

for a particular species (*i.e.*, not containing the primary constituent elements) were avoided. The resulting shape files for each species were then considered to define all suitable habitat on the island, including occupied and unoccupied habitat.

These shape files of suitable habitat were further evaluated. Several factors were used to delineate the proposed critical habitat units from these land areas. We reviewed the recovery objectives as described above and in recovery plans for each of the species to determine if the number of populations and population size requirements needed for conservation would be available within the suitable habitat units identified as containing the appropriate primary constituent elements for each species. If more than the area needed for the number of recovery populations was identified as potentially suitable, only those areas within the least disturbed suitable habitat were designated as proposed critical habitat. A population for this purpose is defined as a discrete aggregation of individuals located a sufficient distance from a neighboring aggregation such that the two are not affected by the same small-scale events and are not believed to be consistently cross-pollinated. In the absence of more specific information indicating the appropriate distance to assure limited cross-pollination, we are using a distance of 1,000 m (3,280 ft) based on our review of current literature on gene flow (Barret and Kohn 1991; Fenster and Dudash 1994; Havens 1998; Schierup and Christiansen 1996). The resulting critical habitat units were further refined by using satellite imagery and parcel data to eliminate areas that did not contain the appropriate vegetation or associated native plant species, as well as features such as cultivated agriculture fields, housing developments, and other areas that are unlikely to contribute to the conservation of one or more of the 32 plant species for which critical habitat was proposed on March 4, 2002. Geographic features (*e.g.*, ridge lines, valleys, streams, coastlines, *etc.*) or manmade features (*e.g.*, roads or obvious land use) that created an obvious boundary for a unit were used as unit area boundaries.

Following publication of the proposed critical habitat rules for 255 Hawaiian plants (67 FR 3940, 67 FR 9806, 67 FR 15856, 67 FR 16492, 67 FR 34522, 67 FR 36968, 67 FR 37108), we reevaluated proposed critical habitat, State-wide, for each of the multi-island species using the recovery guidelines (8 to 10 populations with a minimum of 100

mature, reproducing individuals per population for long-lived perennial species; 300 mature, reproducing individuals per population for short-lived perennial species; and 500 mature, reproducing individuals per population for annual species) to determine if we had inadvertently proposed for designation too much or not enough habitat to meet the essential recovery goals of 8 to 10 populations per species distributed among the islands of the species' known historic range (HINHP Database 2000, 2001; Wagner *et al.* 1990, 1999). For each multi-island species, we then further evaluated areas of the proposed critical habitat for the existing quality of the primary constituent elements (*i.e.*, intact native plant communities, predominance of associated native plants versus nonnative plants) and potential as a recovery area. We selected adequate area for our recovery goals of 8 to 10 populations distributed among the islands of each species' historical range. Of the proposed critical habitat for a species, areas that did not meet these criteria and that may provide habitat for populations above the recovery goal of 8 to 10, were determined not essential for the conservation of the species and were excluded from the final designation.

For the species endemic to Lanai, we modified the boundaries of proposed critical habitat using additional information from botanical experts and comments on the proposed rule. We excluded areas that do not contain one or more of the primary constituent elements or were not essential for the conservation of the species because: (1) The area is highly degraded and may not be restorable; (2) the area has some of the primary constituent elements but there are at least eight other places for the species that have more primary constituent elements or are less degraded or are already undergoing restoration or are within a partnership, Natural Area Reserve, TNCH preserve, or refuge; or (3) the threats to the species are uncontrollable in this area. In addition, some areas were excluded under section 4(b)(2) of the Act for economic or other reasons (See "Exclusions Under Section 4(b)(2)"). The specific modifications are described above in the "Summary of Changes from the Revised Proposed Rule." The boundaries of the final critical habitat units are described by their UTM's.

Within the critical habitat boundaries, section 7 consultation is generally necessary and adverse modification could occur only if the primary constituent elements are affected. Therefore, not all activities within

critical habitat would trigger an adverse modification conclusion. In selecting areas of designated critical habitat, we made an effort to avoid developed areas, such as towns and other similar lands, that are unlikely to contribute to the conservation of the three species. However, the minimum mapping unit that we used to approximate our delineation of critical habitat for these species did not allow us to exclude all such developed areas from the maps. In addition, existing manmade features and structures within the boundaries of the mapped unit, such as buildings; roads; aqueducts and other water system features—including, but not limited to, pumping stations, irrigation ditches, pipelines, siphons, tunnels, water tanks, gaging stations, intakes, and wells; telecommunications towers and associated structures and equipment; electrical power transmission lines and associated rights-of-way; radars; telemetry antennas; missile launch sites; arboreta and gardens; heiau (indigenous places of worship or shrines); airports; other paved areas; and other rural residential landscaped areas do not contain one or more of the primary constituent elements and are therefore excluded under the terms of this regulation. Federal actions limited to those areas would not trigger a section 7 consultation unless they affect the species or primary constituent elements in adjacent critical habitat.

In summary, for these species we utilized the approved recovery plan guidance to identify appropriately sized land units containing essential occupied and unoccupied habitat. Based on the best available information, we believe these areas constitute the habitat necessary on Lanai to provide for the recovery of *Bidens micrantha* ssp. *kalealaha*, *Portulaca sclerocarpa*, and *Tetramolopium remyi*.

#### Managed Lands

Currently occupied and historically known sites containing one or more of the primary constituent elements considered essential to the conservation of these 32 plant species were examined to determine if additional special management considerations or protection are required above those currently provided. We reviewed all available management information on these plants at these sites, including published reports and surveys; annual performance and progress reports; management plans; grants; memoranda of understanding and cooperative agreements; DOFAW planning documents; internal letters and memos; biological assessments and environmental impact statements; and