirt deposits removed from the blades, along with detergents used for the cleaning operation.</li> <li>Operation and maintenance of the industrial water supply pipeline and associated components at the Alcoa Intalco Works could result in potential erosion/sedimentation and chemical spills that could impact surface water and groundwater quality.</li> </ul>	<ul style="list-style-type: none"> <li>Under the No Action Alternative, the project would not be constructed; therefore there would not be any operation impacts for this element of the environment.</li> </ul>	<p><u>Mitigation Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>SWPP plan for operational activities would be prepared for the cogeneration facility, and would include stormwater management procedures. The SWPP plan for operation would include structural and operational BMPs; a SPCC plan; and a final stormwater management plan.</li> <li>Prior to operation of the cogeneration facility, a SPCC plan would be prepared the plan would contain procedures for spill response, containment, and prevention procedures; and structural, operational, and treatment BMPs.</li> <li>Safeguards incorporated to mitigate the risks of a release to the environment from stored operational chemicals include secondary containment, tank overflow protection, routine maintenance, safe handling practices, supervision of all loading/unloading by plant personnel and truck drivers, and appropriate training of operation and maintenance staff.</li> <li>Industrial wastewater from the cogeneration facility would be treated in the refinery's wastewater treatment system prior to discharge to the Strait of Georgia.</li> <li>Sanitary wastewater would be routed to the Birch Bay wastewater treatment plant for treatment and discharge to the Strait of Georgia.</li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
			<p><u>Additional Mitigation Measures</u></p> <ul style="list-style-type: none"> <li>If project approval is recommended, EFSEC would develop State Waste Discharge and National Pollutant Discharge Elimination System Permit conditions for operation of the Cogeneration Facility. Permit conditions would include discharge limitations, monitoring requirements, reporting and record keeping requirements, operation and maintenance plan for water quality treatment facilities, development of SPCC and hazardous waste management plans, and SWPP plan.</li> </ul>
<b>Wetlands</b>			
Construction	<ul style="list-style-type: none"> <li>Construction of the project would disturb 35.52 acres of existing wetland areas, including 30.66 acres that would be permanently disturbed and 4.86 acres that would be temporarily disturbed. Affected wetlands would be located at the cogeneration facility site (Wetlands A, B1, B2, B3, C, and D), the refinery interface (Wetlands F, G, J, and H), and the transmission system.</li> <li>Reduced wetland functions would include floodwater detention and retention, flood flow desynchronization, groundwater recharge and discharge, and water quality improvement.</li> </ul>	<ul style="list-style-type: none"> <li>Under the No Action Alternative, the project including proposed wetland mitigation, would not be constructed. Therefore no construction impacts or wetland enhancement would occur.</li> </ul>	<p><u>Mitigation Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>Mitigation measures consistent with those generally required by the Corps and Ecology for Category III wetlands within Western Washington would be implemented during construction to protect wetlands that would not be filled. Wetlands not disturbed would be protected using silt fencing and haybales. Wetlands temporarily disturbed and would be restored after the project construction is completed.</li> <li>To compensate permanently disturbed wetlands the Applicant has designed a compensatory mitigation plan in consultation with state, and federal agencies. The proposed plan outlines the enhancement of 110 acres north of Grandview Road.</li> <li>To minimize and control the spread of noxious weed species, all equipment would be cleaned before leaving the site.</li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
Operation	<ul style="list-style-type: none"> <li>Other than those communities affected by construction, operation of the project would not affect existing wetland systems.</li> </ul>	<ul style="list-style-type: none"> <li>Under the No Action Alternative, the project would not be constructed, therefore there would not be any impacts for this element of the environment. The proposed wetland enhancement and the creation of new wetlands would not occur.</li> </ul>	<p><u>Mitigation Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>A 10-year monitoring plan would be implemented to measure mitigation success.</li> </ul>
<b>Agricultural Land, Crops, and Livestock</b>			
Construction	<ul style="list-style-type: none"> <li>The proposed project elements would result in the development or modification of land that Whatcom County has identified as Category I and II prime farmland soils and mapped as APO soils and Agricultural Open Space.</li> <li>Reconstruction of Custer/ Intalco Transmission Line No. 2 would likely result in the conversion of some prime farmland to utility uses within the existing Bonneville Transmission Corridor.</li> <li>Construction of the cogeneration facility, Access Road 1, and Laydown Areas 2 and 4 would result in a direct and permanent loss of approximately 2.6 acres of existing hybrid black cottonwood.</li> <li>The proposed compensatory wetland mitigation plan would preclude the continued use of mitigation area CMA 1 for cattle grazing.</li> </ul>	<ul style="list-style-type: none"> <li>Under the No Action Alternative, the project would not be constructed, therefore there would not be any impacts for this element of the construction environment.</li> </ul>	<p><u>Mitigation Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>No mitigation measures for agricultural land, crops, and livestock are proposed.</li> </ul>
Operation	<ul style="list-style-type: none"> <li>Emissions from the cogeneration facility are expected to have a negligible effect on agricultural crops and livestock.</li> </ul>	<ul style="list-style-type: none"> <li>Under the No Action Alternative, the project would not be constructed, therefore there would not be any impacts for this element of the operation environment.</li> </ul>	<ul style="list-style-type: none"> <li>No operational mitigation measures for agricultural land, crops, and livestock are proposed.</li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
<b>Upland Vegetation, Wildlife and Habitat, Fisheries, and Threatened and Endangered Species</b>			
Construction	<ul style="list-style-type: none"> <li>• Construction of the project would disturb up to 33.53 acres of existing upland vegetation, including: including grassland, shrubland, mixed coniferous/deciduous forest, coniferous forest, and deciduous forest. While adding a transmission line from Brown Road to Custer Substation would involve rebuilding an existing line in a right-of-way already cleared of tall-growing vegetation, some additional removal of individual trees potentially interfering with the rebuilt line may need to be removed in limited wooded areas for a total of about one mile along the five-mile long corridor.</li> <li>• The primary effect from project construction would be removal and loss of habitat. Grassland and wetland communities are the primary habitats that would be cleared under the proposed alternative. Other habitats that would be cleared include shrubland, mixed coniferous/deciduous forest, coniferous forest, and deciduous forest.</li> <li>• Disturbances caused by construction on the site may affect wildlife in adjacent habitats by disrupting feeding and nesting activities. Increased noise levels created by heavy machinery could cause birds to abandon their nests and may temporarily displace wildlife during construction.</li> <li>• Proposed wetland enhancement and the creation of new wetlands associated with proposed wetland mitigation sites CMA 1 and CMA 2 would result in an increase in habitat quality, would benefit wildlife species that currently use the area, and would likely attract a more diverse assortment of wildlife species.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, new facilities would not be constructed at the site, and impacts on upland vegetation, wildlife and habitat, fisheries, and threatened and endangered species associated with the proposed project would not occur. No impacts or construction would occur that would entail removal or alteration of existing habitat within the proposed project site.</li> <li>• The proposed wetland enhancement and the creation of new wetlands associated with proposed wetland mitigation sites CMA 1 and CMA 2 would not occur.</li> </ul>	<p><u>Mitigation Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>• BMPs would be implemented to protect upland vegetation communities within the proposed project site that are not disturbed during construction.</li> <li>• Native vegetation, including seed mixes with native grasses, would be used to replace vegetation, particularly areas infested by weedy species.</li> <li>• A landscaping plan would be prepared and implemented that includes long-term weed control measures.</li> <li>• Plant native trees and shrubs parallel to the south side of Grandview Road, north of the cogeneration facility site and north of the laydown areas, to the west of Blaine Road.</li> <li>• Development of the stormwater control system would maintain water quality and fishery resources in Terrell Creek</li> <li>• Development and implementation of the SWPP plan would also protect water quality and fishery resources.</li> <li>• Mitigation requirements as conditions of permits or government approvals would be implemented.</li> <li>• Construction Laydown Area 4 would be restored following construction.</li> <li>• The Applicant would restore, rehabilitate and enhance wetlands north of Grandview Road, identified as mitigation sites CMA 1 and CMA 2.</li> <li>• In accordance with the Settlement Agreement between the Applicant and Whatcom County regarding the protection of herons, earthwork activity to create the wetland mitigation sites CMA 1 and CMA 2 has been scheduled for the dry season, which coincides with the end of the fledging period, and most plantings would occur in the fall and winter when the herons are dispersed.</li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
Operation	<ul style="list-style-type: none"> <li>• Some areas currently dominated by noxious weed species may be converted to landscaped areas that would require maintenance. The establishment of noxious weed species may occur within the proposed plant site.</li> <li>• Operation and maintenance associated with the transmission corridors would include removing or topping trees to maintain a safe distance between trees and electrical lines.</li> <li>• Existing access and maintenance roads associated with transmission corridors would be maintained to prevent vegetation from growing in these areas. Vegetation that becomes established in disturbed areas such as unpaved roads are often nonnative invasive species.</li> <li>• Some wildlife habitat loss, noise, and disturbance could occur during maintenance activities within the transmission corridors.</li> <li>• Maintenance and operation activities associated with the transmission corridors could result in chemical spills that potentially could impact fish habitat.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the project would not be constructed, therefore there would not be any impacts for this element of the environment.</li> </ul>	<ul style="list-style-type: none"> <li>• Implement noxious weed control program pursuant to wetlands mitigation requirements, and maintain landscaped areas to prevent spread of noxious weeds.</li> <li>• The primary mitigation measure applicable to the proposed project is to use best engineering practices and construct the transmission towers at the minimal height allowable with no guy wires or lighting to avoid impacts on birds. The transmission lines and tower design would be defined by the Bonneville interconnection agreement.</li> <li>• See also Air Quality, Water Resources, and Water Quality.</li> <li>• The Applicant plans to maintain at least 23 acres of the wetland mitigation site (CMA 2) in open field habitat. In addition, wetland mitigation design includes improving the quality of heron habitat for heron foraging, maintaining connectivity to other existing forage areas, and enhancing areas to promote amphibian breeding habitats.</li> </ul>
<b>Energy and Natural Resources</b>			
Construction	<ul style="list-style-type: none"> <li>• Construction of the cogeneration facility would consume non-renewable resources, including:               <ul style="list-style-type: none"> <li>- 126,000 cubic yards of imported fill</li> <li>- 7,500 cubic yards of sand</li> <li>- 18,150 cubic yards of gravel</li> <li>- 25,200 cubic yards of concrete</li> <li>- 1,050 tons of steel</li> </ul> </li> <li>• Construction of the cogeneration facility would consume electrical energy for lighting and heating in construction offices, temporary lighting at the facility, and powering various pieces of construction equipment. The estimated peak electrical demand during construction is approximately 2.5 MVA at 480 V.</li> <li>• Construction of the cogeneration facility would consume approximately 592,000 gallons of petroleum products, including diesel fuel and gasoline.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the cogeneration facility would not be constructed and the consumption of energy or natural resources associated with construction of the project would not occur.</li> </ul>	<p><u>Mitigation Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>• Conservation of energy and natural resources during construction would take place through the use of industry standard BMPs. These may include the use of energy-efficient lighting, lighting of only critical areas during non-working hours, encouraging car-pooling, efficient scheduling of construction crews, minimizing idling of construction equipment, recycling of used motor oils and hydraulic fluids, and implementation of signage to remind construction workers to conserve energy and other resources.</li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
Operation	<ul style="list-style-type: none"> <li>• During operation, the cogeneration facility would consume approximately 42.5 million MBtu of natural gas per year.</li> <li>• The proposed project may exceed the transmission capacity of the Ferndale Pipeline during periods of peak demand. The Applicant estimates that up to approximately 40,000 decatherms per day of additional capacity of may be needed.</li> <li>• Operation of the cogeneration facility would consume petroleum products, primarily lubricants associated with the operation of equipment and gas and diesel fuel for vehicles around the facility</li> <li>• The cogeneration facility would use various chemicals during operation to facilitate desired chemical reactions, control water quality, and for other facility operational purposes.</li> <li>• Transmission line maintenance would require relatively small quantities of fuel for vehicles and helicopters engaged in transmission line surveillance and monitoring, and electricity to maintain and operate equipment at Custer Substation. Transmission corridor road maintenance would require the use of crushed rock, gravel, and sand during the life of the project on an as-needed basis. Periodic replacement of conductor wires, ground wires, fiber optic cables, insulators, and structural elements may be required over time.</li> <li>• Generate a nominal 720 MW of electricity, of which, approximately 85 MW would be used by the BP Cherry Point Refinery, 21 MW would be used by the natural gas compression station and other cogeneration facility auxiliary systems, and 635 MW would be exported to the Northwest power grid for use by other customers.</li> <li>• Supply approximately 4,200 million pounds (MMlb) of steam per year to the refinery.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the project would not be constructed; therefore there would not be any construction impacts for this element of the environment.</li> <li>• Under the No Action Alternative, the Applicant would likely continue to meet the electrical power needs of the refinery with a combination of onsite electrical power generation and purchasing electrical power from other sources. The existing refinery boiler system would continue to be used to meet the refinery’s steam demand. Under this alternative, the cogeneration facility would not generate and transmit electrical power for use on the Northwest power grid.</li> </ul>	<p><u>Mitigation Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>• Boiler blowdown water would be routed to the cooling tower as make up water to reduce fresh water consumption.</li> <li>• Existing utility boilers would be taken out of service and replaced with more efficient cogeneration steam generation cycle, reducing the use of natural gas resources.</li> <li>• Construction activities would be coordinated with energy and natural resource providers to ensure that other users in the area would not experience any service interruptions.</li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
<b>Noise</b>			
Construction	<ul style="list-style-type: none"> <li>• Noise produced during construction would vary depending on the construction phase underway. Maximum noise levels from most construction equipment could range from 69 to 106 decibels or dB(A) at 50 feet.</li> <li>• In addition to noise produced from onsite construction equipment, traffic volumes would increase as construction employees commute to and from work at the site. Additional transient noise would occur as a result of increased volumes of delivery and service vehicles (including trucks of various sizes) doing business at the site.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the project would not be constructed, therefore there would not be any construction or traffic noise impacts.</li> </ul>	<p><u>Mitigation Proposed by Applicant</u></p> <ul style="list-style-type: none"> <li>• To reduce construction noise, the construction industry’s management practices would be incorporated into construction plans and contractor specifications.</li> <li>• Limiting noisier construction activities to the hours of 7 a.m. and 10 p.m. would reduce construction noise during sensitive nighttime hours.</li> <li>• Construction equipment would be equipped with adequate mufflers, intake silencers, or engine enclosures.</li> <li>• Turn off construction equipment during prolonged periods of nonuse.</li> <li>• Require contractors to maintain all equipment.</li> <li>• Locate stationary equipment away from receiving properties.</li> </ul>
Operation	<ul style="list-style-type: none"> <li>• Modeling results indicate that none of the receivers would experience a perceptible increase (above 3 dBA) in noise during the daytime or evening.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the project would not be constructed, therefore there would not be any operational or equipment impacts.</li> </ul>	<p><u>Mitigation Measures Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>• The cogeneration placement and design of the facility has integrated noise mitigation measures for sound reduction.</li> <li>• Stack silencers would be incorporated into the design of the HRSG.</li> <li>• The three gas turbine generators and the steam turbine generator will be housed within enclosures.</li> <li>• Operation of the cogeneration facility would comply with regulations governing noise from industrial facilities (WAC 173-60).</li> <li>• In accordance with the Settlement Agreement with Whatcom County, the Applicant would limit noise-generating activities such that noise levels at five regional receptors would not exceed existing levels.</li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
			<ul style="list-style-type: none"> <li>• Within 180 days of the beginning of operation, the Applicant would conduct post-operation noise monitoring at the five receptors to determine compliance with the noise limitations.</li> </ul>
<b>Land Use</b>			
Construction	<ul style="list-style-type: none"> <li>• Construction of all project elements would entail the conversion of approximately 195 acres of land from predominantly undeveloped, vacant land to developed industrial uses. This acreage includes 110 acres of undeveloped and agricultural land north of Grandview Road that would be permanently altered to provide for wetland mitigation.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the project would not be constructed, therefore there would not be any construction impacts for this element of the environment.</li> </ul>	<u>Mitigation Measures Proposed by the Applicant</u> <ul style="list-style-type: none"> <li>• No mitigation measures related to land use are proposed.</li> </ul>
Operation	<ul style="list-style-type: none"> <li>• Construction and operation of the project would be consistent with Whatcom County Land Use Plans and generally consistent with the Whatcom County zoning code. The two transmission line elements would require County approval of conditional use and substantial development permits.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the project would not be constructed, therefore there would not be any impacts for this element of the environment.</li> </ul>	<u>Mitigation Measures Proposed by the Applicant</u> <ul style="list-style-type: none"> <li>• No mitigation measures related to land use are proposed.</li> </ul>
<b>Visual Resources, Light, and Glare</b>			
Construction	<ul style="list-style-type: none"> <li>• Visual impacts resulting from construction are expected to be low to moderate. Construction activities would be visible from Grandview Road, and farm buildings and residences located along Kickerville Road near the transmission system interconnection with Custer-Intalco Transmission Line No. 2. Clearing of the new transmission corridor and installation of transmission towers could be viewed temporarily while the transmission lines are under construction.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the proposed project would not be constructed and existing views of the project site would be maintained. Views to the site could be altered when the hybrid poplar trees are harvested. Because the land is zoned for industrial uses, future industrial development on the project site would be likely to occur.</li> </ul>	<u>Mitigation Measures Proposed by the Applicant</u> <ul style="list-style-type: none"> <li>• A Site Management Plan would be prepared and implemented to minimize overall visual impacts of construction activities.</li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
Operation	<ul style="list-style-type: none"> <li>• Once constructed, the project is expected to introduce low to moderate visual impacts in the immediate vicinity of the project site, depending on the viewer type and viewing distance.</li> <li>• There would be an occasional visible water droplet plume related to the operation of the cooling tower at the cogeneration facility. The visibility of the plume would depend on the ambient temperature and relative humidity.</li> <li>• From the intersection of Blaine and Grandview roads, the proposed cogeneration facility would be moderately visible due to its close proximity to the road.</li> <li>• Under Option 1, there would be no visual impacts associated with the Custer Intalco Transmission Line No. 2. Under Option 2a, the use of larger steel lattice towers may result in a slight increase in effects over the existing towers near residences because of their greater height. Under Option 2b, the closer spacing of the steel monopole towers may reduce the visual effects of individual towers, but the decreased spacing would result in more towers and may offer a slightly greater interruption of views.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the project would not be constructed, therefore there would not be any impacts for this element of the environment.</li> </ul>	<p><u>Mitigation Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>• Project elements would be painted gray. This color is intended to reduce surface glare from direct sunlight.</li> <li>• The cogeneration facility located approximately 340 feet south of the centerline of Grandview Road, creating an opportunity to plant screening trees and shrubs.</li> <li>• Project site lighting would be designed to minimize light spillover and glare.</li> </ul>
<b>Population, Housing, and Economics</b>			
Construction	<ul style="list-style-type: none"> <li>• During construction monthly employment on site would average 372 people, with peak employment of 706 individuals.</li> <li>• The indirect workforce associated with the construction stage of the project would be approximately 210 people</li> <li>• Including relocated employees from indirect labor, relocation could be as high as 180 workers</li> <li>• Tax revenue from construction of the project would accrue to Whatcom County and Washington State, from the following sources:               <ul style="list-style-type: none"> <li>- sales/use tax on equipment: \$22.8 million.</li> <li>- sales/use tax on construction services and materials: \$4.9 million.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the cogeneration facility would not be constructed. No additional employment or tax revenues would be created, and no workers would relocate to the project area.</li> </ul>	<p><u>Mitigation Measures Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>• No mitigation measures are proposed.</li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
Operation	<ul style="list-style-type: none"> <li>• Operation of the cogeneration facility would create approximately 30 full time jobs, and approximately \$200,000 per year worth of temporary positions.</li> <li>• Operation of the cogeneration facility would generate Washington State brokerage tax revenues of between \$4.5 and \$5.3 million annually.</li> <li>• Operation of the facility would generate approximately \$6 million in property tax revenues annually</li> <li>• During operation, the cogeneration facility would also pay business and occupation (B&amp;O) and public utility tax to the state of Washington. The total tax paid would likely be on the order of several million dollars per year.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the project would not be constructed; therefore there would not be any impacts for this element of the environment.</li> </ul>	<p><u>Mitigation Measures Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>• No operational mitigation measures are proposed.</li> </ul>
<b>Public Services and Utilities</b>			
Construction	<ul style="list-style-type: none"> <li>• Construction traffic associated with the project could affect the use of recreational facilities near the project site. Such effects however would be relatively short term, and would not be likely to significantly affect the public’s ability to use these facilities.</li> <li>• It is possible that families choosing to reside within the boundaries of the Blaine School District could add a relatively small number of students to that district’s enrollment, which is currently at capacity, however individual family decisions regarding where to reside would determine which schools students in those families would be eligible to attend.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the project would not be constructed, therefore there would not be any construction impacts for this element of the environment.</li> </ul>	<p><u>Mitigation Measures Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>• The Applicant would develop response protocols with the Jurisdiction Having Authority, Fire District #7, to ensure that additional support and resources are available from the district and other fire jurisdictions through the District Mutual Aid Agreements.</li> </ul>
Operation	<ul style="list-style-type: none"> <li>• Operation of the cogeneration facility is projected to create 30 new jobs. It is possible that some families who choose to relocate and reside within the boundaries of the Blaine School District could add a relatively small number of students to that district’s enrollment, which is currently at capacity.</li> </ul>	<ul style="list-style-type: none"> <li>• Under the No Action Alternative, the project would not be constructed, therefore there would not be any construction impacts for this element of the environment.</li> </ul>	<p><u>Mitigation Measures Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>• No mitigation is proposed.</li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
	<ul style="list-style-type: none"> <li>The Applicant proposes to provide its own security, emergency medical, and fire response infrastructure. It is anticipated that only in an emergency, would local community fire, police, medical services, and other government resources be called upon to help respond to an event at the facility.</li> </ul>	<ul style="list-style-type: none"> <li>Tax revenue associated with construction and operation of the project would not be realized by the state of Washington and Whatcom County.</li> </ul>	
<b>Cultural Resources</b>			
Construction	<ul style="list-style-type: none"> <li>The Lummi Indian Nation’s second native plant survey has not been completed and the results of this study and its associated archaeological survey may identify important resources or sites in the various project facility areas.</li> <li>One recorded archaeological site in laydown area 3 in the refinery interface area appears to be insignificant and therefore would not be adversely affected by project construction.</li> <li>Archaeological surveys have not been conducted for the following project facilities, therefore impacts to cultural resources in these areas are not known: various components in the refinery interface area; BP’s 0.8-mile long interconnecting transmission line; Alcoa water pipeline; Access Road 1 area; and the wetland mitigation area.</li> <li>A professional survey found no cultural resources along the 5-mile-long transmission line corridor from Brown Road to Custer substation. There is a low probability that such resources would be found within this area.</li> </ul>	<ul style="list-style-type: none"> <li>Under the No Action Alternative, the project would not be constructed; therefore there would not be any construction impacts for this element of the environment.</li> </ul>	<p><u>Mitigation Measures Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>Monitor construction activities would occur within 100 feet of the boundaries of the recorded archaeological site discovered in Laydown Area 3.</li> <li>A pedestrian survey is planned for the wetland mitigation areas where the ground would be disked to control reed canary grass.</li> <li>If archaeological resources or human burials were encountered during construction, activities that could further disturb the deposits would be directed away from the find. The Washington State Archaeologist and Lummi Indian Nation cultural resource staff would be contacted.</li> <li>An archaeological survey should be conducted in areas not previously surveyed. If no significant archaeological resources are discovered, construction activities would not affect cultural resources. If significant resource were found that could be impacted by the project, it is recommended that appropriate mitigation measures be devised before construction begins.</li> </ul>
Operation	<ul style="list-style-type: none"> <li>Operation of the project would not result in adverse impacts on cultural resources at any of the project components.</li> </ul>	<ul style="list-style-type: none"> <li>Under the No Action Alternative, the project would not be constructed; therefore there would not be any operation impacts for this element of the environment.</li> </ul>	<p><u>Mitigation Measures Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>No operational mitigation measures are proposed.</li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
<b>Transportation</b>			
Construction	<ul style="list-style-type: none"> <li>Construction of the proposed project would generate 650-1200 average weekday trips during the 25-month construction period.</li> <li>During construction, some onsite soil would be removed and disposed of at approved sites. Various quantities of fill, including sand and gravel, would also be imported to the site. In addition, construction materials would be brought to the site that would include concrete, sheet and metal piping. Assuming trucks with a 20-cubic-yard capacity, this would result in 7,583 one-way truck trips.</li> <li>The SR 548/Portal Way intersection would operate at Level of Service (LOS) F during the PM peak hour during peak construction conditions without any mitigation.</li> </ul>	<ul style="list-style-type: none"> <li>Under the No Action Alternative, traffic volumes in the area would be expected to increase at approximately a 5% per year. Intersections on SR 548 would continue to operate at LOS B or C. The only exception is the SR 548/Portal Way intersection, which would operate at LOS D, which is considered acceptable by WSDOT.</li> </ul>	<p><u>Mitigation Measures Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>A Traffic Control Plan would be developed and implemented to ensure safe travel conditions within the Grandview Road and SR 548 rights-of-way.</li> <li>A responsible person would be designated as the Transportation Coordinator.</li> <li>The Transportation Coordinator would serve as the point of contact for county and state agencies.</li> <li>Preferential parking for carpools and vanpools would be established at the site during construction, where practical.</li> <li>Shift hours would be staggered or adjusted as appropriate to minimize traffic impacts.</li> <li>Implement Letter of Understanding No. 66 between the Applicant and WSDOT.</li> </ul>
Operation	<ul style="list-style-type: none"> <li>Operation of the cogeneration facility would generate approximately 140 weekday trips</li> <li>The level of service at the SR 548/Portal Way intersection would decrease to LOS D, but delays would be short, and no substantial traffic queuing or congestion is expected.</li> </ul>	<ul style="list-style-type: none"> <li>Under the No Action Alternative, the project would not be constructed; therefore there would not be any impacts for this element of the environment.</li> </ul>	<p><u>Mitigation Measures Proposed by the Applicant</u></p> <ul style="list-style-type: none"> <li>A westbound left-turn lane would be installed on SR 548 at the Blaine Road intersection.</li> <li>An access road would be located approximately 1,000 feet east of Blaine Road. The access road would be constructed and paved to meet applicable geometric and safety standards.</li> </ul>
<b>Health and Safety</b>			
Construction	<ul style="list-style-type: none"> <li>Potential health and safety risks present during construction are generally typical of the risks present on major industrial/commercial construction site. Health and safety concerns include the risk of fire and explosion, chemical storage and handling, spill response, collection, storage and disposal of hazardous wastes, the installation of transmission lines, sanitary waste handling, the presence of natural gas, and worker exposure to radiation.</li> </ul>	<ul style="list-style-type: none"> <li>The Ferndale natural gas pipeline and the BP Cherry Point Refinery have been adjacent to the project site for decades. If the proposed project were not constructed, the worker and public health and safety risks related to the use, storage, collection and treatment of non-hazardous and hazardous chemicals at the refinery would still exist.</li> </ul>	<p><u>Measures Proposed by Applicant</u></p> <ul style="list-style-type: none"> <li>Prior to construction the Applicant would require the engineering, procurement, and construction contractor to prepare an Environmental Health and Safety Program designed to reduce the potential impacts related to risks of fire and explosion, spills, hazardous or toxic materials management and handling.</li> </ul>

**Table 1-2: Continued**

Element of the Environment	Impacts of the Proposal	Impacts of No Action	Measures to Mitigate Impacts
		<ul style="list-style-type: none"> <li>Under the No Action Alternative, there would be no additional health and safety risks related to the construction and operation of the proposed project.</li> </ul>	<ul style="list-style-type: none"> <li>Individual plans to be prepared include:               <ul style="list-style-type: none"> <li>- Fire Prevention and Response Plan,</li> <li>- Medical Emergency Plan,</li> <li>- Spill Prevention Plan ,</li> <li>- Hazardous Construction Material Management Plan, and</li> <li>- Explosion Risk Management Plan.</li> </ul> </li> <li>As appropriate, the Applicant’s existing health and safety resources may augment the EPC contractor’s first aid, fire response, and security personnel.</li> <li>The EPC contractor would coordinate with the Refinery Fire Marshal and the Whatcom County Fire Department during construction of the proposed project.</li> </ul>
Operation	<ul style="list-style-type: none"> <li>The potential risks present during operation, maintenance and standby of the proposed project are similar to those present during construction. Types of accidents that could occur that would pose a health and safety risk to individuals at the cogeneration facility, the BP refinery, or in the project vicinity include: the release of anhydrous ammonia, a natural gas explosion or fire, and the release/spill of a hazardous chemical(s).</li> </ul>	<ul style="list-style-type: none"> <li>The Ferndale pipeline and the BP Cherry Point Refinery have been adjacent to the project site for decades. If the proposed project were not constructed, the worker and public health and safety risks related to the use, storage, collection and treatment of non-hazardous and hazardous chemicals at the refinery would still exist. Under the No Action Alternative, there would be no additional health and safety risks related to the construction and operation of the proposed project.</li> </ul>	<p><u>Mitigation Measures Proposed by Applicant</u></p> <ul style="list-style-type: none"> <li>Plans, procedures, and protocols for managing worker and public health and safety would be developed. These may include:               <ul style="list-style-type: none"> <li>- Safety and Health Manual</li> <li>- Emergency Preparedness Response Plan, and</li> <li>- Fire Emergency Response Operations (FERO) Plan</li> </ul> </li> <li>In addition to the plans, procedures, and protocols listed above, the following plan would be prepared to protect worker and public health and safety during the operation of the proposed project:               <ul style="list-style-type: none"> <li>- Fire Prevention and Response Plan,</li> <li>- Spill Prevention Plan,</li> <li>- Hazardous Waste Management Plan,</li> <li>- Prevention of Natural Gas Plan, and</li> <li>- Explosion Risk Management Plan</li> </ul> </li> </ul>

## **June 2006 Environmental Checklist**

## ENVIRONMENTAL CHECKLIST

### *Purpose of checklist:*

The State Environmental Policy Act (SEPA), chapter [43.21C](#) RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

### *Instructions for applicants:*

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

### *Use of checklist for nonproject proposals:*

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

## A. BACKGROUND

1. Name of proposed project, if applicable: BP Cherry Point Cogeneration Project
2. Name of applicant: BP West Coast Products LLC

**3. Address and phone number of applicant and contact person:**

Mark Moore  
4519 Grandview Road, Blaine, WA 98230  
(360) 371-1200

**4. Date checklist prepared:** June 20, 2006

**5. Agency requesting checklist:** EFSEC

**6. Proposed timing or schedule (including phasing, if applicable):**

BP proposes to commence construction of the Cogeneration Project within the term of the existing Site Certification Agreement (SCA), which requires construction to commence by December 21, 2014. As explained below, BP is requesting an amendment to the SCA that would allow it to construct the project in two phases.

**7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

BP is requesting an amendment to the SCA to allow it to construct the facility in two phases. If BP proceeds with phased construction, there would be a Phase I facility, and that facility might be expanded in a later second phase. At this time, BP does not have other plans for additions, expansion or further activity beyond Phase I related to the Cogeneration Project proposal.

**8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

Final Environmental Impact Statement, BP Cherry Point Cogeneration Project (Aug. 2004), hereafter "FEIS".  
Application for Site Certification (Revised Apr. 2003)

**9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. No**

**10. List any government approvals or permits that will be needed for your proposal, if known.**

Amendment of Site Certification Agreement (SCA).  
Amendment of Prevention of Significant Deterioration/Notice of Construction (PSD) Permit.

**11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)**

BP already possesses a Site Certification Agreement (SCA) and related permits that authorize the construction and operation of a 720 MW (738 MW gross) natural gas-fired cogeneration facility known as the Cherry Point Cogeneration Project. BP now seeks to amend the existing SCA and associated PSD Permit so that BP will have the flexibility of either proceeding to construct the Cogeneration Project as originally permitted, or being able to construct it in two phases.

Under the phased construction alternative, Phase I would consist of a combined-cycle cogeneration facility with two combustion turbine generators, two heat recovery steam generators with duct firing capability and one steam turbine generator. Phase I would have a gross electrical capacity of 520-570 MW, depending upon whether General Electric 7FA or Siemens SGT6-5000F combustion turbines were used. Phase II would consist of unspecified modifications and additions to the facility that would increase its capacity to no more than 720 MW (738 MW gross). Under the phased construction alternative, both phases of the facility would be designed to fit on the same footprint as the originally permitted facility and to have environmental impacts when fully constructed that are not substantially greater than the single-phased project that is authorized by the existing SCA. A detailed description of the phased construction alternative is being filed with this Checklist.

BP is also requesting the following changes in the SCA:

- (a) an amendment allowing BP to use refinery fuel gas in the duct burners on the HRSGs;
- (b) an amendment allowing project construction to occur over a 33-month period rather than a 27-month period;
- (c) a change in the description of the Ferndale Pipeline facility that will provide natural gas to the Project;
- (d) an amendment to allow BP to use aqueous rather than anhydrous ammonia at the Project; and
- (e) an amendment so that the International Building Code of 2003 (IBC-2003) rather than the Uniform Building Code of 1997 (UBC-1997) will govern construction of the Project.

**12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

The project will be located on the south side of Grandview Road adjacent to the existing BP Cherry Point refinery in Whatcom County, Washington. The project site is described in the FEIS and the legal description is attached to the existing SCA. Whether constructed at once or in phases, the Cogeneration Project would occupy the same site and have the same overall footprint.

TO BE COMPLETED BY  
APPLICANT

EVALUATION FOR  
AGENCY USE  
ONLY

**B. ENVIRONMENTAL ELEMENTS**

**1. Earth**

**a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other  
.....**

A detailed description of the site is provided in the FEIS.

**b. What is the steepest slope on the site (approximate percent slope)?**

See FEIS.

**c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)?  
If you know the classification of agricultural soils, specify them and note any prime farmland.**

See FEIS

**d. Are there surface indications or history of unstable soils in the immediate vicinity? If so,  
describe.**

See FEIS

**e. Describe the purpose, type, and approximate quantities of any filling or grading proposed.  
Indicate source of fill.**

See FEIS

**f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.**

A detailed analysis of potential environmental effects associated with constructing and operating the facility is provided in the FEIS. The phased construction alternative would not change the footprint of the facility and would be subject to the same SCA conditions to minimize erosion. As a result, the phased construction alternative is not expected to result in additional erosion. The other changes to the SCA

requested by BP would not result in erosion.

**g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?**

See FEIS. The phased construction alternative will be designed to occupy the same footprint and will not change the amount of impervious surfaces at the site.

**h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:**

See FEIS.

**2. Air**

**a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.**

Air emissions during construction of the Cogeneration Project are described in the FEIS. Neither the impacts nor mitigation measures for construction would change for the phased construction alternative.

Operational emissions would differ for the phased construction alternative. With only the Phase I Facility in operation, emissions would be lower than authorized by the original PSD permit. However, maximum potential VOC emissions could be higher than originally permitted because the Phase I facility will require additional duct-firing capabilities to ensure that it will be able to meet refinery steam demand.

Phase I emission rates and modeling analysis are presented in the application for a PSD amendment. The following table summarizes the Phase I facility's potential to emit criteria pollutants:

Potential to Emit (Tons per year)	NOx	CO	VOC	PM10	SO2
Authorized Facility	234.4	159	42	262.2	51
Phase I Facility (with GE)	201.4	158.4	58.4	262.0	46.7
Phase I Facility (with Siemens)	220.3	101.6	57.2	193.8	51.1

The following table indicates the modeled impact on ambient air quality compared to the significant impact levels (SILs) for Class II Areas.

Pollutant	Maximum Predicted Concentration (ug/m <sup>3</sup> ) <sup>1</sup>					SIL (ug/m <sup>3</sup> ) <sup>2</sup>
	Annual <sup>3</sup>	24-hr	8-hr	3-hr	1-hr	
NO <sub>x</sub> (GE)	0.80					1
NO <sub>x</sub> (GE/Alternate STG)	0.63					1
NO <sub>x</sub> (Siemens)	0.77					1
CO (GE)			10.9		83.0	500/2,000
PM <sub>10</sub> (GE)	0.55	3.86				1/5
PM <sub>10</sub> (GE/Alternate STG)	0.54	3.99				1/5
PM <sub>10</sub> (Siemens)		3.79				1/5
SO <sub>2</sub> (GE)	0.06	0.8		5.0		1/5/25

Notes  
<sup>1</sup> Highest of all cases for 1995, 1996, 1998, 1999, 2000.  
<sup>2</sup> Significant Impact Level (SIL) for criteria pollutants.  
<sup>3</sup> Based on annual average ambient temperature of 50°F.

The following table shows how the combination of existing concentrations of regulated pollutants and the modeled impacts of the Phase I facility compare to national ambient air quality standards (NAAQS).

Pollutant	Averaging Time	Maximum Concentration (ug/m <sup>3</sup> )			Lower of WAAQS or NAAQS (ug/m <sup>3</sup> )
		Modeled	Background	Total	
SO <sub>2</sub>	Annual	0.06	3	3	53
	24-hour	0.8	13	14	260
	3-hour	5.0	27	32	1,300
	1-hour	8.7	35	44	1,065
PM <sub>10</sub>	Annual	0.55	13	14	50
	24-hour	4.0	35	39	150
PM <sub>2.5</sub>	Annual	0.55	9	10	15
	24-hour	4.0	29	33	65
CO	8-hour	10.9	2,668	2,679	10,000
	1-hour	83.0	2,900	2,983	40,000
NO <sub>2</sub>	Annual	0.80	27	28	100

Background concentration is the maximum value for each pollutant and averaging time of the two nearest representative ambient measuring stations.

The Cogeneration Project will also emit carbon dioxide (CO<sub>2</sub>), which is not regulated by the Clean Air Act, but is a greenhouse gas. CO<sub>2</sub> emissions are directly related to the quantity of natural gas burned. The potential CO<sub>2</sub> emission from the Phase I facility would be 1,550 - 1,770 Ktonnes per year, depending upon the turbines selected, compared to approximately 2,016 Ktonnes per year for the previously permitted facility. The SCA requires mitigation of the facility's actual CO<sub>2</sub> emissions.

The Phase II facility is not yet sufficiently defined to provide air emission information. The requested SCA amendment would authorize construction of a Phase II facility only to the extent that the total emissions would not exceed those authorized by the original permit, with the exception of the increased VOC emissions described above.

BP is also asking to be allowed to burn refinery fuel gas in the HRSG duct burners. The fuel gas would be treated to have the same sulfur levels as natural gas. The facility would comply with the same emissions limits whether the duct burners were operated with natural gas or refinery fuel gas.

**b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.**

No.

**c. Proposed measures to reduce or control emissions or other impacts to air, if any:**

The two-phased alternative would employ the same emission control technology planned for the permitted facility. See FEIS and PSD amendment application.

**3. Water**

**a. Surface:**

**1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

See FEIS.

**2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

No.

**3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

See FEIS, Application for Site Certification and existing section 404 permit from Corps of Engineers. The two-phased alternative would not change the impacts to wetlands that has been permitted or the approved wetland mitigation plan.

**4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

No. Water for the phased construction alternative will be provided in the same way as the permitted project. The Phase I facility is expected to use an average of 1,700-2,000 gpm of water, compared to an average of 2,244-2,316 gpm of water for the previously permitted facility. As a result, additional water will be conserved by the planned water reuse project. Water use when both phases are constructed will be less than or equal to the water use authorized by the Site Certification Agreement.

**5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

No.

**6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

Waste water will be discharged to the Refinery's waste water treatment facility. With both phases of the phased construction alternative in operation, the quantity of waste water discharged will not exceed that authorized by the existing SCA.

**b. Ground:**

**1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.**

See FEIS.

**2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

See FEIS.

**c. Water runoff (including stormwater):**

**1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

The stormwater system is described in the original application for Site Certification and the FEIS. The phased construction alternative would not change the stormwater system design.

**2) Could waste materials enter ground or surface waters? If so, generally describe.**

See FEIS

**d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:**

See Application for Site Certification and FEIS,

**4. Plants**

**a. Check or circle types of vegetation found on the site: See FEIS**

- Deciduous tree: Alder, maple, aspen, other
- Evergreen tree: Fir, cedar, pine, other
- Shrubs
- Grass
- Pasture
- Crop or grain
- Wet soil plants: Cattail, buttercup, bullrush, skunk cabbage, other
- Water plants: Water lily, eelgrass, milfoil, other
- Other types of vegetation

**b. What kind and amount of vegetation will be removed or altered?**

The requested amendment will not result in any additional removal of vegetation. The project footprint would not change. See FEIS for a discussion of impacts associated with permitted project.

**c. List threatened or endangered species known to be on or near the site.**

See FEIS.

**d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:**

See FEIS. The proposed amendment would not change landscaping and mitigation requirements.

**5. Animals**

**a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site: See FEIS.**

**Birds: Hawk, heron, eagle, songbirds, other: .....**

**Mammals: Deer, bear, elk, beaver, other: .....**

**Fish: Bass, salmon, trout, herring, shellfish, other: .....**

**b. List any threatened or endangered species known to be on or near the site.**

See FEIS

**c. Is the site part of a migration route? If so, explain.**

See FEIS

**d. Proposed measures to preserve or enhance wildlife, if any:**

The proposed amendment would not change the footprint of the project, and would remain subject to the conditions of the original SCA. No additional wildlife impacts are anticipated.

**6. Energy and natural resources**

**a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**

The original SCA provided that natural gas would be the only fuel used at the Cogeneration Project. BP is now requesting that it be allowed to use refinery fuel gas in the facility's duct burners. The fuel gas would be treated so that it has the same sulfur levels as natural gas. The facility will comply with the same air emissions limitations whether the duct burners are fired with natural gas or fuel gas.

The maximum gas usage for the original facility was estimated at approximately 42,500,000 MMBtu/year, assuming a 94% availability of the Cogeneration Project and 510 Mlb/hr steam export to the refinery. Using the same assumptions, the maximum gas usage of the Phase I facility would be about 30,500,000 – 34,000,000 MMBtu/year depending upon the turbines used.

**b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**

No

**c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:**

By producing both electricity and steam, the Cogeneration Project maximizes the use of combustion energy from the natural gas. It will operate at an overall combined efficiency of 63% compared to the 53% efficiency of a comparable combined-cycle generating facility. The Phase I facility will also operate as a cogeneration facility, with its efficiency benefits.

The existing SCA also requires BP to develop and implement a construction materials reuse plan. This requirement will apply regardless of whether the facility is constructed as originally permitted, or constructed in phases.

**7. Environmental health**

**a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.**

See FEIS. The proposed phased construction alternative would not change the chemicals used in construction or operation of the facility, and the facility would remain subject to risk prevention and mitigation conditions found in the SCA, whether constructed in phases or not.

**1) Describe special emergency services that might be required.**

See FEIS

**2) Proposed measures to reduce or control environmental health hazards, if any:**

See FEIS

**b. Noise**

**1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

Background noise conditions are described in the FEIS.

**2) What types and levels of noise would be created by or associated with the project on a**

**short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.**

Potential noise from Project was described and modeled in connection with the original permitting proceedings. Operation of the smaller Phase I facility may produce less noise than the originally permitted facility. BP proposes to remain subject to the existing SCA limitations on project noise under the phased construction alternative. Consequently, the requested amendment will not result in any additional noise impacts.

**3) Proposed measures to reduce or control noise impacts, if any:**

The SCA requires certain mitigation measures to be taken to reduce noise during construction, and contains limitations on noise from the Project. BP proposes that these mitigation measures and noise limitations apply to the phase construction alternative.

**8. Land and shoreline use**

**a. What is the current use of the site and adjacent properties?**

See FEIS.

**b. Has the site been used for agriculture? If so, describe.**

See FEIS.

**c. Describe any structures on the site.**

See FEIS

**d. Will any structures be demolished? If so, what?**

See FEIS

**e. What is the current zoning classification of the site?**

Heavy Impact Industrial.

**f. What is the current comprehensive plan designation of the site?**

Major/Port Industrial Growth Area with the Cherry Point Urban Growth Area.

**g. If applicable, what is the current shoreline master program designation of the site?**

n/a

**h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.**

The project site includes wetlands. The requested amendment will not change the footprint of the facility and, therefore, will not result in additional wetland impacts. BP proposes no changes to the wetland mitigation plan that has been approved by both the Corps of Engineers and EFSEC.

**i. Approximately how many people would reside or work in the completed project?**

BP estimated that operation of the originally permitted project would employ approximately 30 people. Operation of the Phase I facility is expected to employ the same number of people.

**j. Approximately how many people would the completed project employ?**

Approximately 30.

**k. Proposed measures to avoid or reduce displacement impacts, if any:**

None.

**l. Proposed measures to ensure the proposal is compatible with existing and projected land**

**uses and plans, if any:**

Whether or not it is built in phases, the Cogeneration Project will be compatible with the existing heavy industrial uses in the area. The Project site is a sufficient distance from residences to avoid interfering with residential uses.

**9. Housing**

**a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**

The Cogeneration Project, whether constructed at once or in phases, would not provide any housing.

**b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**

The Cogeneration Project, whether constructed at once or in phases would not eliminate any housing.

**c. Proposed measures to reduce or control housing impacts, if any:**

The requested amendment is not expected to result in any impacts on housing.

**10. Aesthetics**

**a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

The previously permitted Cogeneration Project would have three 150-foot exhaust stacks, three HRSG structures 95 feet tall and a cooling tower 60 feet tall. Under the alternative phased construction, the Phase I facility would have two 150-foot exhaust stacks, two HRSG structures 95 feet tall, and a cooling tower 60 feet tall.

**b. What views in the immediate vicinity would be altered or obstructed?**

The FEIS discusses the impact of the previously permitted facility on views in the vicinity. The phased construction alternative will not change the impact on views. By itself, the Phase I facility would have two gas turbines and HRSGs compared to three of each in the originally permitted project. The overall impact on views is not expected to be materially different.

**c. Proposed measures to reduce or control aesthetic impacts, if any:**

The SCA includes certain requirements to minimize aesthetic impacts; these requirements would apply to the proposed phased construction alternative as well.

**11. Light and glare**

**a. What type of light or glare will the proposal produce? What time of day would it mainly occur?**

See FEIS. The requested SCA amendment authorizing phased construction would not result in additional light or glare impacts.

**b. Could light or glare from the finished project be a safety hazard or interfere with views?**

No. See FEIS.

**c. What existing off-site sources of light or glare may affect your proposal?**

None.

**d. Proposed measures to reduce or control light and glare impacts, if any:**

The SCA includes certain requirements to minimize light and glare impacts; these requirements would apply to the proposed phase construction alternative as well.

**12. Recreation**

- a. What designated and informal recreational opportunities are in the immediate vicinity?**

See FEIS.

- b. Would the proposed project displace any existing recreational uses? If so, describe.**

No.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:**

None.

**13. Historic and cultural preservation**

- a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.**

See FEIS.

- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.**

See FEIS.

- c. Proposed measures to reduce or control impacts, if any:**

The phased construction alternative would not result any additional impacts to historic and cultural resources because its footprint would be the same as originally authorized. The SCA contains requirements designed to protect historic and cultural resources, and these SCA requirements would apply whether the project is constructed at once or in phases.

**14. Transportation**

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.**

See FEIS.

- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?**

See FEIS.

- c. How many parking spaces would the completed project have? How many would the project eliminate?**

See FEIS.

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).**

The SCA requires some improvements to Grandview Road at the Portal Way and Blaine Road intersections in the vicinity of the project. These requirements would apply whether the project is constructed at once or in phases.

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

See FEIS.

**f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.**

Construction of the 720 MW Cogeneration Project as originally permitted was expected to take approximately 27 months, and construction related traffic would vary during that construction period. As described in the FEIS, peak construction traffic would involve approximately 600 round trips to the Project site.

BP is requesting to amend the SCA to allow construction to take place over a 33-month period. With a slightly longer construction period, fewer activities will need to take place simultaneously, which means fewer workers will be on site at any particular time. Traffic impacts are expected to be correspondingly lower.

Under the phased construction alternative, construction of the 520-570 MW Phase I facility would also take approximately 33 months. Although fewer construction person-hours would be required to complete Phase I, the overall schedule duration remains approximately the same. Because fewer workers will be required on site, project-related traffic would be reduced. Fewer heavy equipment hauls would be required during Phase I because only two gas turbines and HRSGs would be constructed.

**g. Proposed measures to reduce or control transportation impacts, if any:**

In order to mitigate potential impacts on traffic due to construction, the SCA requires BP to develop and implement a construction traffic management plan, construct a traffic signal at the intersection of Grandview Road and Portal Way, and implement approved temporary left-turn channelization at the intersection of Grandview Road and Blaine Road. These measures will also mitigate traffic impacts associated with the phased construction alternative.

**15. Public services**

**a. Would the project result in an increased need for public services (for example: Fire protection, police protection, health care, schools, other)? If so, generally describe.**

The requested SCA amendment is not expected to result in any increased need for public services. In fact, the lower level of construction activity during phased construction is likely to reduce the need for these services.

**b. Proposed measures to reduce or control direct impacts on public services, if any.**

The SCA already requires the development and implementation of a Construction Emergency Plan, and coordination with local police, fire and emergency medical services. It also requires BP to pay reasonable costs if unanticipated services result in additional overtime for the Whatcom County Sheriff's Department. These requirements would apply regardless of whether the Project is constructed at once or in phases.

**16. Utilities**

**a. Circle utilities currently available at the site: Electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.**

See FEIS.

**b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.**

See FEIS.

**C. SIGNATURE**

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

**Signature:**

A handwritten signature in black ink, appearing to read "Mark S. Moore", is written above a solid horizontal line.

Mark S. Moore

**Date Submitted:** June 20, 2006