Letter 141

State of Washington
DEPARTMENT OF FISH AND WILDLIFE

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ENERGY FACILITY SITE
EVALUATION COUNCIL

Mr. Allen Fiksdal, Manager
Energy Facility Site Evaluation Council
Post Office Box 43172
Olympia, Washington 98504-3172

Dear Mr. Fiksdal:

SUBJECT: Comments on Draft Environmental Impact Statement for Sumas Energy 2 Generation Facility.

The Washington Department of Fish and Wildlife (WDFW) has reviewed the Draft Environmental Impact Statement (DEIS) dated March, 2000, for the Sumas Energy 2 Generation Facility (SE2GF). The following comments address fish and wildlife concerns with regard to the proposed construction of the S2GF and associated water, gas and transmission lines in Whatcom County, Washington. Important riparian habitat, including the Sumas and Nooksack Rivers and selected tributaries as well as several freshwater wetlands, are among the designated Priority Habitats (WDFW 1999) directly impacted by the proposed actions. These, and other habitat types occurring in the project area, provide breeding, rearing and foraging opportunities for a number of State listed fish and wildlife species, as well as Federally Listed and Candidate species and Species of Concern.

Throughout the DEIS document, terms relating to project actions in wetland and riparian habitat are vague with regard to specific impacts on vegetation and other habitat components in these areas. To properly evaluate effects on wildlife species and habitat, definitive information regarding planned activities and mitigation measures are necessary. 1

The following discussion identifies potentially affected resources and includes a summary of estimated impacts of proposed project actions, by species, group or Priority Habitat type, followed by comments, recommendations, and requests for additional information where needed. Sections, Tables, etc., referenced throughout the following discussion, refer to the DEIS document unless otherwise stated.

State and Federally Listed Species

The Bald eagle (*Hialeetus leucocephalus*) is currently listed by the State of Washington as Threatened. It is also listed as Threatened under the authority of the Federal Endangered Species Act (ESA). An elimination of the eagle's federally threatened status is under consideration. (July 1999 FR 64:128)

Bald eagles are resident birds in western Washington, and nesting populations are particularly concentrated in the northwest Washington region that includes the project area (Smith et al. 1997). Management of bald eagles includes permanent protection of critical habitat in order to maintain current populations. Existing roost sites and nest trees are an important component of bald eagle critical habitat because eagles show a high fidelity for nest trees and certain perches from which to forage and rest within their home ranges. It has been shown that eagles in the western Washington region utilize large trees (31 – 35" dbh and 118 ft – 147 ft ht.) of various coniferous and deciduous species for roosting and nesting. The distance from a perennial water source for nest trees and roost sites ranges from 780 – 1277 ft (Watson and Pierce 1998).

Hooded merganser (*Lophodytes cucullatus*), Wood duck (*Aix sponsa*), Tundra swan (*Cygnus columbianus*), and Great blue heron (*Ardea herodius*) are identified as Priority Species by the State of Washington and the Willow flycatcher (*Empidonax traillii*), is listed as a Federal Species of Concern. These species are known to, or have the potential to, utilize the project area during one or more of their life requirements (breeding, foraging, rearing). The Pacific Flyway, one of four international corridors of critical habitat for migratory birds, also encompasses the project area.

3.5.3 Avian injury and death associated with power line collision

A number of sections of the proposed transmission line corridor intersect with major waterfowl migration routes (USFWS 1998). The scope of the problem may be significant in areas of heavy bird concentrations, such as the project area, and may impact a number of bird species including waterfowl, herons, raptors, and passerines (Brown et al 1987, Meyer and Lee 1979). Extensive documentation exists on bald eagle death and injury resulting from power line collision and electrocution (Olendorff and Lehman 1986, Benson 1980, Belisle et al. 1972). 2

Reported collisions generally involve static wires, ground wires and guy wires of power lines located in flyways. It has been shown that lines located within 400 m (1312 ft.) of riparian habitats and wetlands may significantly increase the likelihood of avian collision (Faanes 1987, Malcolm 1982).

Recommendations for power line corridor construction include the application of approved visual avoidance techniques, coupled with power line and pole designs that have been shown to eliminate or significantly reduce migratory bird and eagle injury and mortality due to in-air collisions and electrocution. 2

3.4.3 Nesting and roosting / foraging habitat

Direct impacts of the proposed construction of 115 kV and 230 kV power lines and gas pipeline include the removal of cottonwood trees and conifers from several sites along their respective routes. Eagle roosting and nesting has been documented within the project area, and mature cottonwoods and conifers are dominant tree species in roost sites selected by bald eagles in this region (Watson and Pierce 1998).

Washington Department of Fish and Wildlife recommends that the removal of tall (>100 ft) and large diameter (>30" dbh) trees of any species within a distance of ¼ mile from perennial water should be avoided in order to maintain existing and potential roosting and nest trees for bald eagles. Trees that are "topped" or trimmed at or below 100 ft in height are essentially unusable by eagles as roost or nest sites; thus replanting trees or retaining trees within the maintained portions of the right-of-way, the power line corridor, or other routes is not considered mitigation for the removal or alteration of potential eagle use trees. Also, WDFW recommends that mitigation for unavoidable removal or alteration of existing and potential nest and roost trees include replanting of similar species of trees in an area without height restrictions as well as the installation of approved, artificial nesting and roosting platforms, where appropriate. 3

Project area fish species that have either federal or state listing status include; Bull trout (*Salvelinus confluentes*), which is listed as both Federally threatened and State threatened; Coho salmon (*Oncorhynchus kisutch*), which is a Federal candidate for listing; and Pacific lamprey (*Entosphenus tridentatus*), which is a Federal species of concern.

These species, with the possible exception of bull trout, are present during one or more life-history stages within the project area. There are varying opinions of whether or not bull trout occur in the project area (pers. comm., P. Castle, C. Kraemer, R. Nielson). There is a general consensus that some suitable habitat exists for foraging and possibly rearing; however stream temperatures in the Sumas Basin are generally inappropriate for bull trout spawning.

Basic habitat requirements that apply to salmon, trout, and Pacific lamprey in the upper Sumas and its tributaries, including those within the project area, include well-oxygenated, cold water (45° – 60° F), low levels of fine surface sediments in spawning areas, stable, well-vegetated stream banks, an abundance of large woody debris (LWD), undercut banks and high quality side channel habitat for rearing.

3.2.3 Potential of increased stream temperatures resulting from runoff

Surface runoff resulting from the proposed actions will enter the tributary to Sumas creek via the 42-inch diameter storm drain. Depending on expected volume and ambient temperature of this effluent, this situation has the potential to increase temperatures downstream of this source. More data on expected volumes and temperature of water leaving the 42-inch drainage pipe and entering the tributary is necessary to evaluate this concern. 4

3.4.3 Vegetation manipulation within riparian habitat

The proposed removal and trimming of trees and probable disturbance of riparian vegetation at the following stream and river crossings: A-S15, A-S16, A-S30, A-S31 and C-S1 have the potential to negatively affect Critical Habitat (65:32 FR 7764) that was designated for Coho salmon. Of particular concern are crossing #s: A-S30, A-S31 and C-S1 proposed along Bone Cr., Johnson Cr. and Sumas Cr. These tributaries support spawning habitat that is vulnerable to impacts resulting from vegetation removal and bank disturbance that may contribute to reduced stream shading and limit LWD recruitment into the stream channel. 5

Tree removal and vegetation management at Nooksack River crossing #s: A-S15 and A-S16 are also of concern with regard both to potential effects on salmon habitat as well as impacts to bald eagles roosting and nesting within the area. The Wild Salmonid Policy (WDFW 1997) states the following riparian buffer guidelines (Table 1) recommending a no disturbance policy within buffer zones.

Table 1. Wild Salmonid Policy Riparian buffer guidelines derived from DNR WAC 222-16-030 (figures refer to horizontal measurements on each side of stream channel starting from normal high water, or full channel migration).

Stream Type	Buffer (ft.)
Types 1-3	100 –150
Type 4	≥ 100
Type 5	≥ 50
Unidentified, salmon-bearing >5 ft. wide	100 - 150
Other unidentified streams, <5 ft. wide	50 – 100

Removal or manipulation (maintained height) of selected trees may occur on a by-site basis if it is determined actions will not result in significant negative affect to the proper function of the riparian area. In cases where tree removal is unavoidable, adverse impacts should be fully mitigated. In order to conduct this site specific analysis, additional information will be required regarding the species, numbers and diameters of 6

trees that are proposed for removal and topping / trimming and at what height trees within the corridor will be maintained.

The western toad, (*Bufo boreas*) is a Washington State Candidate and the project area is within the core habitat identified for this species. No mention is made of the western toad having been considered during this process. 7

Freshwater Wetlands

Wetlands are a designated Washington Sate Priority Habitat due to their importance to a variety of wildlife species including waterfowl, passerines, amphibians, and reptiles during part or all of their life histories. In addition, these habitat types fulfill a critical function in maintaining aquifers and groundwater quantity and quality, intercepting and retaining surface runoff preventing flooding, and other vital functions. Properly functioning wetlands are declining throughout the world, nationally and in Washington State. Peters (1990) estimates a 31% loss of wetland habitat in Washington State from pre-settlement conditions.

Wetland habitat is susceptible to disturbance, such as vegetation removal and shoreline alteration, especially where soils tend to be saturated. Altering the contours and gradient of wetland shorelines, even slightly, can dramatically alter the plant community in the affected area, thus impacting wildlife use and benefits. The removal of vegetation including trees, shrubs, and forbs may significantly affect shoreline stability, wetland hydrology, and proper functioning of the wetland.

Negative impacts on existing wetland habitat will result from the proposed S2GF construction. Fill associated with construction at the S2GF site will remove wetlands and eliminate existing open water habitat. Additional impacts will be caused by associated gas pipeline installation, the installation of new water/wastewater lines and transmission lines, as well as right-of-way maintenance. The Washington Department of Ecology requires a compensatory mitigation plan for adverse wetland impacts that are "unavoidable". From a fish and wildlife standpoint, wetland impacts include the reduction or loss of wetland vegetative communities, shoreline gradient and/or hydrology. Impacts resulting from both temporary and ongoing project actions will negatively affect wildlife species' breeding, foraging, cover, and nesting opportunities. 8

As defined in the DEIS, there are a number of specific proposed actions that will result in direct impacts to wetland vegetation and shorelines. Wetland tables located in Appendix C of the DEIS are a helpful summary of proposed actions and estimated impacts of the project, however, there are several ambiguous statements with regard to extent of vegetation clearing, sediment/shoreline disturbance, and nature of ROW and corridor maintenance following construction and installation. For example, Table C-6 of the 9

DEIS includes the following non-specific language in relation to individual wetlands: trimming red cedars in the buffer zone, trimming Douglas firs in the buffer zone, and tree removal in buffer zones. Additional information will be necessary to clarify those impacts.

In order to protect the full range of functions and values of a wetland it is also necessary to protect a buffer area around the wetland. Disturbance that extends into the buffer, rapidly erodes wildlife value of the wetland. With respect to wetland buffer widths, the following figures are intended by DOE (1998) to be used in conjunction with the 4-tiered rating system that you have applied in the wetland delineation process: 9

***Buffer widths for wetland categories I - IV (DOE 1998):**

Category I minimum buffer width:	200 ft.
Category II	100 ft.
Category III	50 ft.
Category IV	25 ft.

Evaluating wetland habitat effects of the pipeline and transmission lines will also require additional information and clarification with regard to specific actions involving long-term maintenance of the corridors. 10

We would appreciate the opportunity to review any supplemental information that is provided to clarify impacts or mitigative measures associated with fish and wildlife or their habitat. Thank you for the opportunity to provide these comments. We hope that you find them helpful.

Sincerely,

Curt Leigh,
Mitigation and Restoration Division

CC: David Mudd, WDFW
Ted Muller, WDFW
Mary McCrea, AAG
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