



INTERNATIONAL

# Memorandum

To: Edward Maillett  
From: CRA International  
Date: May 11, 2007  
Subject: **ECONOMIC IMPACTS OF CONSERVATION EFFORTS IN DESIGNATED CRITICAL HABITAT FOR THE SUISUN THISTLE AND SOFT BIRD'S BEAK**

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On Thursday, April 12, 2007, the U.S. Fish and Wildlife Service (the Service) designated critical habitat for the Suisun thistle (*Cirsium hydrophilum* var. *hydrophilum*) and the soft bird's beak (*Cordylanthus mollis* ssp. *mollis*). A total of approximately 2,052 acres in Solano County were designated critical habitat for the Suisun thistle; approximately 71 acres of proposed critical habitat for the Suisun thistle were excluded in the Final Rule. A total of approximately 2,276 acres in Solano, Napa, and Contra Costa Counties were designated critical habitat for the soft bird's beak; approximately 37 acres of proposed critical habitat for the soft bird's beak were excluded in the Final Rule. This memorandum summarizes the economic impact of conservation activities in the geographic areas that were identified in the Final Rule.<sup>1</sup>

In the Final Rule, the Service removed 18 acres of private land from the western edge and removed 53 acres of State land from the northeastern edge of unit 2 for the Suisun thistle. In addition, the Service combined the subunits 2a and 2b into a single unit. For the soft bird's beak habitat, the Service removed 23 acres of State land in the middle of the eastern portion of unit 1 and removed 14 acres of State land from the northwestern portion of unit 5. The Final Rule describes the details of the geographic scope of final critical habitat and reasons for excluding certain units of proposed critical habitat.<sup>2</sup>

The table below summarizes the economic impacts according to each threat in areas that were designated critical habitat for the Suisun thistle and the soft bird's beak.

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<sup>1</sup> 72 FR 18518.

<sup>2</sup> 72 FR 18522.

<b>Table: Summary of Economic Impacts</b>			
<b>Threat</b>	<b>Undiscounted Dollars</b>	<b>Present Value (3%)<sup>1</sup></b>	<b>Present Value (7%)<sup>1</sup></b>
Mosquito Abatement Activities	\$0	\$0	\$0
Cattle and Feral Pigs			
Fencing Installation and Repairs <sup>2</sup>	\$672,989	\$664,037	\$656,658
Lost Grazing Revenue <sup>3</sup>	\$361,000	\$268,538	\$191,222
Animal Control Expert <sup>3</sup>	\$406,720	\$302,548	\$215,440
Operation of the Suisun Marsh Salinity Control Gates	\$0	\$0	\$0
Increase in Invasive Plants	\$0	\$0	\$0
Damage to Protected Species During Invasive Plant Removal	\$0	\$0	\$0
Urban or Residential Encroachment	Unknown	Unknown	Unknown
Presence of <i>Rhynocyllus conicus</i>	Negligible	Negligible	Negligible
General Foot and Off-road Vehicle Traffic <sup>4</sup>	\$788,440	\$779,489	\$772,110
Presence of <i>Lipographis fenestrella</i> larvae	Negligible	Negligible	Negligible
Contamination from Bay Oil Spills	\$0	\$0	\$0
Industrial or Commercial Encroachment	\$0	\$0	\$0
<b>Total<sup>5</sup></b>	<b>\$1,678,484</b>	<b>\$1,472,899</b>	<b>\$1,301,095</b>
<b>Annualized Cost</b>		<b>\$96,118</b>	<b>\$114,780</b>
Notes:			
1. Guidance provided by the OMB specifies the use of a real rate of seven percent. In addition, OMB recommends sensitivity analysis using other discount rates such as three percent, which some economists believe better reflects the social rate of time preference. (U.S. Office of Management and Budget, Circular A-4, September 17, 2003 and U.S. Office of Management and Budget, "Draft 2003 Report to Congress on the Costs and Benefits of Federal Regulations; Notice," 68 Federal Register 5492, February 3, 2003.			
2. Includes past fencing installation cost as well as one time fencing costs assumed to occur at time of critical habitat designation.			
3. Costs are ongoing and calculated over a twenty year period, from 2006 to 2025.			
4. These are one time costs assumed to occur at time of critical habitat designation. Some fencing costs would duplicate costs calculated as part of the cattle and feral pig fencing costs and will not be included in the total.			
5. The total is not the sum of all the items in the column, as some of the costs of fencing to separately manage the threats of General Foot and Off-road Vehicle Traffic and Cattle and Feral Pigs will overlap when the two threats are managed simultaneously.			