

requires conferences on Federal actions that are likely to result in the destruction or adverse modification of proposed critical habitat. Aside from the added protection that may be provided under section 7, the Act does not provide other forms of protection to lands designated as critical habitat.

Because consultation under section 7 of the Act does not apply to activities on private or other non-Federal lands that do not involve a Federal nexus, critical habitat designation would not afford any additional regulatory protections under the Act against such activities.

In order to be included in a critical habitat designation, the habitat must first be "essential to the conservation of the species." Critical habitat designations identify, to the extent known, and using the best scientific and commercial data available, habitat areas that provide essential life cycle needs of the species (*i.e.*, areas on which are found the primary constituent elements, as defined at 50 CFR 424.12(b)).

Section 3(5)(C) of the Act states that not all areas that can be occupied by a species should be designated as critical habitat except in those circumstances determined by the Secretary. Our regulations (50 CFR 424.12(e)) also state that, "The Secretary shall designate as critical habitat areas outside the geographic area presently occupied by the species only when a designation limited to its present range would be inadequate to ensure the conservation of the species."

Section 4(b)(2) of the Act requires that we take into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. We may exclude areas from critical habitat designation when the benefits of exclusion outweigh the benefits of including the areas within critical habitat, provided the exclusion will not result in extinction of the species.

Our Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), provides criteria, establishes procedures, and provides guidance to ensure that our decisions represent the best scientific and commercial data available. This policy requires our biologists, to the extent consistent with the Act and with the use of the best scientific and commercial data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat. When determining which areas are critical habitat, a primary source of information should, at a minimum, be the listing package for the species.

Additional information may be obtained from a recovery plan, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, or other unpublished materials.

Section 4 of the Act requires that we designate critical habitat based on what we know at the time of designation. Habitat is often dynamic, and populations may move from one area to another over time. Furthermore, we recognize that 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, it is important to understand that critical habitat designations do not signal that habitat outside the designation is unimportant or may not also be required for recovery. Areas outside the 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 Act's section 7(a)(2) jeopardy standard and the section 9 prohibitions, as determined on the basis of the best available information at the time of the action. Federally funded or assisted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, 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.

#### Methods

As required by the Act and regulations (section 4(b)(2) and 50 CFR 424.12), we used the best scientific and commercial data available to determine areas that contain the physical and biological features that are essential for the conservation of *Polygonum hickmanii*. This information included data from the CNDDDB 2000, geologic and soil survey maps (USGS 1989, SCS 1979), geologic information contained in project documents (Impact Sciences 1998, 2000), recent biological surveys and reports, our multi-species recovery plan for the Santa Cruz Mountains that provided conservation recommendations for *Polygonum hickmanii*, additional information provided by interested parties, and discussions with botanical experts. We also conducted multiple site visits to the

two locations that are being designated as critical habitat.

In addition to the above, we also reviewed the goals for *Polygonum hickmanii* included in our multi-species recovery plan, which addresses this species and other taxa from the Santa Cruz Mountains (Service 1998). The plan included the following conservation recommendations: (1) Secure and protect habitat for *Polygonum hickmanii* through habitat conservation plans (HCPs), conservation easements, or acquisition; (2) manage habitat for the species through such actions as controlling nonnative species, reducing impacts from recreation, restoring degraded sites, and monitoring regularly; (3) learn more about the life history, ecology, and population dynamics of the species that will contribute to developing appropriate management strategies; (4) increase public awareness of the species and its associated habitats through various outreach efforts; and (5) use an adaptive management approach to revise management strategies over time. Critical habitat alone is not expected to recover the species, and it is only one of many strategies that can assist in such recovery.

Determining the specific areas that this taxon occupies is difficult for several reasons: (1) The distribution of *Polygonum hickmanii* appears to be more closely tied to the presence of the Santa Cruz mudstone and Purisima soils than to specific plant communities; the plant communities may undergo changes over time, which, due to the degree of cover that is provided by that vegetation type, may or may not favor the growth of *P. hickmanii* above ground; (2) the way the current distribution of *P. hickmanii* is mapped can be variable, depending on the scale at which patches of individuals are recorded (*e.g.*, many small patches versus one large patch); and (3) depending on the climate and other annual variations in habitat conditions, the extent of the distributions may either shrink and temporarily disappear, or, if there is a residual seedbank present, enlarge and cover a more extensive area. Because it is logistically difficult to determine how extensive the seed bank is at any particular site and because above-ground plants may or may not be present in all patches within a site every year, it would be difficult to quantify what proportion of each critical habitat unit may actually be occupied by *P. hickmanii*. Therefore, within the grassland habitat, patches of unoccupied habitat are interspersed with patches of occupied habitat; the inclusion of unoccupied habitat in our