

intended designation ranges from approximately \$173,000 to \$618,000.

In addition, the final economic analysis discusses economic benefits in qualitative terms rather than providing quantitative estimates because of the lack of information available to estimate the economic benefits of endangered species preservation and ecosystem improvements.

A more detailed discussion of our economic analysis is contained in the DEA and the Addendum. Both documents are included in our administrative record and available for inspection at the Pacific Islands Fish and Wildlife Office (*see ADDRESSES* section).

Although we do not find the economic costs to be significant, they were considered in balancing the benefits of including or excluding areas from critical habitat. The likely cost of designating critical habitat for the Blackburn's sphinx moth is estimated to be between \$118,380 to \$173,900 per year over the next 10 years.

Approximately 4,717 ha (11,656 ac) within two proposed critical habitat units (Units 1 and 2) are located on private lands owned by Ulupalakua and Haleakala Ranches. We are excluding both ranches from designation because the benefits provided by these two landowners' voluntary conservation activities within and adjacent to these units outweigh the benefits provided by a designation of critical habitat.

#### Ulupalakua Ranch

The portion of proposed Unit 1 on Ulupalakua Ranch lands is occupied habitat for Blackburn's sphinx moth.

As discussed previously, conservation of the moth will require self-sustaining, reproducing populations located in a geographic array across its range, with population numbers and population locations of sufficient robustness to withstand periodic threats due to natural disaster or biological threats. The highest priority conservation tasks include active management, such as host plant propagation and reintroduction, fire control, alien species removal, and ungulate fencing. Failure to implement these active management measures, all of which require voluntary landowner support and participation, virtually assures the extirpation of this moth species from those areas. Many of these types of conservation actions in this area of Maui are carried out as part of Ulupalakua Ranch's participation with our Partners for Fish and Wildlife and other landowner incentive-based programs, and by actions taken on the landowner's initiative in areas outside the

partnership area. These activities, which are described in more detail below, require substantial voluntary cooperation by Ulupalakua Ranch.

The following analysis describes the likely conservation benefits of a critical habitat designation compared to the conservation benefits without critical habitat designation. We paid particular attention to the following issues: Whether critical habitat designation would confer regulatory conservation benefits on this species; whether the designation would educate members of the public such that conservation efforts would be enhanced; and whether a critical habitat designation would have a positive, neutral, or negative impact on voluntary conservation efforts on this privately owned land.

If excluding an area from a critical habitat designation will provide substantial conservation benefits, and at the same time including the area fails to confer a counter-balancing benefit to the species, then the benefits of excluding the area from critical habitat outweigh the benefits of including it. The results of this type of evaluation will vary significantly depending on the landowners, geographic areas, and species involved.

#### (1) Benefits of Inclusion

Critical habitat was proposed for Blackburn's sphinx moth on 3,533 ha (8,730 ac) in the Ulupalakua Ranch portion of proposed Unit 1. The primary direct benefit of inclusion of this portion of proposed Unit 1 as final critical habitat would result from the requirement under section 7 of the Act that Federal agencies consult with us to ensure that any proposed Federal actions do not destroy or adversely modify critical habitat. Without critical habitat, some site-specific projects might not trigger consultation requirements under the Act in areas where species are not currently present. In contrast, Federal actions in areas occupied by listed species would still require consultation under section 7 of the Act. The portion of Unit 1 being excluded is occupied by the moth, and thus would be subject to consultation anyway. *See e.g.*, 50 CFR section 402.12 (biological assessments are based on a list of species present in the action area).

Historically, we have conducted no formal or informal consultations under section 7 on Maui for Blackburn's sphinx moth. We have conducted only two informal intraservice consultations regarding Ulupalakua Ranch, and these have been on the effects of fencing and outplanting of certain endangered plants including *Alectryon Micrococcus* var.

*auwahiensis* and *Zanthoxylum hawaiiense* within the Puu Makua Partnership Project area and the Auwahi Partnership Project area (*see discussion below*). Current and likely future economic activities on the ranch include cattle grazing, diversified agriculture such as strawberry and papaya production, eco-tourism, wild fowl hunting, and lease of lands for cellular phone and radio transmission towers. The most likely future Federal involvement on these lands includes the development of voluntary conservation agreements between the ranch and Federal agencies such as the Service and NRCS. Additionally, it is possible the ranch may apply for and receive Farm Service loans for land improvement projects pertaining to agricultural needs or to enhance habitat for wild fowl.

As a result of the low level of previous Federal activity on Ulupalakua Ranch, and after considering the likely future Federal activities in this area, it is our opinion that there is likely to be a low number of future Federal activities that would affect designated Blackburn's sphinx moth critical habitat on Ulupalakua Ranch. Even if a Federal action is proposed in the future, it would likely be subject to section 7 consultation because of the presence of the moth. The Final Economic Analysis (FEA) prepared for this rule does discuss the possibility that a re-zoning of some lands from agricultural status to conservation status could occur which might limit certain agricultural activities. However, the FEA concedes that the possibility of re-zoning of agricultural lands is low or unlikely. Furthermore, there are different levels of conservation district land use categories, and in the event of a potential re-zoning, activities such as grazing would likely continue. Therefore, we anticipate little direct regulatory benefits from including Ulupalakua Ranch lands in critical habitat.

Another possible benefit if including these lands is that the designation of critical habitat can serve to educate landowners and the public regarding the potential conservation value of an area. This may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation value for certain species. Any information about the moth species for which critical habitat was proposed in Unit 1 that reaches a wide audience, including other parties engaged in conservation activities, would be considered valuable.

However, we believe we have achieved the same educational benefits through ongoing conservation activities