

Tue 1:14 PM

From: "Elling, Michelle (OCD)" <MichelleE@ep.cted.wa.gov>
Subject: RE: Wetland Issues for BP Cherry Point Co-Generation Project
To: "Casey, Laura" <
CC: "Mark Anderson (E-mail)" <

Laura,

Thank you so much! My goodness, I'm sorry I'm so late getting my summary together. This really helped. Would you like to review my draft summary and make sure I'm quoting things accurately? Otherwise, your email will serve very well as Ecology's response and comments.

Michelle Elling
Energy Facility Site Evaluation Council

-----Original Message-----

From: Casey, Laura f
Sent: Tuesday, June 19, 2001 12:14 PM
To: Elling, Michelle (OCD)
Cc: Kenny, Ann; Summerhays, Jeannie
Subject: Wetland Issues for BP Cherry Point Co-Generation Project

Hello Michelle;

Here is a summary of the wetland issues related to the BP Cherry Point Co-Generation Project, following up from our meeting last Wednesday.

General Policy Issues

The first step in wetland mitigation is avoidance of impacts. Ecology will be reviewing the proposal to determine whether the chosen location and site layout has avoided or minimized wetland impacts to the greatest extent possible. Alternative site locations should be evaluated and discussed in the Potential Site Study to show how the wetland impact has been minimized. This is likely to be required by the Corps of Engineers as part of their review under the Clean Water Act. At the meeting we discussed possible design alternatives as well, such as alternative locations for employee parking and administration buildings other than at the actual plant and substation site.

Once a preferred alternative has been chosen, Ecology will ask for mitigation for wetland impacts. Ecology's recommended mitigation ratios are

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Netscape%20Users/Betsy%20Minden/Mail/Inbox?id=

found in two documents, titled "How Ecology Regulates Wetlands", 1998, and "State of Washington Alternative Mitigation Policy Guidance for Aquatic Permitting Requirements from the Departments of Ecology and Fish and Wildlife", 2000. These documents have been provided to EFSEC, BP, Shapiro & Associates and Golder Associates at the meeting. The mitigation ratios vary depending upon wetland category, wetland plant community, and type of proposed mitigation. Preferred mitigation is on-site and in-kind, but Ecology will also consider on-site out-of-kind, off-site in-kind, and off-site out-of-kind in that order. Off-site mitigation must be in the same drainage basin as the impacted wetlands.

Information Request

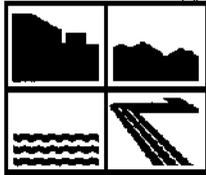
In order to review this proposal and provide recommendations to ensure that it meets with Ecology's standards for wetland protection, please request that the applicant provide the following documentation:

- * Project plans
- * Alternatives analysis, such as provided to the Corps of Engineers
- * Wetland delineation for preferred alternative
- * Wetland reconnaissance for other alternatives that have been considered
- * Wetland categorization using the Washington State Wetlands Rating System, 1993
- * Functional assessment of wetlands at the preferred alternative site, using the Washington State Functional Assessment Method, 1999, or other method approved by Ecology
- * Wetland impact evaluation
- * Conceptual compensatory mitigation proposal

Thank you for the opportunity to comment on this proposal at this early stage in the process. If you have any questions, I can be reached at (425) 649-7129 or lcas461@ecy.wa.gov.

Laura Casey
Wetlands Specialist
Ecology - NWRO

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Washington State Energy Facility Site Evaluation Council

June 28, 2001

TO: Meeting Attendees of the June 13, 2001 BP Cherry Point Cogeneration Power Plant Proposal – Initial Ecology Concerns

FROM: Michelle Elling, EFSEC

ATTENDEES:

Name	Company	Area of Concern	Phone Number	Email address
Barry Wenger	Ecology/Bellingham Field Office	General	360-738-6345	bwen461@ecy.wa.gov
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Bob Burmark	Ecology Headquarters	Air	360-407-6812	rbur461@ecy.wa.gov
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Name	Company	Area of Concern	Phone Number	Email address
Michelle Elling	EFSEC	Project oversight	360-956-2124	michellee@ep.cted.wa.gov
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Mike Torpey	BP Cherry Point	Project proponent	360-371-1757	Torpeym1@bp.com
Doug Morell	BP project consultant	Lead consultant	425-883-0777	Doug_morell@golder.com
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Walt Russell	BP project consultant	Air		wrussell@airpermits.com

POTENTIAL PROJECT IMPACTS:

Air

Walt Russell, consultant to BP Cherry Point for the Cogeneration proposal, explained that it is BP's intent to separate the Cogeneration plant from the refinery and develop the PSD based on the Cogeneration plant alone. BP intends to take the 14 - 5.5 MW Solar Taurus 60 units that are currently installed and three of the four industrial boilers running off line when the Cogeneration plant is operational. The offsets from these units will not be used in calculations for the PSD permit, according to Mike Torpey, BP project proponent. BP will meet BACT and potentially achieve LAER because of efficiencies in the project proposal with NOx emissions less than 3 ppm (2.5 - 3.0 ppm range). Ammonia slip is expected to be in the 5 ppm range. CO catalyst will be used as well. PM₁₀ will not be fully offset.

BP is proposing to use natural gas to fuel this project. The back-up fuel only in cases where the supply of natural gas is not available, according to BP, will be a low sulfur distillate from the refinery's diesel de-sulfurization unit. They expect this diesel to have less than 0.05 % sulfur and hope to meet the new specification of 0.01 %. There is also a proposed 'Clean Fuels' project before the refinery that may supply back-up fuel to the cogeneration plant. The other fuel anticipated to

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be utilized is the excess refinery fuel gas that is normally burned in the existing package boilers. If it is not burned in the new cogen plant, it would have to be sent to the flares during plant maintenance turnarounds. This fuel gas will be used with the duct burners approximately 50% of operational time, although the air permit will consider duct burner use for 8760 hours per year.

Air Concerns and Recommendations

1. Coordinate with Ecology and submit the protocols for the Class I and Class II studies at least two weeks prior to meeting with Ecology to Clint Bowman of Ecology's air program. Clint will share this information with the Federal Land Managers and coordinate the subsequent PSD meeting(s).
2. The range of the air shed models (CALPUFF and ISCST3) must include Canada. Confirm with Ecology's Clint Bowman that the model proposed (20 km range) is sufficient.
3. It would be a benefit to the project to include comparative information concerning the Sumas 2 project. What are the differences between these projects?
4. Regional haze due to ammonia slip has been identified as a concern to both Canada's Greater Vancouver Regional District (GVRD) and the federal land managers. This will need to be addressed.
5. BP needs to fully identify the range of back-up fuels other than natural gas that will be utilized in the operation of the cogeneration plant. Has BP considered using a biodiesel?

Wetlands

Doug Morell, consultant to BP for this proposal, outlined the wetlands study that is still being developed to determine the preferred project site. The original wetlands study encompassed 40 acres but approximately 100 acres have now been evaluated. The property under consideration was formerly agricultural lands and a buffer zone next to Grandview Road has been planted by BP Cherry Point refinery with hybrid poplars and conifers. The buffer zone has the most upland area of the 100 acres surveyed, but BP does not prefer this location, as it would interfere with the main purpose of the zone, which is to provide a visual buffer to the industrial activity at the site. The existing natural gas pipeline is aligned approximately 50 feet south of Grandview Road, and this will also need a buffer which will affect plant siting. Also, BP believes it would be difficult to construct the facility next to Grandview and still maintain the cogeneration aspect of the proposal (steam provided to the power plant).

The transmission line corridor is currently under construction as plans were approved for a previous activity and wetlands mitigation for this corridor are already approved.

Wetlands Concerns and Recommendations

1. A pre-site study in coordination with Ecology is very important to this project development.
2. BP must look at avoiding wetlands impacts as their primary goal.
3. Ecology would prefer that BP build in the road buffer zone, as it is clear that any other location that BP could choose will significantly impact the wetland area. If this is not possible, BP must consider that the proposed mitigation ratio could be 4:1. In that case, if the facility site proposed fill of 25 acres of wetlands, then 100 acres of mitigation must be offered. It will be hard for BP to find 100 acres of mitigation in the existing watershed (WRJA), as required. Although the city of Bellingham has approved a wetland mitigation bank, it probably will not be available to BP due to size and location limitations.
4. A 404 permit will be required of BP through the Corp of Engineers. The Corp requires an alternatives analysis for the 404 permit. Ecology will also look closely at this alternatives analysis when determining mitigation for wetland impacts.
5. BP should consider plant design alternatives such as alternative locations for employees parking and administration buildings other than the actual plant and substation site.
6. BP should coordinate with Ecology to determine what kind of functional assessment is appropriate.
7. The proposed mitigation must be consistent with Whatcom County requirements.
8. Ecology recommends that BP look closely at the pre-filed testimony Ecology gave in the Sumas 2 adjudicative process through EFSEC on wetlands, air, and water issues.
9. Ecology recommended highly that BP use the following two guidance documents in determining wetland mitigation ratios: *State of Washington Alternative Mitigation Policy Guidance For Aquatic Permitting Requirements from the Departments of Ecology and Fish and Wildlife*, and *How Ecology Regulates Wetlands*.
10. The mitigation ratios vary depending upon wetland category, wetland plant community, and type of proposed mitigation. Preferred mitigation is on-site and in-kind, but Ecology will also consider on-site out-of-kind, off-site in-kind, and off-site out-of-kind in that order. Off-site mitigation must be in the same drainage basin as the impacted wetlands.
11. BP should provide to Ecology:
 - Project plans;
 - Alternatives analysis, such as provided to the Corp of Engineers;
 - Wetland delineation for the preferred alternative;
 - Wetland reconnaissance for other alternatives that have been considered;

- Wetland categorization using the Washington State Wetlands Rating System, 1993;
- Functional assessment of wetlands at the preferred alternative site using the Washington State Functional Assessment Method, 1999, or other method approved by Ecology;
- Wetland impact evaluation; and
- Conceptual compensatory mitigation proposal.

Water Resources/Water Quality

For the purpose of the EFSEC Potential Site Study, BP has proposed that the cogeneration plant will use cooling water under their existing water right through Whatcom County PUD. The refinery currently uses approximately 8 million gallons per day (GPD) under a water right of 11 million GPD. The cogeneration plant would need to utilize 3 – 4 million GPD under full operation. For this reason, BP is looking closely at water reuse projects through the refinery.

Currently, the refinery discharges 4 million GPD to the Straits of Georgia through an existing refinery NPDES permit. This discharge is high in salts and treatment would be necessary for the cogeneration plant to use this wastewater for cooling purposes. If BP determines reuse of the 4 million GPD discharge is feasible, the existing discharge to the Straits of Georgia would be reduced to 1 million GPD through evaporation of the wastewater. If water re-use is not feasible, BP would consider air or hybrid cooling.

The immediate issues with dry cooling as perceived by BP would be the additional impacts to wetlands (the project footprint would significantly increase (up to 4X)); noise (which has already been identified as a source of concern from refinery operations, alone); and decreased efficiency of power output.

Water Resources/Water Quality Concerns and Recommendations

1. Ecology supports water reuse at the BP refinery in general, but cautions BP to fully scope out the additional toxicity with condensing the wastewater discharge stream. This issue is potentially tied to the decrease in the herring population that has been observed and should be fully explored by BP in their proposal. An increase of the temperature of the discharge may also impact the herring and must be considered by BP.
2. BP should look at potentially developing an agreement with Birch Bay for the reuse of water from their wastewater treatment plant. BP is currently constructing pipe access to this WWTP for treatment of the refinery sanitary wastes. Birch Bay has just made an agreement with the city of Blaine to treat additional waste water. BP could potentially utilize the right-of-way currently under construction to Birch Bay to create a return pipe for use at the cogeneration plant.

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3. Although Ecology would prefer to modify the existing refinery NPDES permit, EFSEC does not have jurisdiction over the refinery. Any future changes to the cogeneration plant, including changes to discharge come under EFSEC jurisdiction. It may not be feasible to combine the activities of the refinery and the cogeneration plant under one NPDES permit.
4. The impacts of water reuse to the mixing zone assigned to Arco (BP Cherry Point) in their NPDES Permit would have to be evaluated. A change in the mixing zone could potentially impact their ability to meet water quality standards and definitely impacts their WET limit(s) which is (are) based on the applicable mixing zone.

Other Potential Environmental Concerns

1. Ecology noted that additional pressure and an added compressor station to insure the current refinery gas line can supply the necessary natural gas to the cogeneration plant will need to be clearly outlined by BP. Gas line safety and additional air emissions must be addressed.
2. Ecology noted that BP must address impact to the power transmission system. Bonneville Power Administration (BPA) will be performing the transmission study, which is due to be finalized in December of 2001.
3. Ecology noted that BP should clearly outline their plans for greenhouse gas mitigation. BP as a corporation has made a commitment to decrease worldwide BP's greenhouse gas emissions by 10% using the year 2000 as a baseline for determining the amount of emission reductions. By this formula, the cogeneration plant's greenhouse gases must be offset 100%. There is no assurance that these offsets will be local, but Ecology highly encourages BP to pursue local offsets.
4. BP inquired as to the use of storm water for wetland mitigation projects. Currently, stormwater runoff from the proposed cogen plant site area drains into the wetland mitigation project area north of Grandview Road. Ecology does not encourage the use of storm water for this purpose. Stormwater treatment would need to be considered.