



NORTHWEST ECONOMIC ASSOCIATES

MEMORANDUM

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TO: Edward Maillett, U.S. Fish and Wildlife Service

FROM: Krieg Brown, ENTRIX, Inc.

DATE: November 28, 2006

RE: Economic Impacts associated with Final Critical Habitat Designation for the Three Willamette Species

The September 2006 Final Economic Analysis of Critical Habitat Designation (CHD) for the Three Willamette Species (Final EA) assesses the potential economic impacts associated with the proposed designation of critical habitat for the Willamette Valley population of Fender's blue butterfly (*Icaricia icarioides fenderi*), Kincaid's lupine (*Lupinus sulphureus* ssp. *kincaidii*), and Willamette daisy (*Erigeron decumbens* var. *decumbens*) (hereinafter, FBB, KL, and WD individually, respectively, or "species" collectively) as described by the U.S. Fish and Wildlife Service (Service) in the Proposed Rule.¹ The Final EA is consistent with the designation as described in the Proposed Rule and, therefore, does not reflect changes made to the proposed critical habitat in the Final Rule.

The Final EA quantifies potential economic impacts of species conservation efforts in the lands described in the Proposed Rule at \$25.3 to \$52.7 million in undiscounted dollars, or \$15.3 to \$32.6 million in present value terms using a discount rate of seven percent and \$19.2 to \$40.3 million using a discount rate of three percent. In annualized terms, potential costs associated with the proposed designation range from \$1.4 to \$3.1 million at seven percent discount rate and \$1.3

¹ U.S. Fish and Wildlife Service, November 2, 2005, "Designation of Critical Habitat for the Fender's blue butterfly (*Icaricia icarioides fenderi*), *Lupinus sulphureus* ssp. *kincaidii* (Kincaid's Lupine), and *Erigeron decumbens* var. *decumbens* (Willamette Daisy); Proposed Rule" *Federal Register*, Vol. 70, No. 211, pp. 66492-66599.

to \$2.7 million at three percent discount rate. Following the re-evaluation of the areas proposed as critical habitat, the Service has excluded from final critical habitat the areas that do not provide features essential to the conservation of the species. Pursuant to section 4(b)(2) of the Act, because of site specific management plans and formal voluntary agreements for species conservation, the Service also excluded lands owned by Mallonee Farms in Lewis County, Washington; private timberland in Douglas County, Oregon, owned by Roseburg Forest Products, Seneca Jones Timber Company, and Lone Rock Timber Management Company; and lands managed by the Bureau of Land Management and U.S. Forest Service in Douglas County, Oregon. In total, approximately 180 acres of the area originally proposed as critical habitat (3,900 acres) was excluded from the final designation (3,720 acres).²

Exhibit 1 provides an estimate of the economic impacts of species conservation efforts in areas designated as final critical habitat for FBB, KL, and WD. The undiscounted costs are estimated to range between \$24.6 and \$51.9 million over 20 years, or \$14.9 to \$32.1 million assuming a seven percent discount rate and \$18.6 to \$39.7 million assuming a three percent discount rate. In annualized terms, potential costs are expected to range from \$1.4 to \$3.0 million at seven percent discount rate and \$1.2 to \$2.7 million at three percent discount rate. Impacts in the Final EA related to conservation, development, and administrative costs of section 7 consultations have been adjusted to coincide with the final designation.

In undiscounted terms, impacts related to the 180 acres excluded from final designation totaled approximately \$730,000 to \$810,000. About 90 percent (\$710,000) of these undiscounted impacts stem from reducing fuel loads, eradicating invasive and exotic species, curbing woody succession, species monitoring, and other similar species conservation activities on the private and public lands excluded from final designation. Most of the remaining impacts (\$20,000 to \$100,000) are related to development restrictions (i.e., losses of land value) on private lands that are not part of the final designation.

² U.S. Fish and Wildlife Service, October 31, 2006, "Designation of Critical Habitat for the Fender's blue butterfly (*Icaricia icarioides fenderi*), *Lupinus sulphureus* ssp. *kincaidii* (Kincaid's Lupine), and *Erigeron decumbens* var. *decumbens* (Willamette Daisy); Final Rule" *Federal Register*, Vol. 71, No. 210, pp. 63862-63977.

Exhibit 1:

**Economic Impacts of Conservation Efforts for the Three Willamette Species within
the Areas Designated as Final Critical Habitat**

Total Post-designation Impacts (2007-2026)	Impacts Estimated in Final EA	Impacts Estimated for Final CHD
Undiscounted	\$25.3 million – \$52.7 million	\$24.6 million – \$51.9 million
Present Value (7% discount rate)	\$15.3 million – \$32.6 million	\$14.9 million – \$32.1 million
Annualized (7% discount rate)	\$1.4 million – \$3.1 million	\$1.4 million – \$3.0 million
Present Value (3% discount rate)	\$19.1 million – \$40.3 million	\$18.6 million – \$39.7 million
Annualized (3% discount rate)	\$1.3 million – \$2.7 million	\$1.2 million – \$2.7 million