

Addendum to the  
Biological Assessment  
Endangered, Threatened, Proposed & Candidate Species

Sagebrush Power Partners LLC  
Kittitas Valley Wind Power Project

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August 20, 2008

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During the review of the Biological Assessment (BA) for the Sagebrush Power Partners, Kittitas Valley Wind Project, it was determined that an evaluation of the potential project impacts on Essential Fish Habitat (EFH) for Pacific salmon was warranted. This addendum to the BA provides an impact assessment on EFH for the Kittitas Valley Wind Project.

***Pacific Salmon***

Three anadromous species of Pacific salmon that potentially occur in the Columbia River basin are listed as threatened species, chinook salmon (*Oncorhynchus tshawytscha*), chum salmon (*Oncorhynchus keta*), and coho salmon (*Oncorhynchus kisutch*), under the Endangered Species Act (ESA). The lifecycle of each species is variable but typically involves time in freshwater streams, estuaries, and open ocean. Juvenile salmon will rear in the freshwater streams or rivers for up to one or two years before migrating to estuarine habitats where they rear and undergo physiological changes for life in saltwater. Depending on the species, maturity is reached in 2-6 years at which time the adults return to the same freshwater stream where they originated for spawning. These species historically occurred in major river drainages throughout the Pacific Northwest but due to numerous factors including habitat degradation and fragmentation, blockage of migratory corridors, poor water quality, past fisheries management practices, and the introduction of non-native species, the species populations and range have experienced dramatic declines. Habitat components that influence salmon distribution and abundance in freshwater streams (spawning, incubation, and rearing habitat) include unobstructed

migratory corridors, water temperature, substrate conducive to spawning and incubation, instream cover for rearing juveniles, and good nutrient cycling from spawning adults through the aquatic macroinvertebrate community (Cederholm et al. 2000).

### ***Essential Fish Habitat***

Essential Fish Habitat is defined by the Sustainable Fisheries Act (Magnuson-Stevens Act) as waters and substrate necessary to fish for a full life cycle including spawning, breeding, feeding, or growth to maturity. Waters include aquatic areas and the associated physical, chemical, and biological properties that are used by fish, and substrate includes the sediment, bed layer, underwater structures, and associated biological communities. EFH for Pacific salmon species includes freshwater, estuary, and ocean habitats.

The EFH evaluation for inclusion in a typical consultation for ESA compliance would include a description of the proposed action; a description of EFH, if any, within the action area; potential effects of the proposed action; proposed conservation measures to avoid, minimize or offset potential adverse effects; and a conclusion of whether EFH would be adversely modified. The action area and proposed action for the Kittitas Valley Wind Project are included in the original BA (April 30, 2008).

The nearest known freshwater stream to the Project area potentially occupied by Pacific salmon is the Yakima River (WDFW PHS 2002). Chinook salmon are known historically from much of the Columbia River basin and potentially occur in Kittitas County via the Yakima River. Chum salmon and coho salmon are known from the lower reaches of the Columbia River basin but are unlikely to occur in Kittitas County (WDFW 2008). The Project extends over an approximately three by four mile block of land north of the Yakima River, which consists primarily of north-south trending upland ridges. Between the ridges are ephemeral drainages of Dry Creek and associated tributary drainages that flow towards the Yakima River to the south. There are no perennial streams or fish habitat in the project area.

### ***Potential Impacts***

As currently designed the Project is not likely to affect EFH or Pacific salmon due to lack of suitable stream habitat in the Project area and the unlikely probability that the Project will affect streams and other aquatic habitats. Conservation measures incorporated into the project are described in the BA. Several of the measures are included to minimize impacts to drainages and streams and include maintaining best management practices within the construction zones to minimize adjacent habitat disturbance and obtaining and adhering to the NPDES permit stipulations, including erosion control measures.

### ***Conclusion***

The Project is not likely to affect EFH due to lack of suitable stream habitat in the Project area and the unlikely probability that the Project will affect streams and other aquatic

habitats. **Implementation of the Project will have “no effect” on EFH or Pacific salmon species. The Project will not adversely modify EFH.**

### *References*

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