

SUPPLEMENTAL ECONOMIC IMPACT ANALYSIS OF PROPOSED CRITICAL HABITAT FOR THE MAUI PLANTS

1. INTRODUCTION

In April 2002, the U.S. Fish and Wildlife Service (the Service) proposed designation of critical habitat under the Endangered Species Act of 1973, as amended (the Act) for the Maui and Kaho‘olawe Plants (the Plants). This proposal encompassed approximately 126,531 acres of land on the island of Maui in Hawai‘i. Because the Act requires an economic analysis of the critical habitat designation, the Service released a “Draft Economic Impact Analysis of Proposed Critical Habitat for Threatened and Endangered Plants on Maui” (hereafter the DEA) for public review and comment in September 2002. Subsequently, an Addendum to the DEA was prepared to update the DEA based on public comment and new information obtained after the DEA was published. The DEA and Addendum only addressed impacts to areas proposed for designation in the proposed rule.

The Service requested this Supplemental Economic Impact Analysis because a recent federal district court opinion (Center for Biological Diversity v. Norton, Civ. No. 01-409 TUC DCB (D. Ariz. Jan. 13, 2003)) called into question the Service’s interpretation of Section 3(5)(a) of the Act, which defines critical habitat. The Service’s position prior to this recent court opinion was not to define areas as critical habitat that do not need special management considerations or protection. The proposed critical habitat designation did not include Kapunakea Preserve, Waikamoi Preserve, the fenced area within the Hanawi Natural Area Reserve, and parts of Pu‘u Kukui Watershed Management Area because the Service found that the Plants and their habitats within these three areas received long-term protection and management and therefore were not in need of additional special management considerations or protection. (67 FR 15856, 15906-15908). Therefore, in light of the uncertainty created by the recent court opinion described above, this Supplemental Economic Impact Analysis analyzes the economic impact of critical habitat designation on Kapunakea Preserve, Waikamoi Preserve, the fenced area of the Hanawi Natural Area Reserve, and Pu‘u Kukui Watershed Management Area. Methodology for estimating impacts, scope of analysis, and timeframe of analysis (ten years) are identical to those used in the DEA and Addendum.

2. RELEVANT AREAS

Kapunakea Preserve, Waikamoi Preserve, the fenced area of the Hanawi Natural Area Reserve, and Pu‘u Kukui Watershed Management Area together cover approximately 15,210 acres. Kapunakea Preserve and Waikamoi Preserve are managed by The Nature Conservancy (TNC) and Pu‘u Kukui Watershed Management Area is managed by the Maui Pineapple Company (MPC) as part of the Natural Area Partnership (NAP) program. Under the Natural Area Partnership (NAP) program, the State provides two-thirds of the management costs for private landowners who agree to protect permanently intact native ecosystems, essential habitat for threatened and endangered

species, or areas with other significant biological resources. Hanawi Natural Area Reserve is managed by the State Department of Land and Natural Resources (DLNR) as part of the Natural Area Reserves, a program based on the concept of protecting and preserving representative samples of Hawai'i biological ecosystems.

Kapunakea Preserve consists of approximately 1,290 acres in the West Maui Mountains. Kapunakea Preserve supports at least ten different native natural communities ranging from almost dry lowland forest at around 1,000 feet to wet montane forests and bogs at 5,400 feet near the summit. As a result of this diversity, Kapunakea Preserve is home to 24 species of rare plants, including five that are listed as endangered. In addition, Kapunakea Preserve provides habitat for rare land snails and native bird species. Finally, Kapunakea Preserve is an integral part of a contiguous, managed watershed that provides water to area residents, farms and businesses. Kapunakea Preserve was established in 1992 when Amfac/JMB Hawai'i Inc. granted TNC a perpetual conservation easement over the area. In addition to being managed through the NAP program, Kapunakea Preserve is part of the West Maui Mountains Watershed Partnership.

Waikamoi Preserve consists of approximately 5,141 acres in East Maui, on the northeast flank of Haleakala. Situated in the heart of the East Maui watershed, Waikamoi Preserve protects part of the best remaining forest on Maui and provides a sanctuary for hundreds of native Hawaiian species, many of which are endangered or rare. In addition, the Preserve helps increase regional protection efforts for the East Maui Watershed, which supplies over 50 billion gallons of water annually to Maui's residents, businesses, and agricultural community. Waikamoi Preserve was established in 1983 when Haleakala Ranch Company granted TNC a perpetual conservation easement of the area. In addition to being managed through the NAP program, Waikamoi Preserve is part of the East Maui Watershed Partnership.

Hanawi Natural Area Reserve consists of approximately 7,500 acres on the north flank of Haleakala. It contains rare subalpine grassland as well as montane and lowland semi-wet and wet grasslands and forests. Hanawi Natural Area Reserve provides some of the best remaining native forest bird habitat and supports several rare and endangered birds, including the po'ouli of which only three known birds remain. Fencing and ungulate removal in the upper areas (approximately 1,618 acres) protects rare plants as well as the native birds. Hanawi Natural Area Reserve is owned by the State and managed under the Natural Area Reserve program and is also part of the East Maui Watershed Partnership.

Pu'u Kukui Watershed Management Area consists of approximately 7,161 acres in the West Maui Mountains. The largest single private nature preserve in Hawai'i, Pu'u Kukui Watershed Management Area is home to over 40 rare and endangered native plants and is a critical component of regional protection efforts of the West Maui Watershed. The land is owned and has been managed by MPC, a subsidiary of Maui Land & Pineapple, Inc. (MLP), as part of the NAP program since 1994. In addition, Pu'u Kukui Watershed Management Area is part of the West Maui Mountains Watershed Partnership.

3. SECTION 7-RELATED COSTS

3.a. Anticipated Activities

As discussed above, all four areas are managed to maintain the native ecosystems as intact watershed and to protect the habitat of rare plants and animals within each area. Anticipated activities may include: (1) ungulate control; (2) fencing; (3) alien species control and/or removal; (4) natural resources monitoring and research; (5) rare species protection, including outplanting and seed collection; (6) invertebrate and small mammal control; and (7) public outreach, including guided hikes and public lectures. These activities are not anticipated to change significantly during the ten-year timeframe of this analysis.

3.b. Federal Involvement

Ongoing management activities in Kapunakea Preserve and Waikamoi Preserve, are supported by funding from the State through the NAP program and from TNC. Ongoing management activities in Pu'u Kukui Watershed Management Area are supported by funding from the State through the NAP program and from MPC. Ongoing management activities in Hanawi Natural Area Reserve are supported by State funding. It is likely that the State, TNC, or MPC will seek additional Federal funding from the Service, from the Natural Resources Conservation Service (NRCS), or from the Environmental Protection Agency (EPA) to support specific projects in the future.

3.c. Consultation Cost

C Total Section 7 Costs: \$20,500 to \$27,800

As noted previously, all four areas participate in existing Watershed Partnerships: Kapunakea Preserve and Pu'u Kukui Watershed Management Area are part of the West Maui Mountains Watershed Partnership, while Waikamoi Preserve and Hanawi Natural Area Reserve are part of the East Maui Watershed Partnership.

The DEA discussed possible section 7 costs related to conservation activities conducted by the West Maui Mountains Watershed Partnership and the East Maui Watershed Partnership (see Chapter VI, Section 3.f. of the DEA). The DEA recognized that the Watershed Partnership participants could seek Federal funding to support conservation activities in the watershed. The DEA estimated that over the next ten years, the Service would conduct a programmatic consultation for both the West Maui Mountains Watershed Partnership and the East Maui Watershed Partnership addressing potential future conservation activities to avoid the need for separate consultations for each individual conservation activity funded in the future. The DEA anticipated that each programmatic consultation would be reinitiated once or twice over the next ten years to cover changes in the type of activity or location of activities covered in the initial consultation. The DEA

reported total section 7 consultation costs of \$44,600 to \$60,300 for each Watershed Partnership, for a total of \$89,200 to \$120,600 for both Watershed Partnerships.

The DEA's cost estimate utilized the High cost for the programmatic consultation and the Medium cost for reinitiations from Table VI-1 of the DEA. The High estimate took into account the extensive amount of overlap between each Watershed Partnership and the proposed critical habitat; approximately 32,000 acres of the West Maui Mountains Watershed Partnership and approximately 34,000 acres of the East Maui Mountains Watershed Partnership overlapped with the proposed critical habitat designation.

Pu'u Kukui Watershed Management Area

Most of the Pu'u Kukui Watershed Management Area (90 percent) was included in the proposed critical habitat designation. Costs associated with conservation activities in this area were already estimated in the DEA as part of costs reported for the West Maui Mountains Watershed Partnership, but costs were not specifically broken down by area. As a consequence, any new designation of the portion of the area not included in the proposed critical habitat designation would not significantly enlarge the Watershed Partnership area requiring consultation. Therefore, for purposes of this analysis, the subsection of prior reported costs attributable to Pu'u Kukui Watershed Management Area is monetized as a subsection of prior reported costs below.

Pu'u Kukui Watershed Management Area composed about 20 percent of the West Maui Mountains Watershed Partnership area overlapping with the proposed critical habitat designation. As noted above, total section 7 consultation costs for the West Maui Mountains Watershed Partnership was \$44,600 to \$60,300. Thus, an estimate of section 7 consultation costs for Pu'u Kukui Watershed Management Area is \$8,900 to \$12,100 ($\$44,600 \times 20\%$; $\$60,300 \times 20\%$).

Kapunakea Preserve, Waikamoi Preserve, Hanawi Natural Area Reserve

Kapunakea Preserve, Waikamoi Preserve and the fenced area of Hanawi Natural Area Reserve (together approximately 8,050 acres) were not included in the proposed critical habitat designation. Their designation as critical habitat would enlarge the Watershed Partnership area requiring consultation by 13 percent ($8,050 / (32,000 + 34,000)$). Because potential projects in these three areas are similar to the types of projects planned for their respective Watershed Partnership, it is anticipated that consultation for these areas would require an additional level of effort proportional to the amount of additional land. Thus, estimated section 7 consultation costs for Kapunakea Preserve, Waikamoi Preserve, and the fenced area of Hanawi Natural Area Reserve are approximately \$11,600 to \$15,700 ($\$89,200 \times 13\%$; $\$120,600 \times 13\%$).

Summary

Total estimated section 7 consultation costs for Kapunakea Preserve, Waikamoi Preserve, the fenced area of the Hanawi Natural Area Reserve, and Pu'u Kukui Watershed Management Area

are approximately \$20,500 to \$27,800 (\$8,900 + \$11,600; \$12,100 + \$15,700). Again, while section 7 costs related to Kapunakea Preserve, Waikamoi Preserve, and the fenced area of Hanawi Natural Area Reserve represent costs that were not reported in the DEA, costs related to the Pu'u Kukui Watershed Management Area reflect monetization of a subsection of prior reported costs and, therefore, represent a portion of costs already reported in the DEA.

3.d. Project Modification Cost

C Total Section 7 Costs: Minor

In general, conservation projects proposed by TNC, MPC, or the State in accordance with the established management plans are designed to preserve and protect the wildlife habitat within the existing preserves by preventing ungulates from entering biologically sensitive areas, reducing fire potential, controlling weeds and invasive species, etc. While the Service may recommend minor changes during the consultation process, these recommendations would generally enhance the success of the planned activity. Thus, no major project modifications are anticipated.

4. SECTION 7-RELATED BENEFITS

As discussed in greater detail in the DEA, critical habitat designation is likely to provide economic benefits to the region, as well as to society as a whole. These benefits fall into two categories. Direct benefits are those directly attributable to the activities associated with compliance with the critical habitat designation, while indirect benefits arise from preservation of threatened and endangered species and other environmental improvements encouraged by critical habitat designation.

However, the development of quantitative estimates associated with the benefits of designating Kapunakea Preserve, Waikamoi Preserve, the fenced area of Hanawi Natural Area Reserve, and Pu'u Kukui Watershed Management Area as critical habitat is impeded by the scarcity of available studies and information relating to the size and value of beneficial changes that are likely to occur as a result of listing a species or designating critical habitat. In particular, the following information is not currently available: 1) quantified data on the value of the Maui species; and 2) quantified data on the change in the quality of the ecosystem and the species as a result of the designation (for example, how many fewer ungulates will roam into the critical habitat, how many fewer invasive plants will be introduced as a result, and therefore how many more of the endangered plants will be present in the area). As a result, it is not possible, given the information that is currently available, to estimate the value associated with ecosystem preservation that could be ascribed to critical habitat designation versus the existing planned conservation management.

As noted in the DEA, the economic analysis is not intended to provide a comprehensive analysis of the benefits that could result from section 7 of the Act in general, or of critical habitat designation in particular. In short, the Service believes that the benefits of critical habitat

designation are best expressed in biological terms that can be weighed against the expected costs of the rulemaking.

5. IMPACT TO SMALL ENTITIES

Under the Regulatory Flexibility Act (RFA) (as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever a Federal agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of an agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended the RFA to require Federal agencies to provide a statement of the factual basis for certifying that a rule will not have a significant economic impact on a substantial number of small entities.

The RFA/SBREFA does not explicitly define either “substantial number” or “significant economic impact.” Consequently, to assess whether a “substantial number” of small entities is affected by this designation, this analysis considers the relative number of small entities likely to be impacted in the area. Similarly, this analysis considers whether or not entities incur a “significant economic impact.” Only small entities that are expected to be directly affected by the designation are considered in this portion of the analysis. This approach is consistent with several judicial opinions related to the scope of the RFA.¹

The following entities could be directly impacted by designation of Kapunakea Preserve, Waikamoi Preserve, the fenced area of Hanawi Natural Area Reserve, and Pu‘u Kukui Watershed Management Area:

Federal:

- Service (All projects, activities, land uses)
- NRCS (funding conservation activities)
- EPA (funding conservation activities)

State:

- State Department of Land and Natural Resources (oversight of NAP program; conservation activities – Hanawi Natural Area Reserve)

¹ See *Mid-Tex Elec. Co-Op, Inc. v. FERC*, 773 F.2d 327 (D.C. Cir. 1985); *American Trucking Ass'ns, Inc. v. EPA*, 175 F.3d 1027 (D.C. Cir. 1999), *aff'd in part and rev'd in part on other grounds*, *Whitman v. American Trucking Ass'ns*, 531 U.S. 457 (2001); and *Cement Kiln Recycling Coalition v. EPA*, F.3d 855 (D.C. Cir. 2001).

For-profit:

- MPC (conservation activities – Pu‘u Kukui Watershed Management Area)

Nonprofit:

- TNC (conservation activities – Kapunakea Preserve, Waikamoi Preserve)

The RFA/SBREFEA considers “small entities” to include small governments, small organizations, and small businesses (5 U.S.C. §601). The following discussion examines each entity potentially impacted from the list above to determine whether it would be considered “small” under the RFA/SBREFEA.

For the purposes of the RFA/SBREFEA, Federal agencies are not considered small governments. As such, the Service, NRCS, and EPA are not considered further in this portion of the supplemental economic analysis. For the purposes of the RFA/SBREFEA, State governments are not considered small government jurisdictions. As such, the State Department of Land and Natural Resources is not considered further in this portion of the supplemental economic analysis.

The RFA/SBREFEA requires that agencies use the Small Business Administration’s (SBA) definition of “small business” as codified at 13 C.F.R. 121.201. MPC, a subsidiary of a larger Hawai‘i corporation (MLP), has pineapple as its principal business activity. The SBA defines a farmer as small if its annual sales are less than \$750,000. In 2002, MPC had pineapple revenues of approximately \$99 million. Under these circumstances, MPC cannot be considered a small business.

The RFA/SBREFEA defines “small organization” as any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. While this definition leaves some room for interpretation, TNC is the Hawai‘i chapter of a national organization that can be considered dominant in its field of habitat conservation and management. Thus, it is not likely to be considered a “small organization.”

Based on the analysis above, implementation of the Act’s section 7 provisions for Kapunakea Preserve, Waikamoi Preserve, the fenced area of Hanawi Natural Area Reserve, and Pu‘u Kukui Watershed Management Area will not impact any “small entities,” and thus, critical habitat designation of these areas would not have a significant economic impact on a substantial number of small entities.

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