

habitat also identifies areas that may require special management considerations or protection, and may help provide protection to areas where significant threats to the species have been identified, by helping people to avoid causing accidental damage to such areas.

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 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 unless the Secretary determines that all such areas are essential to the conservation of the species. Our regulations (50 CFR 424.12(e)) also state that, "The Secretary shall designate as critical habitat areas outside the geographical 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 of the Act requires that we designate critical habitat based on what we know at the time of designation. Habitat is often dynamic and species may move from one area to another over time. We recognize that our designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the conservation of the species. For these reasons, critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery. Areas that support newly discovered populations in the future, but are outside the critical habitat designation, will continue to be subject to conservation actions implemented by Federal agencies under section 7(a)(1) of the Act, and to the regulatory protections afforded by the 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.

Within the geographical area occupied by the species, we will designate only areas currently known to be essential. Essential areas should already have the features and habitat characteristics that are necessary to sustain the species. We will not speculate about what areas might be found to be essential if better information became available, or what areas may become essential over time. If the information available at the time of designation does not show that an area provides essential life cycle needs of the species, then the area should not be included in the critical habitat designation. Within the geographical area occupied by the species, we will attempt to avoid designating areas that do not now have the primary constituent elements, as defined at 50 CFR 424.12(b), which provide essential life cycle needs of the species. However, we may be restricted by our minimum mapping unit or mapping scale.

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. It 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, and discussions with experts.

#### Methods

As required by section 4(b)(2) of the Act and regulations at 50 CFR 424.12, we used the best scientific information available to determine areas that contain the physical and biological features that are essential for the conservation of *Delphinium bakeri* and *D. luteum*. We reviewed available information that pertains to the habitat requirements of these species, including data from research and survey observations; regional Geographic Information System (GIS) coverages (*e.g.*, soils, known

locations, vegetation, land ownership); information from herbarium collections such as CalFlora (<http://www.calflora.org>); data from CNDDDB (2001); and data collected from project-specific and other miscellaneous reports submitted to us. This included information from our final rule listing *D. bakeri* and *D. luteum* as endangered (65 FR 4156), the CNDDDB (2001), soil survey maps (SCS 1972, 1985), certified soil GIS layers for Marin County, geologic formation maps, 1993 digital orthophotoquarterquads, and discussions with botanical experts who have worked closely with these plant species. We also conducted site visits at one historical occurrence of *D. bakeri* and five historical occurrences of *D. luteum* as well as one extant occurrence of *D. bakeri* and three extant occurrences of *D. luteum* (to the extent we could visit the habitat without going onto private land).

#### Mapping

We delineated the critical habitat units by using data layers in a GIS format with all the known *Delphinium bakeri* and *D. luteum* occurrences from the CNDDDB (2001) and other sources (D. Amme, *in litt.*, 2002, pers. comm., 2002). We created additional data layers to reflect vegetation types using aerial photographs, GIS data for Marin soils (Natural Resource Conservation Service 2001), and recent development using satellite imagery (CNES/SPOT Image Corporation 2001). We created an additional data layer by digitizing Kneeland soils data for Sonoma County from a U.S. Geological Survey (USGS) soil survey (1972). These data layers were laid over a base of USGS 3.75' digital orthophotographic quarter quadrangle images.

In designating critical habitat, we made an effort to avoid developed areas such as houses, intensive agricultural areas (such as row crops, vineyards, and orchards), and lands unlikely to contain the primary constituent elements for *Delphinium bakeri* or *D. luteum*. However, we did not map critical habitat in sufficient detail to exclude all developed areas. Developed areas within the boundaries of the mapped units, such as buildings, lawns, roads, parking lots, and other paved areas will not contain one or more of the primary constituent elements. Federal actions limited to these areas, therefore, would not trigger consultation relative to critical habitat under section 7 of the Act unless they affect the species, or affect primary constituent elements in adjacent critical habitat.