

DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****50 CFR Part 17**

RIN 1018-A177

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for *Astragalus magdalenae* var. *peirsonii* (Peirson's milk-vetch)**AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for the federally threatened *Astragalus magdalenae* var. *peirsonii* (Peirson's milk-vetch) pursuant to the Endangered Species Act of 1973, as amended (Act). We designate a total of approximately 21,836 acres (ac) (8,848 hectares (ha)) of critical habitat in Imperial County, California.

DATES: This rule becomes effective on September 3, 2004.

ADDRESSES: All comments and materials received during the comment periods and supporting documentation used in preparation of the proposed and final rules will be available for public inspection, by appointment, during normal business hours at the Carlsbad Fish and Wildlife Office, U.S. Fish and Wildlife Service, 6010 Hidden Valley Road, Carlsbad, CA 92009. The final rule, economic analysis, and map will also be available via the Internet at <http://carlsbad.fws.gov>.

FOR FURTHER INFORMATION CONTACT: Field Supervisor, Carlsbad Fish and Wildlife Service (telephone 760/431-9440; facsimile 760/431-9618).

SUPPLEMENTARY INFORMATION: Please see the proposed rule for critical habitat for *Astragalus magdalenae* var. *peirsonii* for a discussion on critical habitat providing little additional protection to species, role of critical habitat in implementing the Act, and the procedural and resource difficulties in designating critical habitat (68 FR 46143).

Background

For a general discussion of the role of critical habitat in implementing the Act, background information on the biology of *Astragalus magdalenae* var. *peirsonii*, and a description of previous Federal actions, including our determination that designating critical habitat for this species is prudent, please see our August 5, 2003, proposed rule (68 FR 46143). On November 15, 2001, the Center for Biological Diversity and

California Native Plant Society filed a lawsuit in the U.S. District Court for the Southern District of California challenging our determination not to designate critical habitat for eight desert plants, including *Astragalus magdalenae* var. *peirsonii* (*Center for Biological Diversity et al. v. Norton*, No. 01 CV 2101). A second lawsuit also asserting the same challenge was filed on November 21, 2001, by the Building Industry Legal Defense Fund (*Building Industry Legal Defense Fund v. Norton*, No. 01 CV 2145). On July 1, 2002, the court ordered the Service to complete a review of the prudency determination and, if prudent, to finalize critical habitat for the plant on or before July 28, 2004. On April 6, 2004, we published a notice of availability of the draft economic analysis for the designation of critical habitat and reopened the comment period for the proposed rule and draft economic analysis. This second comment period closed on May 6, 2004.

Summary of Comments and Recommendations

We requested written comments from the public on the proposed designation of critical habitat for *Astragalus magdalenae* var. *peirsonii* in the proposed rule published on August 5, 2003 (68 FR 46143). We also contacted appropriate Federal, State, and local agencies; scientific organizations; and other interested parties and invited them to comment on the proposed rule. During the comment period that opened on August 5, 2003, and closed on October 6, 2003, we received 23 comment letters directly addressing the proposed critical habitat designation: 2 from peer reviewers, 1 from a Federal agency, and 20 from organizations or individuals. During the comment period that opened on April 6, 2004, and closed on May 6, 2004, we received 10 comment letters directly addressing the proposed critical habitat designation and the draft economic analysis. Of these latter comments, 1 was from a peer reviewer, 1 from a Federal agency, and 8 were from organizations. Eighteen commenters supported the designation of critical habitat for *A. magdalenae* var. *peirsonii* and six opposed the designation. Nine letters included comments or information, but did not express support or opposition to the proposed critical habitat designation. Comments received were grouped into three general issues specifically relating to the proposed critical habitat designation for *A. magdalenae* var. *peirsonii*, and are addressed in the following summary and incorporated into the final rule as appropriate. We

did not receive any requests for a public hearing.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we solicited expert opinions from eleven knowledgeable individuals with scientific expertise that included familiarity with the species, the geographic region in which the species occurs, and conservation biology principles. We received responses from three of the peer reviewers. The peer reviewers generally concurred with our methods and conclusions and provided additional information, clarifications, and suggestions to improve the final critical habitat rule. Peer reviewer comments are addressed in the following summary and incorporated into the final rule as appropriate.

Peer Review Comments

Comment 1: One commenter supported the model used to propose critical habitat for *Astragalus magdalenae* var. *peirsonii*, but pointed to the need for using metapopulation approaches, experimental approaches, and data from ecologically similar species. The commenter suggested future approaches for modeling, monitoring, and research.

Our Response: We agree that having the results of these modeling and research efforts would improve the process of delineating critical habitat, however, such data is not available. The suggested approaches also may have a benefit in developing a recovery plan or management and conservation plans for *Astragalus magdalenae* var. *peirsonii*.

Comment 2: The proposed rule cites the finding by Romspert and Burk (1979) that older plants were the primary seed producers and that plants that become reproductive in the first season do not make significant contributions to the seed bank. However, Phillips and Kennedy (2002) concluded that first-year plants can have a significant effect on the seed bank.

Our Response: First-year plants that flower and set seeds likely contribute to the seed bank. In a comparison between the mean number of fruits from older and younger plants, Phillips and Kennedy (2002) found that older plants had a mean of 171.5 fruits compared with an estimated 5 fruits for first-year plants. With an average of 14 seeds per fruit (Barneby 1964, TOA 2001), younger plants could produce 70 seeds while older plants could produce almost 2400 seeds per plant. Consequently, both older and younger plants that

flower and set seeds are needed to maintain the population.

Comment 3: One commenter indicated a seed bank analysis should have been completed for areas included in critical habitat on the basis of the probability of seeds being present in areas contiguous to, and having habitat continuity with, areas where *Astragalus magdalenae* var. *peirsonii* plants have been known to occur.

Our Response: We considered the work by Phillips and Kennedy (2002, 2003) on the seed bank for *A. magdalenae* var. *peirsonii* in assessing areas to include as critical habitat. Their work suggests that the seed bank is present in areas contiguous to and having habitat continuity where *A. magdalenae* var. *peirsonii* is known to occur. Their work further supported the inclusion of gaps between transects and cells in the essential habitat model where no standing plants of *A. magdalenae* var. *peirsonii* were observed.

Comment 4: The critical habitat map should be revised to include only substantial occurrences of the plant, not isolated occurrences, and connections between these areas. The proposed boundaries appear to include the entire dune system and much unoccupied, unfavorable habitat, particularly in Subunit C and Subunit D.

Our Response: Please see our responses to Public Comments Issues 1 and 2.

Public Comments

Issue 1: Biological Justification and Methodology

Comment 1: One commenter indicated we apparently identified all areas that may be occupied by *Astragalus magdalenae* var. *peirsonii* and included them in the proposed critical habitat designation without identifying why they are essential to the conservation of the species.

Our Response: We did not identify and propose critical habitat for all areas that may be occupied by *Astragalus magdalenae* var. *peirsonii*. For example, portions of the areas between Subunits A and B (south of Highway 78), between Subunits B and Subunits C and D (north and south of Interstate 8), and between Subunits C and D likely support low densities of standing plants, root crowns, or seed bank where the habitat is suitable. The gaps between Subunits A, B, C, and D were not proposed as critical habitat because these areas were not considered essential to the conservation of *A. magdalenae* var. *peirsonii*. We also state in the proposed rule that "Outlier occurrences

evidenced only by WESTEC 1977 were not included because of the age of the report and the lack of substantiation by more recent BLM surveys." (68 FR 46149). For the areas that were proposed as critical habitat, we provide a discussion of the essential habitat model and the use of the model to determine and justify those areas essential to the conservation of *A. magdalenae* var. *peirsonii*. See also our response to Comment 4.

Comment 2: One commenter suggested that areas where plants have not been mapped should be excluded.

Our Response: In the proposed rule, we state that "Surveys conducted by BLM indicate variability in occurrences of standing plants from year to year" and "if standing plants were not found in a particular grid cell during a survey, but were recorded as present" in that same grid cell in other survey years, we concluded that the grid cell was occupied (68 FR 46150). Not unexpectedly, gaps occur between transects because they were randomly selected across the length of the Algodones Dunes. We analyzed the gaps between transects to determine whether to include the intervening areas in the development of the essential habitat model. We state in the proposed rule that "grid squares where this plant has not been encountered are included as critical habitat if they are contiguous with grid squares where the plant has been found and possess the primary constituent elements" (68 FR 46151). Moreover, surveys conducted by Thomas Olson and Associates (TOA) (2001) filled in gaps between BLM's surveyed transects and grid cells. Thus, we proposed and designated critical habitat where plants were not mapped.

Comment 3: Various commenters indicated we should have included all of the Algodones Dunes.

Our Response: *Astragalus magdalenae* var. *peirsonii* has a limited distribution within the Algodones Dunes. Certain areas within the Algodones Dunes, such as areas characterized by desert pavement or by creosote bush scrub, do not support *A. magdalenae* var. *peirsonii*. The gaps between Subunits A, B, C, and D were not proposed as critical habitat because these areas were not considered essential to the conservation of *A. magdalenae* var. *peirsonii* (see response to Comment 1). Developed areas, Off-Highway Vehicle (OHV) staging areas, and disturbed areas along roadways were not proposed as critical habitat because these limited areas no longer support an intact active sand dune system with natural expanses of slopes and swales (see response to Comment

6). Consequently, the entire Algodones Dunes was not proposed or designated as critical habitat.

Comment 4: Commenters indicated the proposed critical habitat does not adequately provide for habitat connectivity and recovery by not including large, well-connected reserves. They stated that we should have followed conservation biology principles of reserve design to provide corridors for connectivity among the critical habitat subunits, or included all of the current and historical range of *A. magdalenae* var. *peirsonii* in critical habitat.

Our Response: Consistent with the principles of conservation biology, Subunits A and B are relatively large contiguous blocks of habitat that encompass the most important areas identified by our essential habitat model. Moreover, we stated in the proposed rule that "Based on observations of unimpeded sand and wind movement across existing paved roads, we did not expect that the paved roads would represent a barrier to the dispersal of the fruits and seeds of *Astragalus magdalenae* var. *peirsonii*," (68 FR 46150) and the "discontinuities associated with the highways are likely traversed occasionally by mature fruits dispersed by the wind as well as by pollinators." (68 FR 46152). Therefore, we do not believe that we need to provide, in the critical habitat designation, corridors for connectivity among the critical habitat Subunits A and B or that our designation of critical habitat does not follow the principles of conservation biology.

Comment 5: The proposed rule did not adequately explain why areas were excluded, including unoccupied habitat, developed areas, OHV staging areas, disturbed areas along roadways, areas between the southern areas (Subunit C and Subunit D), and areas connecting the southern and northern subunits.

Our Response: We did not propose critical habitat in areas that did not meet the definition of critical habitat under section 3(5)(A) of the Act. Developed areas, OHV staging areas, and disturbed areas along roadways were not proposed as critical habitat because these limited areas no longer support an intact active sand dune system with natural expanses of slopes and swales. For example, we state in the proposed rule that "Significant impacts from OHV use on *A. magdalenae* var. *peirsonii* have been observed at and near OHV staging areas" (68 FR 46145) and we believe these OHV staging areas no longer provide the primary constituent elements for this species. The areas between Subunits C and D and areas

connecting the northern subunit (Subunit A) and southern subunits (Subunits B, C, and D) were not proposed as critical habitat because these areas were not considered essential to the conservation of *A. magdalenae* var. *peirsonii*. See our response to Comment 4 for our explanation that these areas were not essential to the conservation of *A. magdalenae* var. *peirsonii*.

Comment 6: One commenter expressed the opinion that, although OHVs may destroy individual plants, the “churning” by OHVs aids the propagation of seeds.

Our Response: The commenter did not provide any additional information or data to support their opinion that “churning” by OHVs aids in the propagation of seeds. We were unable to incorporate this suggestion in the final rule.

Comment 7: No genetic information or population size estimates are included in the proposed rule. There is no “correct” demographic model that incorporates the spatial and temporal complexity exhibited by *Astragalus magdalenae* var. *peirsonii*.

Our Response: Critical habitat designations are based on the best available information. Genetic information, population size estimates, and demographic models are not currently available. If this type of information became available, it would be helpful in the development of a recovery plan and management and conservation plans for this species.

Comment 8: One commenter stated *Astragalus magdalenae* var. *peirsonii* is not in danger of going extinct and grows in several other areas. The commenter provided a Web site printout suggesting this species may occur in or near Joshua Tree National Park.

Our Response: *Astragalus magdalenae* var. *peirsonii* is listed as a “threatened” species. The term “threatened species” means any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. In contrast, the term “endangered species” means any species which is in danger of extinction throughout all or a significant portion of its range. A search of official Web sites for Joshua Tree National Park and the National Park Service provides no known locations of this plant on any National Park Service lands. Two plant lists for Joshua Tree National Monument (now Park) also did not reference this plant. The Algodones Dunes is the only location where we have confirmed the current existence of *A. magdalenae* var. *peirsonii* in the United States.

Comment 9: The acreages for each of the critical habitat subunits were not provided in the proposed rule.

Our Response: We have included the acreages for each subunit in the final critical habitat designation.

Issue 2: Legal and Procedural

Comment 10: The North Algodones Dune Wilderness is a 32,000-acre preserve for *Astragalus magdalenae* var. *peirsonii*, which should be considered in all decisions about critical habitat and listing for species found in the wilderness area. Subunit A should be removed from critical habitat because it is included in the wilderness area and already protected from most human contact. Subunit B, which includes the middle dune areas that have intense management efforts, other areas of habitat considered marginal for *A. magdalenae* var. *peirsonii*, and areas having only small stands of the species also should be removed from critical habitat designation.

Our Response: The North Algodones Dune Wilderness was designated a wilderness area to protect a number of rare and endemic plant and animal species, including *Astragalus magdalenae* var. *peirsonii*. The existence of *A. magdalenae* var. *peirsonii* in this designated wilderness area was considered when listing this species as threatened rather than endangered, as was originally proposed (57 FR 19844). Management of the North Algodones Dune Wilderness takes the form of “minimal and subtle on-site controls and restrictions” BLM (2003). The wilderness area is essential for the survival of *Astragalus magdalenae* var. *peirsonii*, however, the area is not specifically managed for this plant. The North Algodones Dune Wilderness was not excluded from the critical habitat designation because the habitat within the Wilderness meets the definition of critical habitat and is not otherwise appropriate for exclusion under 4(b)(2). See Comments 1 and 5 for the basis for other areas being included or excluded in the critical habitat designation.

Comment 11: The BLM’s Recreation Area Management Plan (RAMP) does not address the species-specific management needs and measures for *Astragalus magdalenae* var. *peirsonii*.

Our Response: As noted in the proposed rule, the RAMP does not include active management for *Astragalus magdalenae* var. *peirsonii*. Consequently, BLM lands covered by the RAMP are included in the critical habitat designation. The RAMP includes an intensive monitoring program for *A. magdalenae* var. *peirsonii* that is being implemented by BLM. Based on this

monitoring program, management needs for this species will be better understood. The RAMP outlines the management of the Imperial San Dunes Recreation Area to maximize recreational opportunities. Monitoring of Peirson’s milk-vetch is a component of this RAMP.

Comment 12: The Bureau of Reclamation stated that a 1-mile-long, 1,000-foot-wide area along All-American Canal in Critical Habitat Subunit D should be exempted from the critical habitat designation. The Bureau of Reclamation received a Biological and Conference Opinion of the All-American Canal Lining Project, dated February 9, 1996.

Our Response: Subunit D was not carried forward to the final designation of critical habitat because of the relatively small size and separation from the other critical habitat subunits. We considered the most important areas for *Astragalus magdalenae* var. *peirsonii* to extend along the central westerly spine of the Algodones Dunes. The previously proposed Subunit D was located along the easterly edge of the main sand dune formations at the southern end of the Algodones Dunes. In general, low numbers of *Astragalus magdalenae* var. *peirsonii* were found in the vicinity of the former Subunit D. The previously proposed Subunit D was also divided by the All-American Canal (Canal), with the majority of the subunit occurring northeast of the Canal. The Canal likely acts as a barrier to the dispersal of wind-blown seed and seed capsules, thereby isolating the northeast section of the former Subunit D from the rest of the Algodones Dunes. Thus, we determined that subunit D is not essential to the conservation of *Astragalus magdalenae* var. *peirsonii*. While this area is not designated as critical habitat, Federal agencies still have the requirement to consult with the Service under section 7 of the Act for their actions that may affect *Astragalus magdalenae* var. *peirsonii*.

Comment 13: Since all existing data show no historic or recent decline in the species, what constitutes recovery of the species?

Our Response: The data collected by BLM demonstrates a high degree of annual variability in the number of *Astragalus magdalenae* var. *peirsonii* plants observed during their surveys. The high variability is influenced by several factors, including rainfall patterns within the Algodones Dunes. For example, BLM counted 5,064 plants in 1998 (higher than average rainfall) and 942 plants in 1999 and 86 plants in 2000 (both years with lower than average rainfall) along these transects.

Astragalus magdalenae var. *peirsonii* has apparently been extirpated from Borrego Valley in eastern San Diego County, not having been seen there since 1959 and not located in 1978 surveys (Spolsky 1978). The periodically low numbers and restricted range of *A. magdalenae* var. *peirsonii* make it vulnerable to threats discussed in the final rule listing this plant. BLM has initiated a large-scale monitoring program for *A. magdalenae* var. *peirsonii* that will provide valuable information on population trends for this species (BLM 2003).

Recovery is defined in our regulations (50 CFR 402.02) as “improvement in the status of listed species to the point at which listing is no longer appropriate under the criteria set out in section 4(a)(1) of the Act.” The reasons for listing *A. magdalenae* var. *peirsonii* are detailed in the proposed (57 FR 19844) and final (63 FR 53596) rules to list the species as threatened. To achieve recovery, the threats must be eliminated, reduced, or managed to the extent that the status of *A. magdalenae* var. *peirsonii* no longer meets the definition of threatened (*i.e.*, in danger of becoming endangered in the foreseeable future throughout all or a significant portion of its range). Objective and measurable criteria included in a recovery plan are used to determine when a species has recovered and can be delisted. A draft recovery plan for *A. magdalenae* var. *peirsonii* is currently in preparation.

Comment 14: Two commenters expressed concern that the detailed legal descriptions used to define the areas proposed for inclusion in critical habitat do not allow easy comprehension of the critical habitat boundaries.

Our Response: Our regulations (50 CFR 17.94(b) and 50 CFR 424.12(c)) set forth the requirements for describing areas included in a critical habitat designation. Although maps are included, such maps are provided for reference purposes only to guide Federal agencies and other interested parties in locating the general critical habitat boundaries. Critical habitat subunits must be described by specific limits using reference points found on standard topographic maps of the area. We are required to provide legal definitions of the boundaries. The boundaries for critical habitat are provided as Universal Transverse Mercator (UTM) North American Datum coordinates that describe the critical habitat boundaries.

Comment 15: Determination of critical habitat should be postponed until completion of the status review

announced in the 90-day finding (68 FR 52784) on a petition to delist *Astragalus magdalenae* var. *peirsonii*.

Our Response: Notice of the 12-month finding on a petition to delist *Astragalus magdalenae* var. *peirsonii* was published on June 4, 2004 (69 FR 31523). After reviewing the best scientific and commercial information available, we found that the petitioned action was not warranted. *Astragalus magdalenae* var. *peirsonii* is retained as a threatened species under the Act.

Comment 16: One commenter expressed the opinion that the proposed critical habitat represents a closure of the area to OHVs and constitutes a “taking.” Several commenters also seemed to believe that the designation would result in these areas being closed to OHVs and other human activity.

Our Response: Proposed or final designation of critical habitat does not of itself require that an area, including any of the BLM management areas within the Algodones Dunes, be closed to any particular activity. In the case of Federal lands, which constitute the overwhelming majority of the proposed and designated critical habitat, or federally funded or permitted activities, the designation requires the Federal agency in question to consult with the Service under section 7 of the ESA as to whether any activity which might adversely modify the critical habitat would in fact do so.

A section 7 consultation on the impact of BLM management of the Dunes, including the RAMP, on the *Astragalus magdalenae* var. *peirsonii*, and a conference on the proposed critical habitat, has been underway for some time. However, as of the date of this designation of critical habitat, it has not been concluded. We therefore do not know whether any closures might result from the consultation and conference, or whether there might be subsequent litigation, which might lead to closures of some or all of the area. All we can say at this time is that the designation of critical habitat does not of itself require closures to OHV or other human uses.

On the other hand, the designation does not affect land ownership or establish a refuge, wilderness, reserve, preserve or other type of conservation area. It does not affect activities on private land unless the landowner requires a Federal permit, funding or other assistance to conduct the activity. We prepared a Takings Implications Assessment for the proposed and final designations of critical habitat for *Astragalus magdalenae* var. *peirsonii* as required by Executive Order 12630 (“Government Actions and Interference

with Constitutionally Protected Private Property Rights”). These assessments concluded that the designation of critical habitat did not pose significant takings implications.

Comment 17: One comment letter recommended we provide more maps showing clearer details of proposed critical habitat, the historic range of *Astragalus magdalenae* var. *peirsonii*, and a detailed political map of the area.

Our Response: The maps we publish are limited by the printing capabilities of the **Federal Register** and the Code of Federal Regulations. We can provide more accurate maps on request, as well as answer questions regarding particular areas. Please contact the Carlsbad Fish and Wildlife Office (*see ADDRESSES* section above) for assistance.

Comment 18: One commenter expressed neither support nor opposition to the proposed designation of critical habitat, but requested a “plan” and map for the proposed critical habitat.

Our Response: We do not develop management plans or recovery plans for designated critical habitat. The proposed and final rules include maps and legal descriptions of the critical habitat. See the response to Comment 17 regarding availability of more detailed maps.

Comment 19: One commenter recommended that we give full consideration to the threats from OHVs in the final rule.

Our Response: Critical habitat designation identifies areas essential to the conservation of the species that may require special management considerations (*see* Comment 1). Critical habitat does not directly address threats to the species. Instead, Federal agencies must consult with the Service on their actions that may affect critical habitat and ensure that their actions do not destroy or adversely modify critical habitat.

Issue 3: Economic Issues

Comment 20: One commenter stated the “economic analysis” in the notice of proposed rulemaking was incomplete and inadequate. Other commenters indicated the economic analysis must be included in the proposed rule, and the proposed rule should be revised to include an economic analysis and published again for review. Commenters were concerned that the public would not be able to comment on the economic analysis.

Our Response: The proposed rule did not contain an economic analysis. As is our usual practice because of the urgency of court orders the proposal indicated that we would announce the

availability of the draft economic analysis at a later date and would at that time seek public review and comment on the draft economic analysis. We published a notice of availability for the economic analysis in the **Federal Register** on April 6, 2004. That notice also reopened the comment period on the proposed rule and the draft economic. The comment period closed on May 6, 2004.

Comment 21: Commenters suggested that the benefits, such as non-consumptive uses, resulting from the designation of critical habitat to protect *Astragalus magdalenae* var. *peirsonii* should be taken into account.

Our Response: We are unable to quantify the benefits of non-consumptive uses resulting from critical habitat. While the ISDRA offers opportunities for non-OHV recreation, such as hiking and horseback riding, historical use patterns indicate that the number of individuals participating in these activities is far less than those involved in OHV-based recreation. As such, the analysis focuses on economic impacts to OHV enthusiasts and OHV-related businesses. The published economics literature has documented that real social welfare benefits can result from the conservation and recovery of endangered and threatened species. Regional economies and communities can benefit from the preservation of healthy populations of endangered and threatened species, and the habitat on which these species depend.

In Executive Order 12866, the Office of Management and Budget (OMB) directs Federal agencies to provide an assessment of costs and benefits of proposed regulatory actions. However, in its guidance for implementing Executive Order 12866, OMB acknowledges that often it may not be feasible to monetize, or even quantify, the benefits of environmental regulations. Where benefits cannot be quantified, OMB directs agencies to describe the benefits of a proposed regulation qualitatively. Given the limitations associated with estimating the benefits of critical habitat for *Astragalus magdalenae* var. *peirsonii*, the Service believes that the benefits of critical habitat are best expressed in biological terms that can be weighed against the expected cost impacts of the rulemaking. Thus, we have qualitatively described the benefits in the final rule and we have not used the benefits of non-consumptive uses in our economic analysis.

Comment 21: One commenter objected to a statement that the

proposed rule would not impose a cost on the OHV industry.

Our Response: The economic analysis considered a No Closure Scenario (BLM Management Areas are not closed to OHV recreation as a result of critical habitat) and a Closure Scenario (BLM Management Areas are closed to OHV recreation as a result of critical habitat) to estimate the economic costs of designating critical habitat. Under the No Closure Scenario, the annual efficiency impacts associated with future *Astragalus magdalenae* var. *peirsonii* protection associated with administrative and project modification costs only (such as a Federal agency compliance with section 7 of the Act) would be approximately \$0.6 million. Under the No Closure Scenario, losses to OHV users would be zero.

Under the Closure Scenario, the efficiency effects would be associated with administrative costs, project modification costs, and consumer surplus losses to OHV users. That is, efficiency effects would be the sum of the administrative and project modification costs (\$0.57 million) and the consumer surplus contribution associated with the affected regions. If all of the areas designated as critical habitat within the Imperial Sand Dunes Recreation Area (ISDRA) were closed to OHV use, the efficiency effects would range from \$9.5 million per year to \$10.5 million per year (\$0.57 million per year in administrative and project modification costs plus consumer surplus impacts ranging from \$8.9 million per year to \$9.9 million per year) (2003 dollars). If all of the areas designated as critical habitat within the ISDRA were closed to OHV use, the regional economy would see an upper bound reduction in output of \$55 million to \$124 million in year 2013 (2003 dollars), and a potential loss in employment of 1,207 to 2,585 jobs. If no closures were to take place, the lower bound regional economic impact would be zero.

For the regulatory flexibility analysis, we identified the OHV industry as being the only small entities that could be affected by the designation of critical habitat. The designation of critical habitat only affects Federal agencies that must consult on impacts to critical habitat under section 7 of the Act. An analysis of past section 7 consultations revealed that business activities of the OHV industry have not directly triggered section 7 consultations in the past and are unlikely to trigger future section 7 consultations. Therefore, we concluded that critical habitat would not create new costs for small entities to comply with the designation.

Comment 22: One commenter believes that the range of forecast economic impacts is too wide (i.e., scenarios in the DEA range from no closure to blanket closures of certain areas).

Our Response: Given the uncertainty in the nature and scope of future limitations of OHV use in the Imperial Sand Dunes Recreation Area (ISDRA) associated with PMV conservation measures, the analysis provides impact measures under a range of scenarios, from no closures to complete closure. As proposed in the 2003 Biological Opinion issued by the Service on management of the ISDRA, BLM has initiated an extensive monitoring program for the PMV. BLM proposes to reinstate consultation with the Service in four years based on information obtained from monitoring or studies. BLM also proposes to reinstate sooner than four years if the PMV population in any Management Area falls to 50 percent of the baseline level in a subsequent year with comparable rainfall at or above the long-term mean (Service, 2003). This future consultation has the potential to result in additional management actions to protect the PMV, although currently no actions are anticipated that would reduce OHV opportunities or adversely impact the regional economy. Given uncertainties related to future management decisions and biological factors, narrowing the range of potential scenarios is not possible at this time. As a result, the analysis can be used to determine the social welfare and regional economic impacts that might occur under a range of potential future management actions related specifically to closure scenarios. Both technical reviewers of the draft report concluded that this approach is appropriate given the uncertainty associated with future policy decisions.

Comment 23: Several commenters note that the analysis underestimates expenditures made by ISDRA visitors. Commenters provide estimates of expenditures per trip ranging from \$1,000 to \$2,000.

Our Response: The analysis recognizes that OHV users incur large trip-related expenses when visiting the ISDRA. However, the high-end estimates reported by several commenters may not represent the average of expenditures across all groups who visit the dunes, and overstates the expenditures made by the average visitor within the two counties included in the analysis.

The \$265 to \$515 per trip expenditure range used in the analysis is derived from an American Sand Association newsletter (dating May 2003), and is

intended to represent an average across the hundreds of thousands of trips taken to the ISDRA each year. Clearly some visitors spend more; however, the range used is intended to represent an average. More important, the expenditure range applied in the DEA is used to represent expenditures by visitors solely within Imperial and Yuma Counties. BLM and OHV stakeholder groups indicate that many ISDRA visitors purchase goods and services outside of Imperial and Yuma Counties (e.g. gas, groceries, supplies, and equipment are purchased within counties of origin featured in Exhibit 3-1 of the report).

The report's trip expenditure assumptions are similar to estimates used in an economic study conducted by BLM in its Final Environmental Impact Statement for the Imperial Sand Dunes Recreation Area Management Plan (May 2003). The BLM study's estimate of \$260 in expenditures per household OHV trip is taken from a California Department of Parks and Recreation Off-Highway Vehicle study. This estimate is assumed to represent the portion of expenditures spent within the local economy, consisting of Imperial and Yuma Counties. The high-end expenditure-per-trip estimates provided by commenters likely do not represent purchases made entirely within the counties modeled in the analysis.

Technical reviewers of the DEA note that visitor expenditure estimates are critical to estimating the regional economic impacts and support the assumptions employed within the DEA. Moreover, expenditures generated by applying the \$250-\$515 range to estimated number of ISDRA trips per year are reasonable when viewed in the context of the local economy. While overall estimates of expenditures per trip remain unchanged from the DEA, the final report has been revised to include discussion of the high-end trip expenditures incurred by ISDRA OHV users (Section 4.1.5).

Comment 24: Several commenters note that analysis does not address impacts to OHV and OHV-related equipment manufacturers within Imperial and Yuma Counties.

Our Response: BLM and OHV user groups have indicated that most ISDRA visitors purchase OHVs and other recreational vehicles in areas outside of Imperial and Yuma Counties (i.e. in counties of origin depicted in Exhibit 3-1). The analysis recognizes, however, that OHV businesses within Imperial and Yuma Counties benefit directly from OHV recreation at the ISDRA. Section 3.2.2 states, "Several businesses

that operate within Imperial and Yuma Counties are dependent on the recreational activities that occur within the ISDRA * * * major towns in the counties have a number of small businesses that sell OHVs and OHV accessories and services and market to both local and tourist populations. In addition, a number of small businesses exist within the geographical boundaries of the ISDRA itself, catering exclusively to dune visitors. Any reduction in visitation is likely to adversely impact these local businesses".

Potential impacts to local businesses selling OHV equipment, supplies and services in Imperial and Yuma counties are examined in the analysis of regional economic impacts (Exhibit 4-13). In 2003, direct expenditures incurred by ISDRA recreators on OHV equipment, supplies, and services are estimated to be \$69.2 million (on average \$194.60 per trip multiplied by an estimated 355,704 trips). Information on the number of ISDRA visitors who live in and purchase OHVs and OHV-related vehicles within Imperial and Yuma Counties is not available. Therefore, data do not exist to accurately estimate potential reductions in OHV purchases made within Imperial and Yuma Counties given possible changes in ISDRA management. The report, however, does recognize the potential for impacts to these regional OHV retailers.

While overall cost estimates remain unchanged from the DEA, the report has been revised to incorporate additional information on OHV. Specifically, local governments and OHV groups have provided information on OHV retailers within Imperial and Yuma Counties.

Comment 25: Several commenters stated that the report underestimates or excludes expenditures incurred through purchasing OHVs and OHV-related equipment, including trailers, haulers, specialized dune transportation equipment.

Our Response: The above response describes why potential economic impacts to regional OHV retailers were not quantified in the analysis. While overall cost estimates within the report remain unchanged, Section 3.2.1 of the report has been revised to describe additional information on investment in OHV equipment.

Comment 26: One commenter questioned whether the regional economic analysis incorporates impacts to permitted vendors within the ISDRA.

Our Response: The analysis addresses potential impacts of decreased expenditures in industries related to OHV recreation by utilizing IMPLAN, a

software package that translates initial changes in expenditures into changes in demand for inputs to affected sectors. The sectors examined include fuel, food, camping supplies, medical goods and services sales and equipment repairs within Imperial and Yuma Counties. To the extent that permitted vendors are included as part of these sectors and are taxed by local governments, impacts to them are captured in the regional economic impact analyses of these industries.

Comment 27: One commenter notes that current closures in the Algodones Dunes are creating an adverse economic impact that is not being defined within this draft report.

Our Response: The analysis addresses impacts from past and current closures. Section 4.1.6, "Summary of Past Impacts", provides estimates of consumer losses and regional economic impacts stemming from the 2001 temporary closures.

Comment 28: Several commenters note that the report underestimates lost revenues within Imperial and Yuma Counties. One commenter notes that a former BLM economic study underestimated economic contributions associated with ISDRA visitation. Another commenter states that the text-box in the Executive Summary underestimates the economic contribution of the ISDRA to Imperial County.

Our Response: The analysis calculates a range of economic contributions associated with ISDRA visitation assuming high and low visitation projections and high and low expenditures per trip. The report first calculates the economic contribution of the entire ISDRA and then attempts to distinguish contributions associated with visitation in areas proposed as critical habitat. Exhibit ES-6, Figure 4-2 and Exhibit 4-14 summarize contributions of OHV-related expenditures and contributions by each management area and proposed critical habitat. The value generated by Glamis alone within Yuma County is as high as \$17.36 million per year. Placed in the context of both counties' annual taxable sales, regional economic contributions of the ISDRA comprise a sizable portion of the two counties' economies.

The text-box within the Executive Summary examines the current economic value generated by OHV use within the Glamis Management Area relative to the county's revenues. Total expenditures generated from OHV use within the entire ISDRA in 2003 can be calculated by multiplying current visitation by assumed expenditures per trip. Exhibit 4-14 also provides total

expenditures generated by the entire ISDRA by management area assuming 2013 visitation. The text-box has been clarified to highlight the focus on the Glamis Management Area.

Comment 29: Several commenters note that the estimated impacts should be placed in the context of OHV-related business sales and not the entire region's economy. One commenter requests that the analysis include a definition of "significant" when comparing reported economic impacts on local economies. Another commenter notes that sales taxes lost to the region would equate to a 5 percent loss in workforce and small businesses that rely on OHV recreation would cease to exist. Finally, one commenter notes that the analysis does not adequately address how the estimated job losses (of up to 2,585 jobs) will impact a region that already experiences high unemployment.

Our Response: Response to comments above addresses potential impacts to small businesses in the two-county area. The analysis has been revised to include estimated losses as a percent of OHV-related businesses and sales, specifically sales within the retail trade, accommodation, and food services sectors within the two counties (Exhibits ES-5 and 4-17). In addition, Section 4.2.6 within the report has been revised to further discuss how potential losses in revenues, employment, and taxes may impact the local economies. Note that Section 3.1.4 within the report describes the high unemployment rates prevalent in both counties and major cities within the region.

Comment 30: Several commenters note that the economic analysis does not address potential impacts to OHV trailer manufacturing and OHV accessory businesses that exist outside of Imperial and Yuma Counties. One commenter notes that OHV recreation provides approximately \$9 billion to California's economy and that since the ISDRA is the most heavily used OHV area in the state, potential closures would be far greater than those estimated in the economic analysis.

Our Response: The report recognizes that OHV businesses operating outside of the primary study area (Imperial and Yuma Counties) have the potential to be impacted by any limitations on OHV activity within the ISDRA, provided that limitations discourage users from purchasing OHVs and related equipment (Section 3, paragraph 89). These potential impacts are difficult to analyze as no data exist to model where OHV enthusiasts from the greater California and Arizona region purchase vehicles and other equipment, and how

these purchases will change in response to closures within the ISDRA.

First, as stated in paragraph 89, "OHV-related businesses located outside of Yuma and Imperial Counties may experience a lesser impact than those within these counties, since OHV enthusiasts may decide to visit other OHV areas in California, Arizona, and neighboring states." Technical reviewers of the report agree that if an area is closed, the visitor may not give up OHV recreational experiences but instead may seek other places to visit. By not taking into account this behavioral phenomenon, generated impact estimates could be greatly overestimated.

Second, while OHV and related equipment manufacturers may experience impacts within the greater California and Arizona area, these impacts are anticipated to be small relative to the overall size of these counties' economies. As stated in paragraph 89, "This analysis does not quantify the expenditures OHV users make on vehicles or related equipment because these purchases are likely made over a broader geographic area." Potential changes in OHV-related expenditures are not expected to have a significant impact outside of Imperial and Yuma Counties, because the majority of these counties are large, with diverse economies (e.g. Los Angeles).

Finally, losses to businesses within the two-county area from decreased ISDRA visitation are unlikely to be replaced by expenditures on other goods and services of the same order of magnitude. However, impacts to OHV-related businesses in other areas (e.g. origin counties) will likely be offset by expenditures on other goods and services in those regions, even if OHV use declines.

The most recent OHV survey conducted by the California Off-Highway Motor Vehicle Recreation Division in 2002 estimates the annual economic impact of OHV recreation in California at \$3.049 billion (CA Off-Highway Motor Vehicle Recreation Division, 2001). The extent that use limitations within the ISDRA discourage OHV users from the greater economic study area from purchasing OHVs and OHV-related equipment, OHV businesses within the broader geographic area are likely to be impacted.

Comment 31: One commenter notes that decreases in revenues within Imperial and Yuma Counties as a result of OHV-use restrictions may increase revenues in other counties that provide sand dune opportunities that do not host rare species.

Our Response: The analysis acknowledges within Section 3 that, "* * * OHV-related businesses located outside of Yuma and Imperial may experience a lesser impact than those within these counties, since OHV enthusiasts may decide to visit other OHV areas in California, Arizona, and neighboring states". Exhibit 3-8 within the report provides examples of substitute sites available to OHV users and notes this occurrence as a key assumption in Exhibit ES-7. However, with over 83,000 acres currently open to OHV use and 132,870 acres available once the temporary closures are lifted, the ISDRA remains one of the largest dune systems available for motorized-recreation in the region. Three sites, Ocotillo Wells, Superstition Mountain, and Dumont Dunes, closest to the ISDRA provide for recreation.

While decreased expenditures within Imperial and Yuma Counties may be offset by increased expenditures, though difficult to quantify, in other OHV areas, understanding potential impacts to this region is critical to understanding the potential impacts of any changes in OHV use at the ISDRA. Several businesses that operate within the region rely heavily on income generated by OHV-based recreation. Reduced visitation resulting in revenue, employment and tax losses may pose considerable burdens to local communities.

Comment 32: One commenter noted that visitation is not evenly distributed throughout the ISDRA: the inner areas of the dunes are the most popular, and the inner areas are what draw visitors to the dunes. Another commenter notes that the analysis inflates impacts by assuming visitation is evenly distributed within each management area when "highest use areas were already excluded". Another commenter notes that assuming visitation is evenly distributed within each management area is unrealistic because of "the known distributional patterns of motorized recreation over the OHV accessible areas of the dunes".

Our Response: The analysis recognizes that high-use, developed, staging, and camping areas that are unlikely to contribute to the conservation of the species have been excluded from the proposed designation. The analysis also agrees that the inner portions of the dunes may be more attractive to some users (Sections 2.3.1; Section 4, paragraph 121; and Section 4.1.1). However, while the inner portions of the dunes may draw many users to the dunes, these areas are more remote and are therefore likely to experience less intensive

visitation (*i.e.*, such visitation may require specialized equipment).

It is not possible, using existing data, to predict the percentage of OHV users who visit areas of the ISDRA that are proposed for critical habitat. Lacking detailed data and user patterns and to offset conflicting attitudes towards visitation distribution, the report models visitation based on BLM visitor counts and assumes an equitable distribution of visitation within each management area. To the extent that areas proposed for designation are less or more popular with OHV users, this analysis could overstate or understate impacts by over- or underestimating the number of trips that could be affected by the designation.

Comment 33: One commenter suggests that any potential limitations on OHV use may displace visitation to other parts of the season (users might spread usage over other times, resulting in similar usage and economic expenditures). Another commenter notes that the analysis cannot assume lasting impacts of any future closures on visitation levels within the ISDRA.

Our Response: The analysis recognizes that OHV limitations in the past may have resulted in a redistribution of visitation over the recreation season. Section 4.1.1 states that that in the years subsequent to the temporary 2001 closures, BLM “documented an increase in visitation during traditionally off-peak weekends, likely a result of OHV recreationists seeking a less-crowded ISDRA experience * * * whether visitation to the ISDRA declined as a result of the closures is debated.”

Data are not available to model intertemporal substitution by ISDRA visitors given closure of one or more of the management areas. To determine the economic impact of past limitations on OHV recreation, the analysis assumes that OHV-users who would otherwise recreate at the closed ISDRA management areas would limit or refrain from visits to the dunes. Thus, the analysis can be used to understand the upper-bound social welfare and regional economic impacts under a variety of closure scenarios.

Comment 33: Several commenters note that ISDRA visitation actually increased rather than declined subsequent to the 2001 closures and that it is erroneous to conclude that visitation declined by 15 percent due to the closures particularly since visitation fluctuates based on weather and other factors.

Our Response: The report acknowledges in Section 4.1.4 that the reported change in ISDRA visitation

between 2001 and 2002 is not likely due to actual increased visitation but rather to refined counting methodologies employed by BLM. The analysis states that “prior to 2002, BLM extrapolated visitation by employing on-the-ground and fly-over estimates of vehicles during peak weekends. In 2002, BLM installed underground vehicle counters at each major ISDRA entrance point. Accordingly, accurate visitation data by management area prior to the 2002 recreation season is not available.”

The report also recognizes in Section 4.1.4, that fluctuations in annual visitation reflect a variety of factors, including economic and weather conditions. While BLM did not observe a drop in visitation subsequent to the closures, users within the OHV community expressed that visitation levels were likely impacted. The 15 percent reduction was therefore assumed to represent visitation in the areas slated for temporary closure. To understand the maximum social welfare and regional economic impacts of a closure, the DEA assumed that under closures OHV users who preferred to recreate in the closed areas would choose to not visit the dunes or make fewer trips per year. In Exhibit 4–8, this assumption of a 15 percent reduction is listed as a key assumption employed in the analysis of past economic impacts.

Comment 35: One commenter notes that the DEA does not consider economic costs associated with managing OHV activities at the ISDRA, including law enforcement required during high-use weekends. Another commenter notes that the analysis overlooks costs inflicted upon public safety by OHV use. Finally, a commenter remarks that it is incorrect to assume that closures are associated with cost savings to public agencies. (CNPS, BN, BLM)

Our Response: The analysis addresses costs associated with the public provision of on-site services at the ISDRA within Section 3.2.3. As stated:

Accommodating the millions of visitors that visit the ISDRA each year requires the provision of additional services and on-site infrastructure by both BLM and local government agencies * * * (m)oreover, the high visitation that occurs at the ISDRA during holiday weekends between March and October necessitates the provision of additional enforcement and emergency services. During high-use holiday weekends, BLM employs as many as 100 officers from state, local, and federal agencies to patrol the dunes. In the ISDRA Business Plan, BLM anticipates incurring annual costs of up to \$3.12 million related to law enforcement (\$500,000), emergency (\$280,000), and additional holiday staffing (\$2.34 million) * * * The Imperial County Sheriff’s Office

has also led a coalition of law enforcement agencies over the past three years to enforce legal behavior and provide for public safety at the dunes. In December 2003, the Sheriff’s Office was granted approximately \$750,000 for OHV law enforcement and emergency services at the ISDRA by the California Off-Highway Motor Vehicle Recreation Commission. Any reduction in future visitation at the ISDRA is potentially associated with public costs savings in expenditures related to providing on-site infrastructure, enforcement, and emergency services at the dunes. However, data are not available to estimate the extent of these cost savings; as such, these cost savings are not monetized in this analysis.

Comment 37: Two commenters noted that the substitute sites listed in Figure 3–2 do not provide recreational opportunities provided by the ISDRA in terms of acres available for dune recreation and distance from point of origin. One commenter specified that comparable alternatives should be limited a 250 mile radius from Los Angeles or Phoenix, cities from where the majority of ISDRA users originate.

Our Response: Substitute sites were compiled from a variety of sources, including published documents and personal communication with ISDRA dune users. As visitors from the ISDRA originate from a broad geographic area, the analysis assumed a broad distribution of OHV recreation. Figure 3–2 has been revised to incorporate updated information on types of recreational opportunities offered by the alternative OHV recreation areas (*e.g.* whether sites offer dune-based recreation). Information on potential substitute sites for OHV recreation within the region is provided as a basis for comparison and does not impact cost estimates presented in the report.

Comment 38: Several comments noted that the report fails to address or minimize the economic contribution of non-OHV recreation, overlooking the fact that non-OHV recreation may be precluded by OHV use due to safety concerns. One commenter also requested that the analysis address contributions of recreational activities associated with botanical opportunity.

Our Response: The report acknowledges the presence of non-OHV related recreational activities within the ISDRA, including hiking, horseback riding, conservation activities, and some commercial activities including filming (as stated in paragraph 6 and Section 2.3). While the ISDRA offers opportunities for non-OHV recreation, BLM has noted that these activities occur infrequently relative to OHV-based recreation. Based on historical use patterns within areas open to non-motorized recreation, non-OHV related

activities are expected to remain relatively modest in the future.

While non-motorized recreation is precluded in OHV-recreation areas due to safety concerns, it is difficult to determine whether closures to OHV-use would generate similar levels of visitation and expenditures by non-OHV recreational activities. Given the current disparity between the number of non-OHV trips and OHV based trips, non-OHV recreation given closures to OHV-use would likely draw several order of magnitude less visitation.

Comment 39: One commenter notes that the number of acres available to OHV use within the ISDRA reported in Figure 3–8 is misleading. The report presents 83,560 acres available to OHV use and the commenter notes that number should reflect acreage prior to the temporary closures, or 132,870 acres.

Our Response: Figure 3–8 has been revised to incorporate both temporary and permanent acreage numbers (83,560 and 132,870 acres available for OHV use).

Summary of Changes From the Proposed Rule

In the development of our final designation of critical habitat for *Astragalus magdalenae* var. *peirsonii*, we reviewed comments received on the proposed designation of critical habitat. In addition to minor clarifications and incorporation of additional information on the biology of *A. magdalenae* var. *peirsonii*, we made the following changes to the proposed designation:

(1) We did not include Subunit D in the final designation of critical habitat. Because of its relatively small size and separation from the other subunits, we do not consider it essential to the conservation of the taxon.

(2) We excluded portions of Subunit B and all of Subunit C from the final designation of critical habitat under section 4(b)(2) of the Act.

(3) We modified the primary constituent elements to include the associated co-adapted psammophytic (sand-loving) scrub plant community that supports the white-faced digger bee (*Habropoda* spp.), the primary pollinator of *Astragalus magdalenae* var. *peirsonii* (Porter 2003b).

Critical Habitat

Please see the proposed rule for critical habitat for *Astragalus magdalenae* var. *peirsonii* for a general discussion on sections 3, 4, and 7 of the Act in relation to critical habitat (68 FR 46143).

Methods

As required by section 4(b)(2) of the Act and regulations at 50 CFR 424.12, we used the best scientific and commercial information available to determine areas that contain the physical and biological features that are essential for the conservation of *Astragalus magdalenae* var. *peirsonii*. This included information from our own documents on this plant and related taxa; available information that pertains to the biology and habitat requirements of this taxon, including data from research and survey observations, such as WESTEC (1977), BLM surveys conducted from 1998 to 2002 (Willoughby 2000, 2001), TOA (2001), and Phillips and Kennedy (2002, 2003); the California Natural Diversity Database (2003); peer-reviewed journal articles and book excerpts regarding *A. magdalenae* var. *peirsonii*, similar species, or more generalized issues of conservation biology; unpublished biological documents; site visits; and discussions with botanical experts regarding *A. magdalenae* var. *peirsonii* and related species.

The areas designated as critical habitat are occupied by *Astragalus magdalenae* var. *peirsonii* as demonstrated by repeated surveys by BLM (Willoughby 2000, 2001), and independently confirmed by other surveys (TOA 2001; Phillips and Kennedy 2002, 2003). This plant may be present as standing plants, persisting as perennial root crowns in the sand, or as seed bank in the sand. During any given year, the suitable habitat for *A. magdalenae* var. *peirsonii* may be occupied by various combinations of these three life history phases. These surveys confirm the continuity of habitat for *A. magdalenae* var. *peirsonii* along the northwest-to-southeast axis of the Algodones Dunes. The dynamics of dune morphology, local rainfall patterns and amounts, spatial distribution of the seed bank, and seed scarification each contribute to the patchy or mosaic nature of the distribution of standing plants of *A. magdalenae* var. *peirsonii*. Local rainfall patterns and amounts are likely to cause shifts in the proportions of these three life history phases. All areas designated as critical habitat contain at least one of the primary constituent elements and have been determined to be essential to the conservation of the species.

The most extensive survey of the Algodones Dunes was conducted in 1977 (WESTEC 1977). This survey used 66 transects that ran across the dunes from west to east. The presence and relative abundance of standing plants of

Astragalus magdalenae var. *peirsonii* and four other rare psammophytic scrub species were recorded along these transects. In 1998, BLM began surveying for rare plants in the dunes repeating the methodology used by WESTEC in their 1977 survey. BLM surveyed 34 of the original 66 transects and employed a different abundance measure. The BLM conducted these surveys for 5 consecutive years (1998, 1999, 2000, 2001, and 2002) recording the presence and abundance of the rare plant taxa along these transects.

To determine the general range of *Astragalus magdalenae* var. *peirsonii* in the Algodones Dunes, we used survey information from published and unpublished documents and maps including WESTEC (1977), BLM (Willoughby 2000, 2001), and TOA (2001). WESTEC (1977) devised a grid system overlay for the Algodones Dunes. Each quadrant of the grid was approximately 0.45 mi (0.72 km) on a side. BLM reproduced this grid system to present data from their subsequent annual surveys from 1998 to 2002 (Willoughby 2000, 2001). Both WESTEC and BLM considered a grid square occupied if *A. magdalenae* var. *peirsonii* was encountered anywhere within that grid square. For comparison, we also superimposed census data included by TOA (2001) on this same grid system. We produced maps based on WESTEC (1977), BLM (Willoughby 2000, 2001), and TOA (2001) data. Because of the differences in survey methodologies and abundance classes used by these surveys, we considered each of these records to document presence or absence. Due to fluctuations in both the presence and abundance of *A. magdalenae* var. *peirsonii* from year to year, we combined the data from multiple years of survey data. Also the various surveys recorded standing plants as the only measure of occupancy, not taking into account a dormant seed bank or root crowns.

The survey efforts discussed above provided us with the data necessary to construct a model showing which regions of the Algodones Dunes represent habitat essential for the conservation of *Astragalus magdalenae* var. *peirsonii*. The model that we created used the data collected by the BLM from 1998 to 2002 as the input data and the data collected by WESTEC (1977) and TOA (2001) as a means of verifying the information generated by the model. The BLM data were used as the input data source for the model because it was more current, covered multiple years, and used the same methodology each year. Time and resources precluded us from conducting

independent surveys. Outlier occurrences evidenced only by WESTEC (1977) were not included because of the age of the report and the lack of substantiation by more recent BLM surveys.

In order to create this model we used BLM data to extrapolate the values for four variables: (1) The presence or absence of standing plants of *Astragalus magdalenae* var. *peirsonii*. This variable indicated localities where *A. magdalenae* var. *peirsonii* had been found in any of the five survey years either as seedlings or as older plants; (2) the relative abundance of *A. magdalenae* var. *peirsonii* in any of the five survey years. The highest abundance class value recorded for each grid cell during the five years of surveys was used as the cell's value for this variable. This variable was used to identify areas that support higher plant densities; (3) the frequency of occurrence of *A. magdalenae* var. *peirsonii* from year to year. This variable was calculated based on the number of times *A. magdalenae* var. *peirsonii* was reported in a grid cell throughout the five years of surveys. This variable was used to identify areas that continued to persist as productive habitat for *A. magdalenae* var. *peirsonii* over time; and (4) the number of associated rare psammophytic (dune loving) plant taxa present. These plants included *Croton wigginsii*, *Helianthus niveus* ssp. *tephrodes*, *Palafoxia arida* var. *gigantea*, and *Pholisma sonora*e. For each grid cell, scores were assigned based on the number of these associated plants that were found over the course of the five years of surveys. Higher scores may indicate a higher likelihood of the presence of *A. magdalenae* var. *peirsonii*, the biological diversity of associated psammophytic scrub species, and/or the presence of higher quality psammophytic scrub habitat that supports *A. magdalenae* var. *peirsonii*.

We calculated scores for each of these variables and then extrapolated the values for each variable for the entire dune area. We made this extrapolation based on a statistical method called Kriging, which calculates new values for unsurveyed areas based on the known values for the cells that were surveyed (Royle, Clausen, and Frederiksen, 1981; Oliver, M. A. and R. Webster. 1990). The data for these four variables were then standardized to a scale of 0 to 5 points so that the range of scores, from low to high, would be comparable to one another. The standardized scores were then totaled for each cell, for a possible high score of 20 points. This set of values was then further refined using the Kriging method to generate a map

similar in appearance to a topographic map, showing the resulting scores of the model in the same way a topographic map shows variations in elevation. This map showed a strong band of high values that ran along the northwest to southeast axis of the dune field. The portion of the dunes that corresponded to the top three categories of scores was delineated and identified as essential to the conservation of *Astragalus magdalenae* var. *peirsonii*. In order to provide legal descriptions of the critical habitat boundaries, we then overlaid a 100-meter grid to establish UTM North American Datum 27 (NAD 27) coordinates to define the critical habitat subunit boundaries.

Intrinsic to the creation of the essential habitat model for *Astragalus magdalenae* var. *peirsonii* was the application of several assumptions related to the (1) BLM study design (Willoughby 2000, 2001); (2) habitat and weather variability across the entire dune system; (3) paved roads as barriers to dispersal; (4) occurrences of plants and seeds in grid cells over different survey periods; and (5) model protocol. These assumptions are described to allow the reviewer to understand the potential strengths and limitations of the results of the habitat modeling. Based on the BLM study design, a consistent survey methodology was used for the plant surveys conducted in 1998, 1999, and 2000 (Willoughby 2000, 2001). Vegetation maps (BLM 2003), wind patterns (Romsper and Burk 1979; Norris and Norris 1961), and precipitation patterns (Willoughby 2000, 2001) supported our assumption that the habitat (in terms of dune action) precipitation, and vegetation, was uniform in variation and continuous throughout the dune system. Based on rainfall data collected from November 16, 2000, to March 16, 2001, (1.40 inches of precipitation was recorded at Cahuilla Ranger Station in the northwest part of the dunes and 2.67 inches of precipitation was reported at Buttercup Campground in the southern end of the dunes (Willoughby 2001)), BLM indicated that more precipitation may fall in the southern portion of the Algodones Dunes compared to the northern end of the dunes. However, given the limited precipitation data available for the Algodones Dunes (5 months) and the relatively short linear extent of the dunes (40 mi (64 km) long), we could not project a rainfall gradient and, instead, assumed that the precipitation was uniformly variable and continuous throughout the dune system. Based on observations of unimpeded sand and wind movement

across existing paved roads, we did not expect that the paved roads would represent a barrier to the dispersal of the fruits and seeds of *A. magdalenae* var. *peirsonii*. Surveys conducted by BLM indicate variability in occurrences of standing plants from year to year (Willoughby 2000, 2001), and that at any given time, these occurrences may represent standing plants, root crown regrowth, or seedlings of *A. magdalenae* var. *peirsonii*. We assumed that if standing plants were not found in a particular grid cell during a survey, but were recorded as present in other survey years, then that grid cell may be occupied by either root crowns or seeds of this species. BLM randomly selected survey transects and, as expected, this random selection results in gaps between transects. We projected the distribution of *A. magdalenae* var. *peirsonii* across the gaps by assuming that the values of unknown grid cells are more closely related to nearby cells rather than distant cells. Based on our analysis of these assumptions, we believe that the essential habitat model can be used to identify areas that are essential to the conservation of *A. magdalenae* var. *peirsonii* within the Algodones Dunes.

Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, in determining which areas to designate as critical habitat, we consider those physical and biological features (primary constituent elements) that are essential to the conservation of the species and that may require special management considerations or protection. These include but are not limited to: space for individual and population growth and for normal behavior; food, water, air, light, minerals or other nutritional or physiological requirements; cover or shelter; sites for germination or seed dispersal; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

All areas designated as critical habitat for *A. magdalenae* var. *peirsonii* are within the species' historical range and contain one or more of the biological and physical features (primary constituent elements) identified as essential for the conservation of the species. The primary constituent elements essential to the conservation of *Astragalus magdalenae* var. *peirsonii* habitat are based on specific components that are described below.

Space for Individual and Population Growth, Including Sites for Germination, Pollination, Reproduction, Seed Dispersal, and Seed Bank

The active sand dunes provide space for individual and population growth for *Astragalus magdalenae* var.

peirsonii. In the United States, *A. magdalenae* var. *peirsonii* is limited to a band of sand dunes in the central portion of the Algodones Dunes. The dunes in this band are composed of a series of transitional crescentic ridges (Muhs *et al.* 1995). Active sand dunes are characterized by bowls (hollows among the dunes), swales (low area), and slip faces (areas so steep that the loose sand naturally cascades downward) that run transverse to the primary ridge line. *Astragalus magdalenae* var. *peirsonii* occurs on the active sand dunes, generally where the slopes of the faces of the sand dunes are less than 30 degrees, but generally less than 20 degrees. These active sand dunes provide the habitat for the natural fluctuations of the population over time.

Astragalus magdalenae var. *peirsonii* occurs in a vegetation community referred to as psammophytic scrub (WESTEC 1977; Willoughby 2000).

Astragalus magdalenae var. *peirsonii* is associated with other psammophytic plants (e.g., *Croton wigginsii*, *Eriogonum deserticola*, *Helianthus niveus* ssp. *tephrodes*, *Palafoxia arida* var. *gigantea*, *Pholisma sonora*, and *Tiquilia plicata*). In areas where the sand dunes are more stabilized (less sand dune building and movement), such as along the margins of the dune fields, the open canopy psammophytic scrub community is replaced by the sandier phases of the creosote bush scrub community.

Astragalus magdalenae var. *peirsonii* is apparently excluded from the relatively more closed canopy creosote bush scrub community. The associated co-adapted psammophytic scrub plant community also supports the white-faced digger bee (*Habropoda* spp.), the primary pollinator of *Astragalus magdalenae* var. *peirsonii* (Porter 2003b).

Sand movement, dune-building, and dune migration are likely determined by the wind regime (Norris and Norris 1961). Winds from the northwest are prevalent in the winter, while in the summer the winds are from the southeast (Romsper and Burk 1979). Muhs *et al.* (1995) found during a study of the sand source for the Algodones Dunes that dominant sand-moving winds are as follows: prevailing from the northwest all year at Indio, California, from the west or southwest all year at El Centro, California, and

from the northwest in winter and from the southeast in summer at Yuma, Arizona. These winds are responsible for the dispersal of seeds and fruits within the Algodones Dunes. Seeds are either dispersed locally by falling out of partly opened fruits on the parent plant or by their release from fruits blown across the sand after falling from the parent plant. Seed germination patterns likely reflect the horizontal and vertical distribution of the seed bank in the shifting sand dunes (seeds will not effectively germinate where they are buried below a certain depth of sand). As an adaptation to shifting sands and low soil moisture, this species has developed extremely long tap roots (Barneby 1964) that penetrate deeply to the more moist sand and anchor the plants in the shifting dunes. Seeds buried in the sand function as the seed bank and allow for growth when suitable conditions, such as adequate rainfall, scarification, and suitable sand depths, are met.

Intervening Areas for Gene Flow and Connectivity Within the Population

The active sand dunes are continuous along the northwest-to-southeast axis. The continuity of the sand dunes provide connectivity and facilitate gene flow within the population by allowing the movement of pollinators and the wind dispersal of fruit and seeds. Consistent with the principles of conservation biology, critical habitat includes relatively large contiguous blocks of habitat that encompass the most important areas identified by our essential habitat model. Moreover, we do not expect that the paved roads would represent a barrier to the dispersal of the fruits and seeds of *Astragalus magdalenae* var. *peirsonii*.

Areas That Provide the Basic Requirements for Growth (Such as Water, Light, and Minerals)

A soil survey for the Imperial Valley area of Imperial County (Zimmerman 1981) did not include the areas east of the Coachella Canal but did depict a few adjacent portions of the Algodones Dunes as Rositas fine sand with 9 to 30 percent slopes. Rositas fine sand are described as deep, somewhat excessively drained, sloping soils formed in wind-blown sands of diverse origin. Dean (1978) describes the sand as quartz with a mean grain size of 0.006 in (0.17 mm). The dunes contain 60 to 70 percent quartz and 30 to 40 percent feldspar sand (Norris and Norris 1961). The Algodones Dunes are one of the driest and hottest regions in the United States. Romsper and Burk (1979) reported average yearly precipitation

between 1941–1970 was 2.6 in (67.8 mm). The rainfall is often described as scattered or patchy. Rainfall amounts differ from place to place and from year to year with areas to the northwest being generally dryer than those to the southeast (Willoughby 2001). The central areas of the Algodones Dunes provide the appropriate sand substrate and rainfall pattern to augment the basic requirements for growth of *Astragalus magdalenae* var. *peirsonii*.

Based on the best available information at this time, the primary constituent elements of critical habitat for *Astragalus magdalenae* var. *peirsonii* consist of:

(1) Intact, active sand dune systems (defined as sand areas that are subject to sand-moving winds that result in natural expanses of bowls, swales, and slopes and support the co-adapted psammophytic scrub plant and invertebrate communities) within the existing range of *Astragalus magdalenae* var. *peirsonii* that are characterized by:

(A) Substrates of the Rositas soil series, specifically Rositas fine sands of sufficient depth to promote *Astragalus magdalenae* var. *peirsonii* and discourage creosote bush scrub;

(B) Wind-formed slopes of less than 30 degrees, but generally less than 20 degrees; and

(C) The associated co-adapted psammophytic scrub plant community (e.g., *Croton wigginsii*, *Eriogonum deserticola*, *Helianthus niveus* ssp. *tephrodes*, *Palafoxia arida* var. *gigantea*, *Pholisma sonora*, and *Tiquilia plicata*) that supports the white-faced digger bee (*Habropoda* spp.), the primary pollinator of *Astragalus magdalenae* var. *peirsonii* (Porter 2003b).

Criteria Used To Identify Critical Habitat

We identified critical habitat essential to the conservation of *Astragalus magdalenae* var. *peirsonii* where it currently occurs or has been known to occur in the Algodones Dunes. We are designating critical habitat to maintain self-sustaining populations of *A. magdalenae* var. *peirsonii* within the range of the taxon in the United States.

Astragalus magdalenae var. *peirsonii* has a very limited range even within the Algodones Dunes. Less than one-third of the area delineated by the ISDRA has documented occurrences of *A. magdalenae* var. *peirsonii*. Extreme fluctuations in populations have been demonstrated. As a result, it is likely in some years that few, if any, seeds are added to the soil seed bank. The patchy distribution of the plants in any given year is likely a combination of several factors including the dynamics of dune

morphology, local rainfall patterns and amounts, as well as the spatial distribution of the seed bank, and seed scarification.

We used the top three rankings of the essential habitat model to select areas to designate as critical habitat for *Astragalus magdalenae* var. *peirsonii*. The top three rankings identified areas where standing plants, root crowns, or seed bank are likely to occur at higher densities based on abundance class values, occurred at a higher frequency and persisted from year to year, and co-occurred with other rare psammophytic scrub plants as an indicator of habitat quality and biological diversity. We consider the most important areas for *Astragalus magdalenae* var. *peirsonii* to extend along the central westerly spine of the Algodones Dunes. The previously proposed Subunit D was located along the easterly edge of the main sand dune formations at the southern end of the Algodones Dunes. In general, low numbers of *Astragalus magdalenae* var. *peirsonii* were found in the vicinity of the former Subunit D. The previously proposed Subunit D was also divided by the All-American Canal (Canal), with the majority of the subunit occurring northeast of the Canal. The Canal likely acts as a barrier to the dispersal of wind-blown seed and seed capsules, thereby isolating the northeast section of the former Subunit D from the rest of the Algodones Dunes. Therefore, we did not include Subunit D in the final designation of critical habitat for *Astragalus magdalenae* var. *peirsonii* because of its relatively small size and separation from the other critical habitat subunits.

In designating critical habitat, we made an effort to avoid developed areas,

OHV staging areas, and disturbed areas along roadways that are unlikely to contain the primary constituent elements. However, we did not map critical habitat in sufficient detail to exclude all developed areas or other lands unlikely to contain the primary constituent elements essential for the conservation of *Astragalus magdalenae* var. *peirsonii*. Areas within the boundaries of the mapped subunits, such as buildings, roads, parking lots, railroad tracks, canals, and other paved areas, will not contain one or more of the primary constituent elements and thus do not constitute critical habitat for the species. Federal actions limited to these areas, therefore, would not trigger a consultation under section 7 of the Act, unless it is determined that such actions may affect the species and/or adjacent critical habitat.

Special Management Considerations or Protections

Special management considerations or protections may be needed to maintain the physical and biological features as well as the primary constituent elements that are essential for the conservation of *Astragalus magdalenae* var. *peirsonii* within designated critical habitat. The term "special management considerations or protection" originates in section 3(5)(A) of the Act under the definition of critical habitat. We believe that the designated critical habitat subunits may require the special management considerations or protections due to the threats outlined below.

1. Activities that disrupt the natural processes that support dune formation, movement, and structure to allow the natural distribution pattern of

Astragalus magdalenae var. *peirsonii*. For examples, barriers to sand movement that deplete downwind sand dunes and habitats.

2. Activities that degrade the psammophytic scrub plant community that is an indicator of habitat quality.

3. Activities that increase sand compaction, such as OHV activity, leading to burial of the seed bank from the collapse of dune faces and ridges, and exposure of the seed bank.

BLM released a Recreation Area Management Plan (RAMP) for the Imperial Sand Dunes (BLM 2003). A specified major focus of the RAMP is to ensure that the OHV recreational opportunities of the ISDRA are continuously available while responding to increased need for protection of plant and animal species in the dunes (BLM 2003). Species-specific management needs and measures for *Astragalus magdalenae* var. *peirsonii* are not addressed in the RAMP. In the RAMP, BLM includes an intensive monitoring/study plan that they are implementing. The results of this monitoring will be incorporated into a management plan developed for *A. magdalenae* var. *peirsonii*.

Critical Habitat Designation

The critical habitat areas described below include one or more of the primary constituent elements described above and constitute our best assessment at this time of the areas needed for the conservation of *Astragalus magdalenae* var. *peirsonii*. Lands designated as critical habitat include Federal and private lands. The approximate areas of critical habitat by land ownership and subunits are summarized in Table 1.

TABLE 1.—APPROXIMATE AREAS IN ACRES (AC) AND HECTARES (HA) OF DESIGNATED CRITICAL HABITAT FOR *Astragalus magdalenae* VAR. *peirsonii* BY LAND OWNERSHIP AND SUBUNITS.

Unit	Federal	State	Private	Total
Subunit A	14,544 ac (5,886 ha)	550 ac (223 ha)	1,414 ac (572 ha)	16,509 ac (6,681 ha).
Subunit B	5,355 ac (2,167 ha)	0 ac (0 ha)	0 ac (0 ha)	5,355 ac (2,167 ha).
Total	19,899 ac (8,053 ha)	550 ac (223 ha)	1,414 ac (572 ha)	21,863 ac (8,848 ha).

The Algodones Dunes Critical Habitat Unit is divided into two subunits (Subunits A and B). The essential habitat model for *Astragalus magdalenae* var. *peirsonii* was used to identify those portions of the Algodones Dunes that were considered essential for the conservation of this species. Only a portion of the Algodones Dunes was designated as critical habitat based on the essential habitat model and discussion with BLM on high use

recreational areas within the ISDRA. Subunits A and B contain the top three rankings (on a five rank scale) of the essential habitat model and were designated as critical habitat. Areas in Subunits A and B that fell within the top three rankings were believed to provide the best habitat because of the documented presence, higher densities, and long-term persistence of *A. magdalenae* var. *peirsonii*, and habitat quality based on co-occurrences with

other psammophytic scrub plants. The gaps and highways between critical habitat subunits are likely traversed occasionally by mature fruits dispersed by the wind and by pollinators.

Subunit A is north of State Highway 78 and encompasses portions of the Mammoth and North Algodones Dunes Wilderness. The majority of this critical habitat subunit lies within the North Algodones Dunes Wilderness. This subunit receives the lowest level of

human disturbance because the North Algodones Dunes Wilderness is closed by BLM to recreational motorized vehicles. This subunit is essential to the conservation of *Astragalus magdalenae* var. *peirsonii* because it retains the most natural and pristine features of the Algodones Dunes ecosystem. This subunit includes the best remaining example of a dune system undisturbed by intensive OHV recreation.

Subunit B is south of State Highway 78 and north of Interstate 8 and encompasses the Ogilby Management Area. This subunit is essential to the conservation of *Astragalus magdalenae* var. *peirsonii* because it represents the largest, widest, and highest sand dune fields within the Algodones Dunes and thereby supports large numbers and high densities of *A. magdalenae* var. *peirsonii*. The natural processes of dune movement that maintain the biological conditions necessary to support *A. magdalenae* var. *peirsonii* are still retained.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7 of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify critical habitat. In our regulations at 50 CFR 402.2, we define destruction or adverse modification as “a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to: Alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical.” However, in a March 15, 2001, decision of the United States Court Appeals for the Fifth Circuit (*Sierra Club v. U.S. Fish and Wildlife Service et al.*, F.3d 434), the court found our definition of adverse modification to be invalid. In response to this decision, we are reviewing the regulatory definition of adverse modification in relation to the conservation of the species.

Section 7(a) of the Act requires Federal agencies, including the Service, to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened, and with respect to its critical habitat, if any is designated or proposed. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into

consultation with us. Through this consultation, the Federal action agency would ensure that the permitted actions do not destroy or adversely modify critical habitat. Destruction or adverse modification of critical habitat occurs when a Federal action directly or indirectly alters critical habitat to the extent that it appreciably diminishes the value of critical habitat for the conservation of the species. Individuals, organizations, States, local governments, and other non-Federal entities are affected by the designation of critical habitat only if their actions occur on Federal lands, require a Federal permit, license, or other authorization, or involve Federal funding.

If we issue a biological opinion concluding that a project is likely to result in the destruction or adverse modification of critical habitat, we also provide “reasonable and prudent alternatives” to the project, if any are identifiable. Reasonable and prudent alternatives are defined at 50 CFR 402.02 as alternative actions identified during consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency’s legal authority and jurisdiction, that are economically and technologically feasible, and that the Director believes would avoid the likelihood of jeopardizing the continued existence of listed species or resulting in the destruction or adverse modification of critical habitat.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions under certain circumstances, including instances where critical habitat is subsequently designated and the Federal agency has retained discretionary involvement or control over the action or such discretionary involvement or control is authorized by law. Consequently, some Federal agencies may request reinitiation of consultation or conference with us on actions for which formal consultation has been completed, if those actions may affect designated critical habitat, or adversely modify or destroy proposed critical habitat, respectively.

Nearly all of the designated critical habitat is on BLM lands. Activities on BLM lands or by Federal agencies that may affect *Astragalus magdalenae* var. *peirsonii* or its critical habitat will require section 7 consultation. Activities on private or State lands requiring a permit from BLM or any other activity requiring Federal action (*i.e.* funding or authorization) that may affect this species will also continue to be subject to the section 7 consultation. Federal

actions not affecting *A. magdalenae* var. *peirsonii* or its critical habitat, as well as actions on non-Federal lands that are not federally funded or permitted, will not require section 7 consultations for this species.

The areas designated as critical habitat are occupied by either above-ground plants or a seedbank of *A. magdalenae* var. *peirsonii*. BLM and other Federal agencies already consults with us on activities where the species may be present to ensure that their actions do not jeopardize the continued existence of the species. Actions on which Federal agencies consult with us on effects to *A. magdalenae* var. *peirsonii* include, but are not limited to:

- (1) Development of the Recreational Area Management Plan for the Imperial Sand Dunes Recreation Area by the Bureau of Land Management;
- (2) Issuance of permits for private actions (*e.g.* filming) on Federal lands within the Algodones Dunes by the Bureau of Land Management;
- (3) Modifications to the All American Canal by the Bureau of Reclamation; and,
- (4) Construction and maintenance of facilities by the U.S. Border Patrol.

Section 4(b)(8) of the Act requires us to evaluate briefly and describe in any proposed or final regulation that designates critical habitat those activities involving a Federal action that may adversely modify such habitat or that may be affected by such designation. Activities that may destroy or adversely modify critical habitat would be those that alter the primary constituent elements to the extent that the value of critical habitat for the conservation of the *Astragalus magdalenae* var. *peirsonii* is appreciably reduced.

Activities that, when carried out, funded, or authorized by a Federal agency, may affect critical habitat and require that a section 7 consultation be conducted include, but are not limited to:

- (1) Activities that may affect *Astragalus magdalenae* var. *peirsonii* by disturbing or degrading the structure of the dunes (ridges, slip faces, bowls, and swales);
- (2) Activities that may affect *Astragalus magdalenae* var. *peirsonii* by compacting or disturbing the sand such that seeds of *Astragalus magdalenae* var. *peirsonii* are not capable of germinating or plants are not able to survive; and,

Activities that may destroy or adversely modify critical habitat include those that alter the primary constituent elements to an extent that the value of critical habitat for both the survival and

recovery of *Astragalus magdalenae* var. *peirsonii* is appreciably reduced. We note that such activities may also jeopardize the continued existence of the species.

We completed a section 7 consultation with BLM on the Imperial Sand Dunes RAMP dated April 3, 2003. In that biological opinion, we concluded that the implementation of the RAMP is not likely to jeopardize the continued existence of *Astragalus magdalenae* var. *peirsonii*.

We recognize that the designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species. For these reasons, we want to ensure that the public is aware that critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery. Areas outside the designated critical habitat designation will continue to be subject to conservation actions that may be implemented under section 7(a)(1) of the Act and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard and the prohibitions of section 9 of the Act. Critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if new information available to these planning efforts calls for a different outcome.

If you have questions regarding whether specific activities will constitute destruction or adverse modification of critical habitat, contact the Field Supervisor, Carlsbad Fish and Wildlife Office (see **ADDRESSES** section). Requests for copies of the regulations on listed wildlife and plants and inquiries about prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, Branch of Endangered Species, 911 N.E. 11th Ave, Portland, OR 97232 (telephone 503/231-2063; facsimile 503/231-6243).

All lands designated as critical habitat are within the geographical area occupied by the species and are essential for the conservation of *Astragalus magdalenae* var. *peirsonii*. Federal agencies already consult with us on actions that may affect *A. magdalenae* var. *peirsonii* to ensure that their actions do not jeopardize the continued existence of the species. Thus, we do not anticipate substantial additional regulatory protection will result from critical habitat designation.

Economic Analysis

Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific and commercial data available and to consider the economic and other relevant impacts of designating a particular area as critical habitat. We may exclude areas from critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of specifying such areas as critical habitat. We cannot exclude such areas from critical habitat when such exclusion will result in the extinction of the species.

An analysis of the potential economic impacts of designating critical habitat for the *Astragalus magdalenae* var. *peirsonii* was prepared and was made available for public review on April 6, 2004 (69 FR 18016). We accepted comments on the draft economic analysis until May 6, 2004. This analysis considered the potential economic effects of designating critical habitat as well as the protective measures taken as a result of the listing of *A. magdalenae* var. *peirsonii* as a threatened species, and other Federal, State, and local laws that aid habitat conservation in areas designated as critical habitat. The economic analysis considered a No Closure Scenario (BLM Management Areas are not closed to OHV recreation as a result of critical habitat) and a Closure Scenario (BLM Management Areas are closed to OHV recreation as a result of critical habitat) to estimate the economic costs of designating critical habitat.

Application of Section 4(b)(2) and Exclusions Under Section 4(b)(2) of the Act

Pursuant to section 4(b)(2) of the Act, we must consider relevant impacts in addition to economic ones. We determined that the lands within the designation of critical habitat for *Astragalus magdalenae* var. *peirsonii* are not owned or managed by the Department of Defense, there are currently no habitat conservation plans for *A. magdalenae* var. *peirsonii*, and the designation does not include any Tribal lands or trust resources. The BLM's RAMP for the ISDRA does not address the species-specific management needs and measures for *A. magdalenae* var. *peirsonii*. A specified major focus of the RAMP is to ensure that the OHV recreational opportunities of the ISDRA are continuously available while responding to increased need for protection of plant and animal species in the dunes. In the RAMP, BLM includes an intensive monitoring/study plan that they are implementing. The

results of this monitoring will be incorporated into a management plan developed for *A. magdalenae* var. *peirsonii*. Within the ISDRA, the 32,000-acre North Algodones Dune Wilderness was designated as a wilderness area to protect a number of rare and endemic plant and animal species, including *A. magdalenae* var. *peirsonii*. Management of the North Algodones Dune Wilderness takes the form of "minimal and subtle on-site controls and restrictions" (BLM 2003). The North Algodones Dune Wilderness was not excluded from the critical habitat designation because this area is essential to the conservation of the species and may require special management consideration or protection.

We have excluded portions of Unit 1B, consisting of the proposed critical habitat within the Gecko and Glamis Management Areas, and the Adaptive Management Area, totaling approximately 28,978, and all of proposed unit 1C, totaling 1,490 acres, under section 4(b)(2) of the Act. This section allows the Secretary to exclude areas from critical habitat if she determines that the benefits of such exclusion exceed the benefits of designating the area as critical habitat, unless the exclusion will result in the extinction of the species concerned. This is a discretionary authority Congress has provided to the Secretary with respect to critical habitat. The analysis, which led us to the conclusion that the benefits of excluding these areas exceed the benefits of designating them as critical habitat, and will not result in the extinction of the species, follows.

(1) Benefits of Inclusion

The areas excluded are within proposed Unit 1B and all of proposed Unit 1C. Unit 1B absent this exclusion would consist of 33,958 acres of Federal land, 91 acres of private land, and 283 acres of State land as critical habitat for *Astragalus magdalenae* var. *peirsonii*. It is currently occupied by the species. Unit 1C absent this exclusion would consist of 1,490 acres of Federal land, and is also currently occupied.

If these areas were designated as critical habitat, any actions BLM proposed to approve, fund or undertake which might adversely modify the critical habitat would require a consultation with us. If the action affected an area occupied by the plants, consultation would be required even without the critical habitat designation. As indicated above, these two units are each occupied by the listed plant, so consultation on BLM's activities on the

excluded lands will be required even without the critical habitat designation.

Another possible benefit of a critical habitat designation is education of landowners and the public regarding the potential conservation value of these areas. This may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation values for certain species. However, we believe that this educational benefit has largely been achieved. Almost all of the proposed critical habitat is Federal land managed by BLM. As a Federal agency, they have a statutory duty to manage their lands for the conservation of listed species, including *Astragalus magdalenae* var. *peirsonii*. They have already developed a management plan for the species on these lands, and are currently engaged in a section 7 consultation with the Service on it, and a conference on the proposed critical habitat. However, this process will not be concluded prior to the date by which a final decision on this critical habitat designation must be made. These units have already been identified through the draft proposal. In addition, an organization of OHV users has sponsored studies of the plant on the lands included in the proposal, and there has been litigation over management of the area. Therefore, we believe the education benefits, which might arise from a critical habitat designation here, have already been generated.

In summary, we believe that a critical habitat designation for this plant species would provide virtually no additional Federal regulatory benefits. Because almost all of the proposed critical habitat is Federal land occupied by the species, the BLM must consult with the Service over any action it undertakes, approves or funds which might impact the *Astragalus magdalenae* var. *peirsonii*. The additional educational benefits, which might arise from critical habitat designation, are largely accomplished through the proposed rule and request for public comment that accompanied the development of this regulation, and the proposed critical habitat is known to the BLM and to the recreational users of the land.

(2) Benefits of Exclusion

We fully recognize there is a great deal of uncertainty in estimating the impact of management for the conservation of this species on future use of the ISDRA. As set out in the economic analysis done for this proposal, the outcome of future management decisions could range from no effects to complete closure of certain management areas to OHV use.

Alternatively, future consultations and other management actions could result in limitations on the number of users allowed within a given management area. We note that it is not possible to forecast with certainty whether critical habitat designation would result in closures of portions of the ISDRA to OHV use, or in limitations on numbers of users.

In this regard, it is important to note that the concept of closing all or part of the ISDRA to OHV use due to the presence of the *Astragalus magdalenae* var. *peirsonii* is not a hypothetical concern—portions of the area have been closed as a result of litigation and resulting conservation actions related to the *Astragalus magdalenae* var. *peirsonii*.

The economic analysis estimates that the total present value of lost OHV opportunities due to this closure occurring between 2001 and 2004 is approximately \$20.37 million. On an annual basis, these consumer surplus impacts associated with lost OHV opportunities are approximately \$5.09 million per year during the closure period (2001 to 2004). While these closures are potentially associated with cost savings to public agencies, local communities, and health and safety service providers, the economic analysis did not attempt to provide monetary estimates for these, and it is not clear that they would be significant when compared to the economic benefits of OHV use even if analyzed.

The estimated regional economic impact of the current closure ranges from approximately \$13 million to \$26 million, and in the loss of up to 527 jobs. The loss in trips may also impact taxes by as much as \$1.46 million in Imperial County, California and \$260,000 in Yuma County, Arizona.

We are therefore not addressing solely theoretical economic and human impacts, but rather the possibility of future economic and human impacts greater than those that have already occurred. In this context, it is important to note that Imperial and Yuma Counties have consistently had unemployment rates far greater than the national average, which will be addressed in more detail below.

Although the outcome of future section 7 consultations or litigation associated with implementation of the RAMP and the designation of critical habitat are uncertain, closure of management areas within the ISDRA to OHV use to protect the PMV has occurred in the past. As a result, the economic analysis provided a range of economic estimates that could be used to understand the impact of a variety of

potential future regulatory outcomes. Those desiring a detailed understanding of those estimates, and the limitations associated with them, should consult the economic analysis.

Whether OHV access would be limited in the future within the proposed critical habitat areas we have excluded would depend on the outcome of currently ongoing and future section 7 consultations, which, in turn, must be made on the basis of the best available scientific information, and not the economic impacts which might occur. Similarly, litigation over the adequacy of conservation measures for the *Astragalus magdalenae* var. *peirsonii* would not likely take economic or other impacts into account. Congress has provided this opportunity, during the designation of critical habitat, for economic, national security and other relevant impacts to be taken into account as we decide whether to exclude areas from the designation because the benefits of avoiding those possible impacts, through exclusion, exceed the benefit of designating the area as critical habitat.

The economic analysis looked at two different generally accepted ways of measuring economic impacts from possible closures of areas to OHV use—economic efficiency and regional economic impact. The figures resulting from these analyses are not the same, and should not be added in an effort to obtain cumulative totals. Please consult the economic analysis for explanations of the two methods and of their differences.

The economic analysis found that if all of the areas proposed for designation within the ISDRA were closed to OHV use, the efficiency effects would range from \$9.5 million per year to \$10.5 million per year—\$0.57 million per year in administrative and project modification costs plus consumer surplus impacts ranging from \$8.9 million per year to \$9.9 million per year, in 2003 dollars. Similarly, such a closure would cause the regional economy would see an upper bound reduction in output of \$55 million to \$124 million in year 2013 (2003 dollars), and a potential loss in employment of 1,207 to 2,585 jobs.

Output (*i.e.*, industry revenue) for all industries in these two counties is approximately \$8.6 billion. Employment in these two counties is approximately 134,000. The upper-bound regional economic contribution of OHV recreation within the proposed critical habitat areas of the ISDRA represents 1.4 percent of total output and nearly 2 percent of total employment in the two-county area.

Additionally, total annual sales within Imperial and Yuma County industries that benefit from OHV recreation provide an additional basis of comparison for the result of the regional economic contributions. These industries include retail trade and accommodation and food services. Total annual sales in these industries were approximately \$2.24 billion in 1997. Employment in these two sectors was 18,871.

The upper-bound regional economic contribution of OHV recreation within the proposed critical habitat areas of the ISDRA represents 5.5 percent of total output and 13.7 percent of total employment within these two sectors in the two-county area.

As noted above, Imperial and Yuma Counties have historically experienced significantly higher levels of unemployment relative to neighboring counties, their respective states and the rest of the nation. As of June 2004, the unemployment rate was 21.6% in Imperial County, California, and 27.6% in Yuma County Arizona (see websites referenced in the Economic Analysis for this date). Moreover, these two counties have a less diverse economic base than most others in the two States. Thus, reduced ISDRA visitation that results in revenue, employment and tax losses may pose considerable burdens to local communities.

Because we are not excluding all proposed critical habitat, the economic impact figures adjusted downwards slightly to reflect the impact of possible closures on just the areas we are excluding. Future administrative and project modification costs, discounted to present value using a rate of seven percent, are forecast at \$11.4 million, or \$0.6 million annually. These costs will be incurred by BLM on implementing ISDRA-wide milk-vetch conservation measures, including monitoring and enforcement, and section 7 consultation with the Service. Future costs related specifically to monitoring and enforcing the geographical extent of the final critical habitat designation are likely to be smaller and represent a portion of total forecast costs. If all critical habitat areas were closed to OHV use, the efficiency effects would be the sum of administrative and project modification costs (\$0.6 million annually), and consumer surplus losses associated with Mammoth Wash, North Algodones, and Ogilby management areas (a total of \$0.2 million annually). Total efficiency effects associated with the designation would be \$0.8 million annually.

Similarly, the upper boundary of possible reductions in output and loss of jobs must be adjusted. If no OHV

closures were to occur, the rule would have no impact on the regional economy. If all of the critical habitat areas within the ISDRA were closed to OHV use, the regional economy would experience an upper bound reduction in output of \$2.8 million (2003 dollars) and a potential loss in employment of 60 jobs.

Several businesses located in the major towns within Imperial and Yuma Counties are dependent on the recreational activities that occur within the ISDRA, specifically OHV activities. Any reduction in the number of trips made to the dunes is likely to adversely impact these businesses and the overall regional economy. Additionally, losses to businesses within Imperial and Yuma Counties from decreased ISDRA visitation are unlikely to be replaced by expenditures on other goods and services of the same order and magnitude.

Thus, the economic impact of closure of the areas we have excluded within the proposed critical habitat to OHV use would be locally very significant, as would the human impact of the potential job losses.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

We do not believe that the benefits from the designation of critical habitat for lands we have decided to exclude—a limited educational benefit and very limited regulatory benefit, which are largely otherwise provided for, as discussed above—exceed the benefits of avoiding the potential economic and human costs which could result from including those lands in this designation of critical habitat. We therefore find that the benefits of excluding these areas from this designation of critical habitat outweigh the benefits of including them in the designation.

In summary, the benefit of excluding these areas from critical habitat is avoidance of the risk that the areas would be closed in whole or in part to OHV use as a result of the critical habitat designation. This would avoid the potential adverse efficiency effects of up to \$193.93, adverse impacts on the regional economy between \$53.73 million and \$121.16 million, and the possible loss of 1,179 and 2,525 jobs, as projected in the economic analysis, in two counties with current unemployment rates of 21.6 and 27.6 percent.

We again recognize that there is no certainty that economic impacts would reach the projected levels should closures occur, or that there would be future closures of these areas due to a

critical habitat designation. However, we believe that the designation increases the risk of closure, as two of the three actions described later in this document as likely to trigger section 7 consultations for possible adverse modification of critical habitat are directly related to OHV use. We also recognize that we are excluding a sizeable portion of the original proposal.

However, Congress expressly contemplated that exclusions based on potential impacts, and of this or even larger portions of proposed critical habitat, might occur when it enacted the exclusion authority. House Report 95–1625, stated on page 17:

Factors of recognized or potential importance to human activities in an area will be considered by the Secretary in deciding whether or not all or part of that area should be included in the critical habitat * * * In some situations, no critical habitat would be specified. In such situations, the Act would still be in force prevent any taking or other prohibited act. * * * (emphasis supplied).

We accordingly believe that these exclusions, and the basis upon which they are made, are fully within the parameters for the use of section 4(b)(2) set out by Congress.

(4) Exclusion Will Not Result in Extinction of the Species

We believe that exclusion of these lands will not result in extinction of the species. Nearly 99% of the excluded lands are Federal lands occupied by the species. The species is accordingly protected under section 9(a)(2) of the Act. Any actions by the BLM, which might adversely affect the plants, must undergo a consultation with the Service under the requirements of sec. 7 of the Act. The exclusions leave these protections unchanged from those that would exist if the excluded areas were designated as critical habitat. The plant is listed as threatened, not endangered. A sizeable portion of its habitat is designed wilderness, where OHV use and other mechanical transportation or development is prohibited by statute. There is accordingly no reason to believe that these exclusions would result in extinction of the species.

Required Determinations

Regulatory Planning and Review

In accordance with Executive Order 12866, this document is a significant rule in that it may raise novel legal and policy issues, but it is not anticipated to have an annual effect on the economy of \$100 million or more or affect the economy in a material way. Due to the tight timeline for publication in the **Federal Register**, the Office of

Management and Budget (OMB) has not formally reviewed this rule. We prepared an economic analysis of this action and used this analysis to meet the requirement of section 4(b)(2) of the Act to determine the economic consequences of designating the specific areas as critical habitat and excluding any area from critical habitat if it is determined that the benefits of such exclusion outweigh the benefits of specifying such areas as part of the critical habitat, unless failure to designate such area as critical habitat will lead to the extinction of the *Astragalus magdalena* var. *peirsonii*.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*, 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 effects 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 the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended the Regulatory Flexibility Act 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. SBREFA also amended the Regulatory Flexibility Act to require a certification statement. Based on the information that is available to us at this time, we are certifying that designation of critical habitat will not have a significant economic impact on a substantial numbers of small entities. The following discussion explains our rationale.

According to the Small Business Administration (SBA), small entities include small organizations, including any independent nonprofit organization that is not dominant in its field, and small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents, as well as small businesses. The SBA defines small businesses categorically and has provided standards for determining what constitutes a small business at 13 CFR parts 121–201 (also found at <http://www.sba.gov/size/>), which the Regulatory Flexibility Act requires all

Federal agencies to follow. To determine if potential economic impacts to these small entities are significant, we consider the types of activities that might trigger regulatory impacts under this rule as well as the types of project modifications that may result.

The Regulatory Flexibility Act 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 the relative cost of compliance on the revenues/profit margins of small entities in determining 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 Regulatory Flexibility Act. (*Mid-Tex Electric Co-Op, Inc. v. FERC* and *American Trucking Associations, Inc. v. EPA*).

To determine if the rule would affect a substantial number of small entities, we considered the number of small entities affected within particular types of economic activities (*e.g.*, housing development, grazing, oil and gas production, timber harvesting). We applied the “substantial number” test individually to each affected industry to determine if certification is appropriate. In estimating the numbers of small entities potentially affected, we also considered whether their activities have any Federal involvement; some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation.

Designation of critical habitat only affects activities conducted, funded, or permitted by Federal agencies; non-Federal activities are not affected by the designation if they lack a Federal nexus. In areas where the species is present, Federal agencies funding, permitting, or implementing activities are already required to avoid jeopardizing the continued existence of the *Astragalus magdalena* var. *peirsonii* through consultation with us under section 7 of the Act. If this critical habitat designation is finalized, Federal agencies must also consult with us to ensure that their activities do not destroy or adversely modify designated critical habitat through consultation with us.

Should a federally funded, permitted, or implemented project be proposed that may affect designated critical

habitat, we will work with the Federal action agency and any applicant, through section 7 consultation, to identify ways to implement the proposed project while minimizing or avoiding any adverse effect to the species or critical habitat. In our experience, the vast majority of such projects can be successfully implemented with at most minor changes that avoid significant economic impacts to project proponents.

Based on our experience with section 7 consultations for all listed species, virtually all projects—including those that, in their initial proposed form, would result in jeopardy or adverse modification determinations in section 7 consultations—can be implemented successfully with, at most, the adoption of reasonable and prudent alternatives. These measures, by definition, must be economically feasible and within the scope of authority of the Federal agency involved in the consultation. The kinds of actions that may be included in future reasonable and prudent alternatives include avoidance, conservation set-asides, management of competing non-native species, restoration of degraded habitat, construction of protective fencing, and regular monitoring. These measures are not likely to result in a significant economic impact to project proponents.

The economic analysis also evaluated potential impacts to small businesses. Several businesses that operate within Imperial and Yuma Counties are dependent on the recreational activities that occur within the ISDRA. Major towns in the counties have a number of small businesses that sell OHVs and OHV accessories and services and market to both local and tourist populations. In addition, a number of small businesses exist within the geographical boundaries of the ISDRA itself, catering exclusively to dune visitors. Any reduction in visitation is likely to adversely impact these local businesses.

Using data gathered from the U.S. Census Bureau (IEC 2004) and Dun and Bradstreet (IEC 2004) on OHV-related small businesses in Imperial and Yuma Counties, this analysis concluded that it is unlikely that the impacts presented in the economic analysis would have a significant effect on small businesses at the national or county level. However, to the extent that changes in OHV-related expenditures are concentrated in specific geographic locations (*e.g.*, Brawley and El Centro in California and Yuma, Arizona), any change in user access to the ISDRA could have a significant impact on area small businesses.

Based on the consultation history for *Astragalus magdalenae* var. *peirsonii*, we do not anticipate that the designation of critical habitat will result in increased compliance costs for small entities. The business activities of these small entities and their effects on *A. magdalenae* var. *peirsonii* or its critical habitat have not directly triggered a section 7 consultation with the Service. The designation of critical habitat does not, therefore, create a new cost for the small entities to comply with the Act. Instead, the designation only impacts Federal agencies that conduct, fund, or permit activities that may affect critical habitat for *A. magdalenae* var. *peirsonii*. Moreover, none of the small entities have been applicants with a Federal agency for a section 7 consultation with the Service. Thus, we conclude that the designation of critical habitat is not likely to result in a significant impact to this group of small entities.

In addition, we completed an informal section 7 consultation with BLM on the potential effects to *Astragalus magdalenae* var. *peirsonii* of a private company filming a movie on Federal lands within the Algodones Dunes. Given the relatively small number of consultations related to filmmaking activities on Federal lands within the Algodones Dunes, we anticipate that the designation of critical habitat is not likely to have a significant impact on this group of small entities.

In summary, we have considered whether this designation would result in a significant economic impact on a substantial number of small entities and find that it would not. This rule would result in project modifications only when proposed activities with a Federal nexus would destroy or adversely modify critical habitat. While this may occur, it is not expected to occur frequently enough to affect a substantial number of small entities. Even if a small entity is affected, we do not expect it to result in a significant economic impact, as the measures included in reasonable and prudent alternatives must be economically feasible and consistent with the proposed action. The kinds of measures we anticipate we would recommend can usually be implemented at low cost. Therefore, we are certifying that the designation of critical habitat for *Astragalus magdalenae* var. *peirsonii* will not have a significant economic impact on a substantial number of small entities, and a regulatory flexibility analysis is not required.

Small Business Regulatory Enforcement Fairness Act (5 U.S.C. 804(2))

Under the Small Business Regulatory Enforcement Fairness Act (5 U.S.C. 804(2)), this rule is not a major rule. We do not foresee or anticipate that BLM would close any Management Areas as a result of the designation of critical habitat. Nothing in the designation of critical habitat creates any obligation for BLM to close any Management Area. If no closures were to take place, the lower bound regional economic impact would be zero. If all of the critical habitat areas within the ISDRA were closed to OHV use, the regional economy would experience an upper bound reduction in output of \$2.8 million (2003 dollars) and a potential loss in employment of 60 jobs. The percentage of small business sales generated (from Motor Vehicle and Parts Dealers, Food and Beverage Stores, and Food Services and Drinking Places businesses) by upper bound OHV-related expenditures in the BLM management areas included in the final designation are 0.01% for Mammoth, 0.00% for North Algodones Wilderness and 0.33% for Ogilby. Thus, less than one percent of total OHV-related expenditures in the two county area are linked to the usage for these three areas.

Based on the effects identified in the economic analysis, we believe that this critical habitat designation will not have an effect on the economy of \$100 million or more, will not cause a major increase in costs or prices for consumers, and will not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises. Please refer to the final economic analysis for a discussion of the potential effects of the critical habitat designation.

Executive Order 13211

On May 18, 2001, the President issued an Executive Order (E.O. 13211) on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. None of these criteria are relevant to this analysis. Based on the economic analysis, the likelihood of any energy-related activity occurring within designated critical habitat is minimal for the following reasons: (1) Utility corridors exist outside of the designated critical habitat; (2) areas likely to experience development have been excluded from the designation; (3) these activities likely would be discouraged

by BLM in the designated critical habitat for potentially interfering with the recreational function of the ISDRA; and (4) the construction and maintenance of projects (such as utility lines) away from current roads, canals, and railways and through the central, more remote portions of the dunes is likely to be economically infeasible. This final rule to designate critical habitat for the *Astragalus magdalenae* var. *peirsonii* is not a significant energy action and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501), the Service makes the following findings:

(a) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute or regulation that would impose an enforceable duty upon State, local, tribal governments, or the private sector and includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)-(7). "Federal intergovernmental mandate" includes a regulation that "would impose an enforceable duty upon State, local, or tribal governments" with two exceptions. It excludes "a condition of federal assistance." It also excludes "a duty arising from participation in a voluntary Federal program," unless the regulation "relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority," if the provision would "increase the stringency of conditions of assistance" or "place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding" and the State, local, or tribal governments "lack authority" to adjust accordingly. (At the time of enactment, these entitlement programs were: Medicaid; AFDC work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement.) "Federal private sector mandate" includes a regulation that "would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance; or (ii) a duty arising from participation in a voluntary Federal program."

The designation of critical habitat does not impose a legally binding duty

on non-Federal government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities who receive Federal funding, assistance, permits or otherwise require approval or authorization from a Federal agency for an action may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply; nor would critical habitat shift the costs of the large entitlement programs listed above on to State governments.

(b) The economic analysis that was prepared in support of this rulemaking fully assesses the effects of this designation on Federal, State, local, and tribal governments, and to the private sector, and indicates that this rule will not significantly or uniquely affect small governments. As such, Small Government Agency Plan is not required.

Takings

In accordance with Executive Order 12630 (“Government Actions and Interference with Constitutionally Protected Private Property Rights,” March 18, 1988; 53 FR 8859), we have analyzed the potential takings implications of designating critical habitat for *Astragalus magdalenae* var. *peirsonii*. This assessment concludes that this final rule does not pose significant takings implications.

Federalism

In accordance with Executive Order 13132, this rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of the Interior policies, we requested information from and coordinated development of this critical habitat designation with appropriate State resource agencies in California. The designation of critical habitat in areas currently occupied by the *Astragalus magdalenae* var. *peirsonii* imposes no additional significant restrictions beyond those currently in place and, therefore, has little incremental impact on State and local governments and their activities.

The designation of critical habitat may have some benefit to the State and local resource agencies in that the areas essential to the conservation of this species are more clearly defined, and the primary constituent elements of the habitat necessary to the conservation of this species are specifically identified. While this definition and identification does not alter where and what federally sponsored activities may occur, it may assist local governments in long-range planning (rather than waiting for case-by-case section 7 consultations to occur).

Civil Justice Reform

In accordance with Executive Order 12988, the Department of the Interior’s Office of the Solicitor has determined that this rule does not unduly burden the judicial system and does meet the requirements of sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of the Endangered Species Act. The rule uses standard property descriptions and identifies the primary constituent elements within the designated areas to assist the public in understanding the habitat needs of the *Astragalus magdalenae* var. *peirsonii*.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This final rule does not contain new or revised information collection for which OMB approval is required under the Paperwork Reduction Act. Information collections associated with certain Act permits are covered by an existing OMB approval and are assigned clearance No. 1018-0094, Forms 3-200-55 and 3-200-56, with an expiration date of July 31, 2004. Detailed information for Act documentation appears at 50 CFR part 17. This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act

We have determined that an Environmental Assessment and/or an Environmental Impact Statement as defined by the National Environmental Policy Act of 1969 need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act, as amended. A notice outlining our reason for this determination was published in the **Federal Register** on October 25, 1983

(48 FR 49244). This final rule does not constitute a major Federal action significantly affecting the quality of the human environment.

Government-to-Government Relationship With Tribes

In accordance with the President’s memorandum of April 29, 1994, “Government-to-Government Relations with Native American Tribal Governments” (59 FR 22951), Executive Order 13175, and the Department of the Interior’s manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. We have determined that there are no Tribal lands essential for the conservation of *Astragalus magdalenae* var. *peirsonii*. Therefore, no tribal lands have been designated as critical habitat for *A. m. var. peirsonii*.

References Cited

A complete list of all references cited in this final rule is available upon request from the Carlsbad Fish and Wildlife Office (see **ADDRESSES** section).

Author

The primary authors of this rule are staff of the Carlsbad Fish and Wildlife Office, U.S. Fish and Wildlife Service (see **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

■ Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations as set forth below:

PART 17—[AMENDED]

- 1. The authority citation for part 17 continues to read as follows:
Authority: 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500; unless otherwise noted.
- 2. In § 17.12(h) revise the entry for “*Astragalus magdalenae* var. *peirsonii*,” under “FLOWERING PLANTS,” to read as follows:

§ 17.12 Endangered and threatened plants.
 * * * * *
 (h) * * *

Species		Historic range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
Flowering Plants							
* <i>Astragalus magdalenae</i> var. <i>peirsonii</i> .	* Peirson's milk-vetch	* U.S.A. (CA)	* Fabaceae—Pea	* T	* 647	* 17.96(a)	* NA
*	*	*	*	*	*	*	*

■ 3. In § 17.96, amend paragraph (a) by adding an entry for *Astragalus magdalenae* var. *peirsonii* in alphabetical order under Family Fabaceae to read as follows:

§ 17.96 Critical habitat—plants.

- (a) * * *
Family Fabaceae: *Astragalus magdalenae* var. *peirsonii* (Peirson's Milk-Vetch)
 - (1) Critical habitat subunits are depicted for Algodones Dunes in Imperial County, California, on the maps below.
 - (2) The primary constituent elements of critical habitat for *Astragalus magdalenae* var. *peirsonii* consist of intact, active sand dune systems (defined as sand areas that are subject to sand-moving winds that result in natural expanses of bowls, swales, and slopes and support the co-adapted psammophytic scrub plant and invertebrate communities) within the existing range of *Astragalus magdalenae* var. *peirsonii* that are characterized by:
 - (i) Substrates of the Rositas soil series, specifically Rositas fine sands of sufficient depth to promote *Astragalus magdalenae* var. *peirsonii* and discourage creosote bush scrub;
 - (ii) Wind-formed slopes of less than 30 degrees, but generally less than 20 degrees; and
 - (iii) The associated co-adapted psammophytic scrub plant community (e.g., *Croton wigginsii*, *Eriogonum deserticola*, *Helianthus niveus* ssp. *tephrodes*, *Palafoxia arida* var. *gigantea*, *Pholisma sonoreae*, and *Tiquilia plicata*) that supports the white-faced digger bee (*Habropoda* spp.) (the primary pollinator of *Astragalus magdalenae* var. *peirsonii*).
 - (3) Critical habitat does not include existing features and structures, such as buildings, roads, aqueducts, railroads, airport runways and buildings, other paved areas, lawns, and other urban landscaped areas not containing one or more of the primary constituent elements.
 - (4) Critical Habitat Map Subunits.
 - (i) Map Unit 1: Algodones Dunes, Imperial County, California. From USGS

1:24,000 quadrangle maps Acolita, Amos, Cactus, Glamis NW, Grays Well, and Tortuga, California.

(A) Subunit 1A: lands bounded by the following UTM NAD27 coordinates (E,N): 657200, 3668800; 658100, 3668800; 658100, 3668500; 658000, 3668000; 658100, 3668000; 658100, 3667800; 658200, 3667600; 658300, 3667600; 658300, 3667300; 658400, 3667300; 658400, 3667100; 658500, 3667100; 658500, 3666800; 658600, 3666800; 658600, 3666600; 658700, 3666600; 658700, 3666500; 658800, 3666500; 658800, 3666400; 658900, 3666400; 658900, 3666300; 659000, 3666300; 659000, 3666200; 659100, 3666200; 659100, 3666100; 659300, 3666100; 659300, 3666000; 659400, 3666000; 659400, 3665900; 659500, 3665900; 659500, 3665900; 659500, 3665800; 659600, 3665800; 659600, 3665700; 659700, 3665700; 659700, 3665600; 659800, 3665600; 659800, 3665500; 660000, 3665500; 660000, 3665400; 660100, 3665400; 660100, 3665300; 660200, 3665300; 660300, 3665200; 660300, 3665200; 660300, 3665100; 660500, 3665100; 660500, 3665000; 660700, 3665000; 660700, 3664900; 660800, 3664900; 660800, 3664700; 660900, 3664700; 660900, 3664500; 661000, 3664500; 661000, 3664400; 661200, 3664400; 661200, 3664300; 661400, 3664300; 661400, 3664100; 661500, 3664100; 661500, 3663900; 661600, 3663900; 661600, 3663700; 661700, 3663700; 661700, 3663600; 661800, 3663600; 662000, 3663600; 662000, 3663500; 662000, 3663500; 662000, 3663400; 662100, 3663400; 662100, 3663200; 662200, 3663200; 662200, 3662900; 662300, 3662900; 662300, 3662700; 662400, 3662700; 662400, 3662500; 662500, 3662500; 662500, 3662400; 662600, 3662400; 662600, 3662300; 662700, 3662300; 662700, 3662200; 662800, 3662200; 662800, 3662100; 664000, 3662100; 664000, 3662000; 664400, 3662000; 664400, 3662000; 664600, 3662000; 664600, 3661900; 664600, 3661800; 664800, 3661800; 664800, 3661500; 664900, 3661500; 664900, 3661300; 665000, 3661300; 665000, 3661100; 665100, 3661100; 665100, 3661000; 665200, 3661000; 665500, 3661000; 665900, 3661000; 665900, 3660000; 665900, 3660000; 665900, 3659800; 666100, 3659800; 666100, 3659700; 666200, 3659700; 666200, 3659600; 666300, 3659600; 666300, 3659500; 666400, 3659500; 666400, 3659300; 666500, 3659300; 666500, 3658800; 666600, 3658800; 666600, 3658500; 666700, 3658500; 666700, 3658200; 666800, 3658200; 666800, 3658100; 666900, 3658100; 666900, 3658000; 667100, 3658000; 667100, 3657900; 667400, 3657900; 667400, 3657800; 667600, 3657800; 667600, 3657800; 667600, 3657700; 667800, 3657700; 667800, 3657500; 667900, 3657500; 667900, 3657400; 668000, 3657400; 668000, 3657200; 668100, 3657200; 668100, 3657100; 668300, 3657100; 668300, 3657000; 668500, 3657000; 668500, 3656900; 668600, 3656900; 668600, 3656800; 668700, 3656800; 668700, 3656700; 668800, 3656700; 668800, 3656600; 669000, 3656600; 669000, 3656700; 669300, 3656700; 669300, 3656800; 669700, 3656800; 669700, 3656800; 669700, 3656700; 669800, 3656700; 669800, 3656600; 669900, 3656600; 669900, 3656500; 670100, 3656500; 670100, 3656400; 670300, 3656400; 670300, 3656300; 671100, 3656300; 671100, 3656200; 671300, 3656200; 671300, 3656200; 671300, 3656100; 671400, 3656100; 671400, 3656000; 671500, 3656000; 671500, 3655900; 671600, 3655900; 671600, 3655700; 671700, 3655700; 671700, 3655600; 671800, 3655600; 671800, 3655500; 671900, 3655500; 672000, 3655500; 672000, 3655400; 672000, 3655400; 672000, 3655200; 672100, 3655200; 672100, 3654900; 672200, 3654900; 672200, 3654500; 672300, 3654500; 672300, 3654300; 672400, 3654300; 672400, 3654100; 672900, 3654100; 672900, 3654200; 673700, 3654200; 673700, 3654100; 674100, 3654100; 674100, 3654000; 674200, 3654000; 674200, 3653900; 674300, 3653900; 674300, 3653700; 674400, 3653700; 674400, 3652300; 674300, 3652100; 674400, 3652100; 674400, 3651500; 674500, 3651500; 674500, 3651400; 674600, 3651400; 674600, 3651300; 674700, 3651300;

3651300; 674700, 3651200; 674400, 3651200; thence south to the Imperial Sand Dunes Recreational Area (ISDRA), North Algodones Dunes Wilderness Management Area (NADWMA) boundary at UTM NAD27 x-coordinate 674400; thence west following the ISDRA, NADWMA boundary to UTM NAD27 y-coordinate 3651100; thence west following UTM NAD27 coordinates 674200, 3651100; thence south to the ISDRA, NADWMA boundary at UTM NAD27 x-coordinate 674200; thence west following the ISDRA, NADWMA boundary to UTM NAD27 y-coordinate 3651000; thence west following UTM NAD27 coordinates 673900, 3651000; 673900, 3650900; 673800, 3650900; thence south to the ISDRA, NADWMA boundary at UTM NAD27 x-coordinate 673800; thence west following the ISDRA, NADWMA boundary to UTM NAD27 y-coordinate 3650800; thence west following UTM NAD27 coordinates 673600, 3650800; thence south to the ISDRA, NADWMA boundary at UTM NAD27 x-coordinate 673600; thence west following the ISDRA, NADWMA boundary to UTM NAD27 y-coordinate 3650700; thence west following UTM NAD27 coordinates 673400, 3650700; thence south to the ISDRA, NADWMA boundary at UTM NAD27 x-coordinate 673400; thence west following the ISDRA, NADWMA boundary to UTM NAD27 y-coordinate 3650600; thence west following UTM NAD27 coordinates 673100, 3650600; thence south to the ISDRA, NADWMA boundary at UTM NAD27 x-coordinate 673100; thence west following the ISDRA, NADWMA boundary to UTM NAD27 y-coordinate 3650500; thence west following UTM NAD27 coordinates 672500, 3650500; 672500, 3650400; 671900, 3650400; thence south to the ISDRA, NADWMA boundary at UTM NAD27 x-coordinate 671900; thence west following the ISDRA, NADWMA boundary to UTM NAD27 y-coordinate 3650300; thence west following UTM NAD27 coordinates 671500, 3650300; thence south to the ISDRA, NADWMA boundary at UTM NAD27 x-coordinate 671500; thence west following the ISDRA, NADWMA boundary to UTM NAD27 y-coordinate 3650200; thence west following UTM NAD27 coordinates 671200, 3650200; thence south to the ISDRA, NADWMA boundary at UTM NAD27 x-coordinate 671200; thence west following the ISDRA, NADWMA boundary to UTM NAD27 y-coordinate 3650100; thence west following UTM NAD27 coordinates 670900, 3650100; thence south to the ISDRA, NADWMA boundary at UTM NAD27 x-coordinate 670900; thence west following the ISDRA, NADWMA boundary to UTM NAD27 y-coordinate 3650000; thence west following UTM NAD27 coordinates 670600, 3650000; 670600, 3649900; 670300, 3649900; 670300, 3649800; 670100, 3649800; thence south to the ISDRA, NADWMA boundary at UTM NAD27 x-coordinate 670100; thence west following the ISDRA, NADWMA boundary to UTM NAD27 y-coordinate 3649700; thence west following UTM NAD27 coordinates 669900, 3649700; thence south to the ISDRA, NADWMA at UTM NAD27 x-coordinate 669900; thence west along the ISDRA, NADWMA boundary to UTM NAD27 y-coordinate 3649600; thence due west to the ISDRA, NADWMA boundary at UTM NAD27 y-coordinate 3649600; thence northwest following the ISDRA, NADWMA boundary to UTM NAD27 x-coordinate 669100; thence north following UTM NAD27 coordinates 669100, 3650500; 669000, 3650500; 669000, 3650900; 669100, 3650900; 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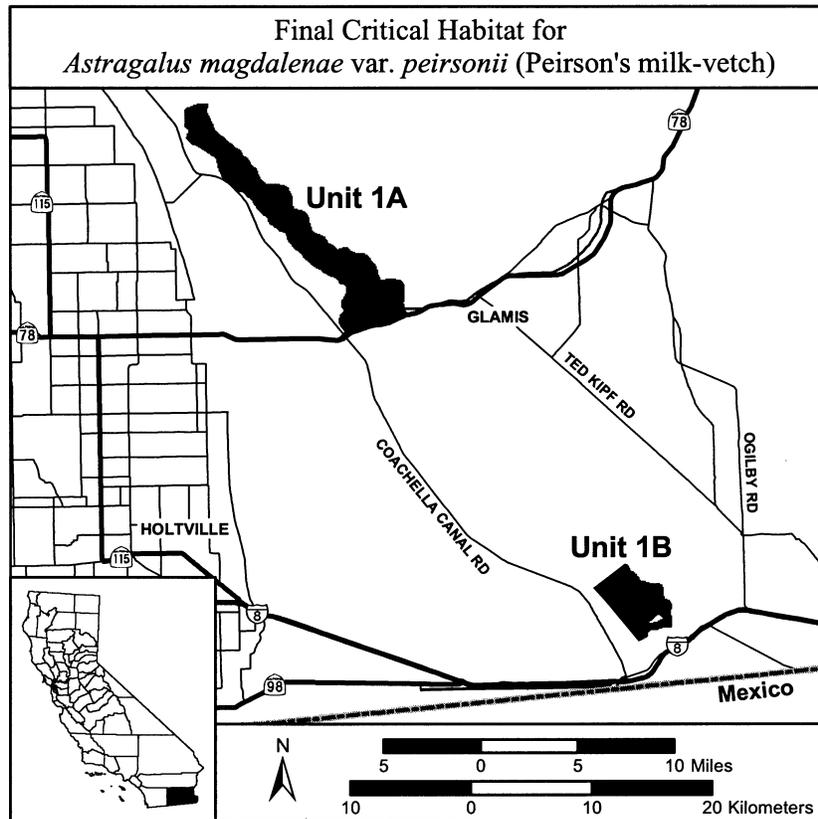
656400, 3666700; 656400, 3666800;
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 656700, 3668500; 656700, 3668600;
 656900, 3668600; 656900, 3668700;
 657200, 3668700; returning to UTM
 NAD27 coordinates 657200, 3668800.

(B) Subunit 1B: starting at the ISDRA,
 Ogilby Management Area (OMA)
 boundary at UTM NAD27 x-coordinate
 692700; thence south to UTM NAD27
 coordinates 692700, 3630400; thence
 south following UTM NAD27
 coordinates 692900, 3630400; 692900,
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 3624300; 694300, 3624300; 694300,
 3624200; 694100, 3624200; 694100,
 3624100; 693900, 3624100; thence south
 to the ISDRA, OMA boundary at UTM
 NAD27 x-coordinate 693900, thence

north and east following the ISDRA,
 OMA boundary returning to UTM
 NAD27 x-coordinate 692700; excluding
 lands bounded by the following UTM
 NAD27 coordinates 695500, 3626300;
 695600, 3626300; 695600, 3626200;
 695700, 3626200; 695700, 3626100;
 695800, 3626100; 695800, 3626000;
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 695100, 3625900; 695100, 3626000;
 695200, 3626000; 695200, 3626100;
 695300, 3626100; 695300, 3626200;
 695500, 3626200; 695500, 3626300.

(ii) Map of *Astragalus magdalenae*
 var. *peirsonii* Critical Habitat Unit
 follows:



* * * * *

Dated: July 28, 2004.
Craig Manson,
 Assistant Secretary for Fish and Wildlife and
 Parks.
 [FR Doc. 04-17575 Filed 8-3-04; 8:45 am]
 BILLING CODE 4310-55-P