Acanthomintha ilicifolia transplants at Quail Gardens was attributed primarily to rabbit predation (Don Miller, Quail Gardens, pers. comm. 1992). Herbivory by rabbits has also been identified as a threat to populations of *Monardella linoides* ssp. *viminea* in San Clemente Park (John Rieger, biologist, California Department of Transportation, pers. comm. 1992).

D. The inadequacy of existing regulatory mechanisms. Existing regulatory mechanisms that could provide some protection for these taxa include: (1) the Federal Endangered Species Act in cases where these taxa occur in habitat occupied by a listed species; (2) conservation provisions under the Federal Clean Water Act; (3) listing under the California Endangered Species Act; (4) the California Environmental Quality Act; (4) implementation of conservation plans pursuant to the California Natural Community Conservation Planning program; (5) land acquisition and management by Federal, State, or local agencies or by private groups and organizations; (6) local laws and regulations; and (7) enforcement of Mexican laws.

The coastal California gnatcatcher (Polioptila californica californica) is listed as a threatened species under the Act, and occurs in some of the areas occupied by these four plant taxa. However, the legal authority to protect the gnatcatcher does not extend to candidate species. For example, the City of San Diego has recently approved plans for a large-scale development project that will result in significant impacts to the California gnatcatcher and coastal sage scrub. No mitigation for impacts to Hemizonia conjugens has been recommended by the project proponent (Ellen Berryman, Service biologist, pers. comm. 1994) Currently, the Service is working with local fire management agencies in San Diego County on a cooperative agreement that would allow for incidental take of the California gnatcatcher within 30 m (100 ft) of existing development. If implemented, this agreement may result in additional impacts to several of the taxa here proposed (John Lovio, Service biologist, pers. comm. 1995).

Conservation agreements with other Federal agencies may reduce the decline of some species to the point at which listing as threatened or endangered would not be appropriate. However, conservation agreements with other Federal agencies would not appreciably benefit most of the taxa in this rule. Two of the four taxa (Dudleya stolonifera and Hemizonia conjugens) do not occur on Federal lands, and only a small fraction

of the populations of *Acanthomintha ilicifolia* occur on Federal lands (two of 14 populations). It is unlikely that a Conservation Agreement with the Forest Service on these populations would significantly affect the decline of the species. About one-half of the extant *Monardella linoides* ssp. *viminea* populations occur on private land and the distribution of this taxon, frequently characterized by small populations, is extremely restricted. A conservation agreement with the Navy would not reduce the decline of this taxon over a significant portion of its range.

Monardella linoides ssp. viminea could potentially be affected by projects requiring a permit from the Army Corps of Engineers under section 404 of the Clean Water Act. Although the objective of the Clean Water Act is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (Pub. L. 92-500), which includes navigable and isolated waters, headwaters, and adjacent wetlands, there are no specific provisions that adequately address the need to conserve candidate species such as those considered herein. Candidate species receive no special consideration under section 404 of the Clean Water Act.

The California Fish and Game Commission has listed Acanthomintha ilicifolia, Hemizonia conjugens, and Monardella linoides ssp. viminea as endangered and *Dudleya stolonifera* as threatened under the Native Plant Protection Act (chapter 10 section 1900 et seg. of the Fish and Game Code) and California Endangered Species Act (chapter 1.5 section 2050 et seq.). Though both statutes prohibit the "take" of State-listed plants (sections 1908 and 2080), State law exempts the taking of such plants via habitat modification or land use change by a landowner. After the Department notifies a land owner that a State-listed plant grows on his or her property, State law requires only that the landowner notify the agency "at least 10 days in advance of changing the land use to allow salvage of such plants" (chapter 10 section 1913). Although *H. conjugens* is listed as endangered by the State, at least two large-scale development projects have recently been approved by the City of San Diego that will have significant, unmitigated impacts on this species and its associated grassland/coastal sage scrub habitat (Ellen Berryman, pers. comm. 1994).

The majority of the known populations of *Acanthomintha ilicifolia, Dudleya stolonifera,* and *Hemizonia conjugens* occur on privately-owned land. Local and county zoning designations are subject to change and

may not adequately consider the needs of sensitive species in the establishment of open space areas. The few existing resource protection ordinances are subject to interpretation, and compliance is not required in cases where findings of overriding social and economic considerations are made. In many cases, land-use planning decisions are made on the basis of environmental review documents prepared as a requirement of the California Environmental Quality Act (CEQA) or the National Environmental Policy Act. These documents have not adequately addressed potential impacts to the four taxa or offered sufficient compensation for losses that continue to contribute to net loss of habitat. As an example, impacts to biological resources associated with two large-scale residential development projects (approximately 98 hectares (ha) (244 acres (ac)) and 266 ha (665 ac)) in the vicinity of Otay Mesa, occupied in part by *H. conjugens*, are considered to be significant even after all mitigation measures are implemented. Nonetheless, statements of overriding considerations were developed, and both projects were recently approved by the San Diego City Council (Ellen Berryman, pers. comm. 1994).

Transplantation and relocation projects are frequently used to compensate for the loss of rare plant species under CEQA. Hall (1987) and Fiedler (1991) document several attempts at transplanting Acanthomintha ilicifolia, Hemizonia conjugens, and Monardella linoides ssp. viminea. In one transplantation project for A. ilicifolia, maintenance and monitoring was scheduled for a period of 5 years. Subsequently, all records of the project were lost and the new property owner claimed no responsibility for the project. This site was destroyed by trash dumping and off-road vehicle use (Hall 1987). At least six of the eight transplant populations of this species are either rapidly declining or have been extirpated, largely as a result of weed invasion (Fred Sproul, Mitch Beauchamp, Robert Taylor, botanical consultants, pers. comm. 1992). Although two of the transplanted A. ilicifolia populations (Sabre Springs and San Pasqual) are somewhat stable, they are not likely to survive when weeding is discontinued (Robert Taylor, pers. comm. 1992). One year after 45 individuals of *M. linoides* ssp. *viminea* were transplanted by the California Department of Transportation, only four had survived (Hall 1987). Of the 53 transplantation, relocation, or reintroduction projects reviewed by