

requirements, as described above, it is not subject to RFA.

*G. Submission to Congress and the General Accounting Office*

Under 5 U.S.C. 801(a)(1)(A), added by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), EPA submitted, by the date of publication of this rule, a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives and the Comptroller General of the General Accounting Office. This rule is not a "major rule" as defined by 5 U.S.C. 804(2), as amended.

*H. Paperwork Reduction Act*

This rule does not contain any information collection requirements which require OMB approval under the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*)

*I. Judicial Review*

Under CAA section 307(b)(1), a petition to review today's action may be filed in the Court of Appeals for the District of Columbia within 60 days of November 20, 1997.

Dated: November 14, 1997.

**Carol M. Browner,**  
Administrator.

[FR Doc. 97-30520 Filed 11-19-97; 8:45 am]

BILLING CODE 6560-50-P

**ENVIRONMENTAL PROTECTION  
AGENCY**

**40 CFR Part 81**

**Clean Air Act Promulgation of  
Extension of Attainment Date for the  
Portland, Maine, Moderate Ozone  
Nonattainment Area**

*CFR Correction*

In Title 40 of the Code of Federal Regulations, parts 81 to 85, revised as of July 1, 1997, make the following correction:

On page 180, in § 81.320, in the table under the heading "Maine—Ozone", footnote 2 is corrected to read "Attainment date extended to November 15, 1997."

BILLING CODE 1505-01-D

**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**50 CFR Part 17**

**RIN 1018-AD14**

**Endangered and Threatened Wildlife  
and Plants; Determination of  
Endangered Status for Two Tidal  
Marsh Plants—*Cirsium hydrophilum*  
var. *hydrophilum* (Suisun Thistle) and  
*Cordylanthus mollis* ssp. *mollis* (Soft  
Bird's-Beak) From the San Francisco  
Bay Area of California**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Final rule.

**SUMMARY:** The U.S. Fish and Wildlife Service (Service) determines endangered status pursuant to the Endangered Species Act of 1973, as amended (Act), for two plants—*Cirsium hydrophilum* var. *hydrophilum* (Suisun thistle) and *Cordylanthus mollis* ssp. *mollis* (soft bird's-beak). These species are restricted to salt and brackish tidal marshes within the San Francisco Bay area in northern California. Habitat conversion, water pollution, changes in salinity, indirect effects of urbanization, mosquito abatement activities (including off-road vehicle use), competition with non-native vegetation, insect predation, erosion, and other human-caused actions threaten these two species. This rule implements the Federal protection and recovery provisions afforded by the Act for these plants.

**EFFECTIVE DATE:** December 22, 1997.

**ADDRESSES:** The complete file for this rule is available for inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, 3310 El Camino, Suite 130, Sacramento, California 95821-6340.

**FOR FURTHER INFORMATION CONTACT:** Kirsten Tarp (telephone 916/979-2120) and Matthew D. Vandenberg (telephone 916/979-2752), staff biologists at the Sacramento Fish and Wildlife Office (see **ADDRESSES** section); FAX 916/979-2723.

**SUPPLEMENTARY INFORMATION:**

**Background**

*Cirsium hydrophilum* var. *hydrophilum* (Suisun thistle) and *Cordylanthus mollis* ssp. *mollis* (soft bird's-beak) occur in salt and brackish tidal marshes fringing San Pablo and Suisun Bays in the San Francisco Bay area of northern California. Since 1850, this habitat has been drastically

reduced. Approximately 15 percent, or 12,142 hectares (ha) (30,000 acres), of the historical tidal marshland habitat within the San Francisco Bay area remains (Dedrick 1989).

With the exception of the San Francisco Bay area, the mountainous coast of California and the narrow continental shelf provide few areas that are suitable for tidal marsh development (MacDonald 1990). Coastal salt marshes are found along sheltered margins of shallow bays, estuaries, or lagoons, in low lying areas that are subject to periodic inundation by salt water. Brackish marshes occur at the interior margins of coastal bays, estuaries, or lagoons where fresh water sources (streams and rivers) enter salt marshes. Brackish marshes are similar to salt marshes but differ in the degree of water and soil salinity. Brackish marshes are less saline than salt marshes. Salinity levels vary with time, tides, and the amount of freshwater inflow. Vegetation communities in salt and brackish marshes often occur in distinct zones, depending on the frequency and length of tidal flooding. *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* are restricted to a narrow tidal band, typically in higher elevational zones within larger tidal marshes that have fully developed tidal channel networks. These plants usually do not occur in smaller fringe tidal marshes that are generally less than 100 meters (m) (300 feet (ft)) in width, or in non-tidal areas.

**Discussion of the Two Species**

Asa Gray (1888) originally described *Cirsium hydrophilum* var. *hydrophilum* as *Cnicus breweri* var. *vaseyi*. Subsequent authors treated the taxon as *Carduus hydrophilus* (Greene 1892), *Cirsium hydrophilum* (Jepson 1901), and *Cirsium vaseyi* var. *hydrophilum* (Jepson 1925). John Thomas Howell (1959) concluded that Jepson's *Cirsium hydrophilum* and *Cirsium vaseyi* of the Mt. Tamalpais area in Marin County, California are varieties of a single species, *Cirsium hydrophilum*. According to the rules for botanical nomenclature, when a new variety is described in a species not previously divided into intraspecific taxa, an autonym (automatically created name) is designated. In this case, the autonym is *Cirsium hydrophilum* var. *hydrophilum*.

*Cirsium hydrophilum* var. *hydrophilum* is a perennial herb in the aster family (Asteraceae). Slender, erect stems 1.0 to 1.5 m (3.0 to 4.5 ft) tall are well branched above. The spiny leaves are deeply lobed. The lower leaves have ear-like basal lobes; the upper leaves are

reduced to narrow strips with strongly spine-toothed margins. Pale lavender-rose flower heads, 2.0 to 2.5 centimeters (cm) (1 inch (in.)) long, occur singly or in loose groups. The bracts of the flower heads have a distinct green, glutinous ridge on the back that distinguishes *Cirsium hydrophilum* var. *hydrophilum* from other *Cirsium* species in the area. *Cirsium hydrophilum* var. *hydrophilum* flowers between July and September.

*Cirsium hydrophilum* var. *hydrophilum* is restricted to Suisun Marsh in Solano County. In 1975, the plant was reported as possibly extinct because it had not been collected for about 15 years. Extensive surveys found the thistle at two locations within Suisun Marsh (Brenda Grewell, California Department of Water Resources (CDWR), pers. comm. 1993), however, unoccupied suitable habitat for *Cirsium hydrophilum* var. *hydrophilum* exists outside these sites in the upper reaches of tidal marshes in Solano County. Collectively, the occurrences of *Cirsium hydrophilum* var. *hydrophilum* total a few thousand individuals (Brenda Grewell, pers. comm. 1993) occupying a total area of less than 1 acre. *Cirsium hydrophilum* var. *hydrophilum* grows in the upper reaches of tidal marshes associated with *Typha angustifolia* (narrow-leaf cattail), *Scirpus americanus* (Olney's bulrush), *Juncus balticus* (Baltic rush), and *Distichlis spicata* (saltgrass). One population is found on State land under the jurisdiction of the California Department of Fish and Game (CDFG) and another population is on Solano County Farmland and Open Space Foundation lands. No active management is occurring at either location (Neil Havlik, Solano County Farmland and Open Space Foundation, pers. comm. 1993; Ann Howald, CDFG, pers. comm. 1993). Habitat conversion and fragmentation, indirect effects from urban development, increased salinity, projects that alter the natural tidal regime, mosquito abatement activities, and competition with non-native plants, threaten this taxon. The highly restricted distribution of *Cirsium hydrophilum* var. *hydrophilum* increases its susceptibility to catastrophic events such as pest outbreaks, severe drought, oil spills, or other natural or human caused disasters.

Charles Wright collected the type specimen of *Cordylanthus mollis* ssp. *mollis* in November 1855, on Mare Island in San Francisco Bay. Asa Gray (1868) published the original description, using the name *Cordylanthus mollis*. Later botanists treated the taxon as *Adenostegia mollis* (Greene 1891) and *Chloropyron molle*

(Heller 1907). Tsan-Iang Chuang and Larry Heckard (1973) treated *Cordylanthus mollis* and *Cordylanthus hispidus* as subspecies of a single species (*Cordylanthus mollis*) with *Cordylanthus mollis* ssp. *mollis* recognized as the autonym.

*Cordylanthus mollis* ssp. *mollis* is an annual herb of the snapdragon family (Scrophulariaceae) that grows 25 to 40 cm (10 to 16 in.) tall. It is sparingly branched from the middle and above. *Cordylanthus mollis* ssp. *mollis* is a hemiparasite (i.e., partially parasitic) that extracts water and nutrients by attaching enlarged root structures to the roots of other plants (Chuang and Heckard 1971). The foliage is grayish-green (often tinged a deep red) and hairy. The oblong to lance-shaped leaves are 1.0 to 2.5 cm (0.4 to 1.0 in.) long, the lower leaves entire and the upper with one to three pairs of leaf lobes. The inflorescence consists of spikes 5 to 15 cm (2 to 6 in.) long. A floral bract with two to three pairs of lobes occurs immediately below each inconspicuous white or yellowish-white flower. The flowers have only two functional stamens. The narrow ovoid seed capsule is 6 to 10 millimeters (mm) (0.2 to 0.4 in.) long and bears 20 to 30 dark brown seeds. Flowering occurs between July and September. *Cordylanthus mollis* ssp. *mollis* is distinguished from another *Cordylanthus* found nearby (*C. maritimus* ssp. *palustris*) by its two functional stamens (*C. maritimus* ssp. *palustris* has four) and by its bracts with two to three pairs of lateral lobes (*C. maritimus* ssp. *palustris* has a pair of short teeth on the floral bracts). *Cordylanthus mollis* ssp. *mollis* is closely related to *Cordylanthus mollis* ssp. *hispidus* and can be differentiated most consistently from *Cordylanthus mollis* ssp. *hispidus* on spike length and seed size.

*Cordylanthus mollis* ssp. *mollis* is found predominantly in the upper reaches of salt grass-pickleweed marshes at or near the limits of tidal action (Stromberg 1986). It is associated with *Salicornia virginica* (Virginia glasswort), *Distichlis spicata*, *Jaumea carnosa* (fleshy jaumea), *Frankenia salina* (alkali heath), and *Triglochin maritima* (arrow-grass) (Stromberg 1986). There have been 21 reported locations of *Cordylanthus mollis* ssp. *mollis*. Two sites, Denverton and Berkeley, were erroneous locations. Five sites (Mare Island, Martinez, Burdell Station, Bentley Wharf, and Antioch Bridge) have been extirpated by habitat loss or modification. Five other sites surveyed in 1993 no longer had the plants, although some potential habitat

still existed. Nine sites are presumed to still exist (California Natural Diversity Data Base (CNDDDB) 1996; Jake Ruygt, California Native Plant Society (CNPS), *in litt.* 1996). The type locality at Mare Island for *Cordylanthus mollis* ssp. *mollis* was destroyed by development and is now a dredge disposal site (CNDDDB 1994). A second occurrence, last seen in 1981 near Martinez in Contra Costa and Solano Counties, was dredged, filled, diked, and is now a marina (Stromberg 1986, CNDDDB 1994).

The remaining nine occurrences are widely scattered throughout coastal salt or brackish tidal marshes fringing San Pablo and Suisun Bays, in Contra Costa, Napa, and Solano Counties (CNDDDB 1994; Brenda Grewell, *in litt.* 1993; Jake Ruygt, *in litt.* 1996). Three sites, Pt. Pinole, Rush Ranch, and Joice Island Bridge, have very limited habitat and cover less than 0.4 ha (1 acre) each. The population at Fagan Slough covers approximately 1.2 ha (3 acres). The two largest populations are located at Hill Slough and at Concord Naval Weapons Station, each covering approximately 4 ha (10 acres). The entire distribution of *Cordylanthus mollis* ssp. *mollis* currently is restricted to about 12 ha (31 acres) of occupied habitat (Jake Ruygt, 1994 and *in litt.* 1996). The total number of individuals reported among populations varies from 1 at the smallest site to 150,000 plants at the largest site. Of the remaining nine sites, one (McAvoy) has only 23 plants. Most sites have between 1,000 and 6,000 individuals (Jake Ruygt 1994; CNDDDB 1996). Individual populations fluctuate in size from year to year, as is typical of annual plants. *Cordylanthus mollis* ssp. *mollis* occurs primarily on private or non-Federal land; the second largest occurrence is found on Department of Defense (U.S. Navy) land. Habitat conversion and fragmentation, water pollution, increases in salinity of tidal marshes due to upstream withdrawals of fresh water, projects that alter the natural tidal regime, indirect effects of urbanization, mosquito abatement activities (including off-road vehicle use), erosion, competition with non-native vegetation, insect predation, and other random events threaten the remaining occurrences of *Cordylanthus mollis* ssp. *mollis*.

The CDWR has conducted surveys for *Cordylanthus mollis* ssp. *mollis* and *Cirsium hydrophilum* var. *hydrophilum*, and these surveys have not been limited to known historic populations. The CDWR has surveyed potential habitat throughout Suisun Marsh, searched portions of the potential habitat along the Contra Costa shoreline, has assisted with searches downstream of Suisun

Bay in the Carquinez Strait and Napa marshes, and has surveyed diked wetlands managed for waterfowl. Despite these surveys, the CDWR has found no new populations since their original data submittal in 1993 (Randall Brown *in litt.* 1996).

#### Previous Federal Action

Federal government actions on the two plants began as a result of section 12 of the Act, which directed the Secretary of the Smithsonian Institution to prepare a report on those plants considered to be endangered, threatened, or extinct in the United States. This report, designated as House Document No. 94-51, was presented to Congress on January 9, 1975, and listed *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* as possibly extinct. The Service published a notice on July 1, 1975 (40 FR 27823), of its acceptance of the report of the Smithsonian Institution as a petition within the context of section 4(c)(2) (petition provisions now are found in section 4(b)(3) of the Act) and its intention thereby to review the status of the plant taxa named therein. The above two taxa were included in the July 1, 1975, notice. On June 16, 1976, the Service published a proposal (41 FR 24523) to determine approximately 1,700 vascular plant species to be endangered species pursuant to section 4 of the Act. The list of 1,700 plant taxa was assembled on the basis of comments and data received by the Smithsonian Institution and the Service in response to House Document No. 94-51 and the July 1, 1975, **Federal Register** publication. *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* were included in the June 16, 1976, **Federal Register** proposal.

General comments received on the 1976 proposal were summarized in an April 26, 1978, notice (43 FR 17909). The Act's Amendments of 1978 required that all proposals over 2 years old be withdrawn. A 1-year grace period was given to those proposals already more than 2 years old. In a December 10, 1979, notice (44 FR 70796), the Service withdrew the June 16, 1976, proposal, along with four other proposals that had expired.

The Service published an updated Notice of Review for plants on December 15, 1980 (45 FR 82480). The two plant taxa were listed as category 1 candidates for Federal listing in this document. Category 1 taxa were those that the Service has on file substantial information on biological vulnerability and threats to support preparation of listing proposals. On November 28,

1983, the Service published a supplement to the Notice of Review (48 FR 53640); there were no changes to these taxa in this supplement.

The plant notice was revised again on September 27, 1985 (50 FR 39526), February 21, 1990 (55 FR 6184), and September 30, 1993 (58 FR 51144). In these three notices *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* were included as category 1 candidate species. On February 28, 1996, the Service published a Notice of Review in the **Federal Register** (61 FR 7596) that discontinued the use of candidate categories and considered the former category 1 candidates as simply "candidates" for listing purposes.

Section 4(b)(3)(B) of the Act requires the Secretary to make certain findings on petitions within 12 months of their receipt. Section 2(b)(1) of the 1982 amendments further requires that all petitions pending on October 13, 1982, be treated as having been newly submitted on that date. This was the case for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*, because the 1975 Smithsonian report had been accepted as a petition. On October 13, 1982, the Service found that the petitioned listing of these species was warranted, but precluded by other pending listing actions, in accordance with section 4(b)(3)(B)(iii) of the Act; notification of this finding was published on January 20, 1984 (49 FR 2485). The finding was reviewed annually from October 1983 through 1994, pursuant to section 4(b)(3)(C)(i) of the Act.

A proposal to list *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* as endangered was published on June 12, 1995. The proposal was based on information supplied by reports to the California Diversity Database, and observations and reports by numerous botanists.

The processing of this final listing rule conforms with the Service's final listing priority guidance published on December 5, 1996 (61 FR 64475). The guidance clarifies the order in which the Service will process rulemakings following two related events, the lifting on April 26, 1996, of the moratorium on final listings imposed on April 10, 1995 (Public Law 104-6) and the restoration of significant funding for listing through passage of the omnibus budget reconciliation law on April 26, 1996 following severe funding constraints imposed by a number of continuing resolutions between November 1995 and April 1996. The guidance calls for giving highest priority to handling

emergency situations (Tier 1) and second highest priority (Tier 2) to resolving the listing status of outstanding proposed listings. Tier 3 includes the processing of new proposed listings for species facing high magnitude threats, and processing administrative findings on petitions. Tier 4 includes the processing of critical habitat designations. This final rule falls under Tier 2.

This rule has been updated to reflect any changes in distribution, status and threats since the effective date of the listing moratorium, and to incorporate information obtained through the public comment period. This additional information was not of a nature to alter the Service's decision to list the species.

#### Summary of Comments and Recommendations

In the proposed rule published June 12, 1995 in the **Federal Register** (60 FR 31000), all interested parties were requested to submit factual reports or information that might contribute to the development of a final rule. The public comment period closed on August 21, 1995. Appropriate State agencies, county and city governments, Federal agencies, scientific organizations, and other interested parties were contacted and requested to comment. A public hearing request was received within 45 days of publication of the proposal from Paul Campos, General Counsel for the Building Industry Association. Because a Congressional moratorium on the Service's activities associated with final listing actions was in effect from April 1995 to April 1996, scheduling of the hearing was delayed. The Service subsequently scheduled and held the public hearing on Wednesday, October 2, 1996, from 6:00 p.m. to 8:00 p.m. at the Holiday Inn, 1350 Holiday Lane, Fairfield, California. To accommodate the hearing, the public comment period was reopened on September 6, 1996, and closed October 15, 1996. Notice of the public hearing and reopening of the public comment period was published in the **Federal Register** September 6, 1996 (61 FR 47105) and in newspapers including *The Napa Register* on September 18, 1996, *The San Francisco Chronicle* on September 18, 1996, *The Contra Costa Times* on September 18, 1996, and *The Fairfield Daily Republic* on September 19, 1996.

During the comment period, the Service received comments (letters and oral testimony) from a total of 14 people. Some people submitted more than one comment to the Service. Six commenters supported the listing, one commenter opposed the listing, and seven commenters are viewed as

neutral. One commenter submitted comments late. Among the six commenters supporting the listing are the California Native Plant Society, the University of California at Davis, and the Napa-Solano Chapter of the Audubon Society. Three commenters provided detailed information on locations, population sizes, and threats to the species. These data have been incorporated into this rule. Two commenters stated that they were researching the threats to the species and hoped that the Service would be available to work with them in the creation of protection and/or mitigation plans as necessary. One commenter representing the Solano County Mosquito Abatement District stated they are willing to work with the Service to avoid actions that may be damaging to endangered plants and habitat. Opposing comments and other comments questioning the proposed rule have been organized into specific issues. These issues and the Service's response to each are summarized as follows:

**Issue 1:** One commenter stated that the Service should make the precise locations of the two tidal plants available to landowners and the counties in which the species occur. This information would help the landowners ensure that activities they conduct would not harm the two species, if the species exist on their property.

**Service Response:** In the proposed rule, the Service stated that these plants are restricted to salt or brackish tidal marsh within Solano, Contra Costa, and Napa counties. Individuals owning land in these counties who believe that their actions or activities may result in harm to either of these two species should feel free to provide the Service with detailed maps of their lands prior to conducting these activities so that the Service can provide technical assistance on the exact locations of these species. The Service will make every effort to notify landowners and seek cooperation with surveys or other conservation efforts. The complete file for this rule is available for public inspection, and does contain general information about where the species occurs. The Service is always willing to assist the public in matters aimed at protecting sensitive species.

**Issue 2:** One commenter was concerned about the listing of *Cordylanthus mollis* ssp. *mollis*, although they did not formally object to the listing. Specifically, the commenter questioned what the legal protection means to the subspecies when it is similar in appearance to *Cordylanthus*

*mollis* ssp. *hispidus* and the two cannot readily be distinguished in the field and there is the possible occurrence of hybridization.

**Service Response:** The taxonomy of the subspecies has been clarified by Chuang and Heckard (1971), with *Cordylanthus mollis* ssp. *mollis* and *Cordylanthus mollis* ssp. *hispidus* separated primarily by habitat, spike length, and seed size; and secondarily by branching patterns and hirsuteness (i.e., coarse stiff hairs). As with many subspecies, though material may be difficult to identify in the field, *Cordylanthus mollis* ssp. *mollis* and *Cordylanthus mollis* ssp. *hispidus* are recognized as distinct subspecies (Chuang and Heckard 1971, Chuang and Heckard 1993). As the term "species" is defined in the Act, the Service can apply the protections of the Act to any species or subspecies of fish, wildlife, or plants, that meets the definition of endangered or threatened. The Act does not attempt to define "species" in biological terms, and thus allows the term to be applied according to the best current biological information and understanding of evolution, speciation, and genetics.

**Issue 3:** One commenter questioned whether mosquito abatement activities had led to a decline in *Cordylanthus mollis* ssp. *mollis*.

**Service Response:** As documented in Factor "E" below, mosquito abatement activities, resulting from increased urbanization, have been observed to adversely impact individual *Cordylanthus mollis* ssp. *mollis* plants.

**Issue 4:** One commenter stated that there were considerably more populations of *Cordylanthus mollis* ssp. *mollis* in Contra Costa County than reported in the proposed rule, which according to the commenter included only the East Navy marsh and Swanton's or Hasting's Slough Marsh.

**Service Response:** Populations reported in the proposed rule as occurring in Contra Costa County included Pt. Pinole, McAvoy Boat Harbor, Hasting's Slough, and Concord Naval Weapons Station. As mentioned in the "Discussion of the Two Species" section, populations of annual plants tend to fluctuate from year to year. The Service views the additional "populations" of *Cordylanthus mollis* ssp. *mollis* located at East Navy South, Swanton's SW, Swanton's NW, and Pt. Pinole to be extensions of existing populations that were included in the proposed rule, and not an expansion of the overall range of this species.

**Issue 5:** One commenter questioned the adequacy of many aspects of the data used in the proposed rule. This

commenter stated that listing at this time is premature and also was concerned that the best available knowledge, including information not yet in print, be used in the rule.

**Service Response:** In accordance with the "Interagency Cooperative Policy on Information Standards under the Endangered Species Act", published in the **Federal Register** on July 1, 1994 (59 FR 34271), the Service impartially reviews all scientific and other information to ensure that any information used to promulgate a regulation to add a species to the list of threatened and endangered species is reliable, credible, and represents the best scientific and commercial data available. The Service used information received from the California Natural Diversity Data Base, knowledgeable botanists, and from studies specifically directed at gathering the information on distribution and threats. Information from botanical collections of these plants that, in some cases, dates from the 1880's, was utilized in the preparation of the proposed rule. The Service received information from Federal, State, and local agencies, and consulted professional botanists during the preparation of the proposed rule. Destruction and loss of habitat and extirpation of populations of these two plants from a variety of causes have been documented. The Service sought comments on the proposed rule from Federal, State, and county entities, species experts, and other individuals. All substantive new data received during the public comment period have been incorporated into the final rule. Specific justification for listing the two plant species is summarized in Factors "A" through "E."

**Issue 6:** One commenter stated that we do not know that full tidal action is needed for *Cordylanthus mollis* ssp. *mollis*.

**Service Response:** All known populations of *Cordylanthus mollis* ssp. *mollis* occur in higher elevational zones within larger tidal marshes that have fully developed tidal channel networks. In sites where this taxa has been extirpated, full tidal action has often been lost. Extensive surveys for *Cordylanthus mollis* ssp. *mollis* have been conducted in tidal and diked marsh lands, and it has not been located in any diked marshes.

**Issue 7:** One commenter stated that the plants occur in tidal marshes and not in diked areas and, therefore, their lands do not constitute critical habitat for the species.

**Service Response:** The designation of critical habitat for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus*

*mollis* ssp. *mollis* is not prudent. Refer to the Critical Habitat section of this final rule for a detailed discussion of the Service's decision.

#### Peer Review

In accordance with Service peer review policy (July 1, 1994; 59 FR 34270), the Service sent copies of the proposed rule to three independent botanists and tidal marsh specialists who are professors. The Service solicited their review of the proposed rule and pertinent scientific and commercial information substantive to the listing determination. The reviewers did not respond to the Service.

#### Summary of Factors Affecting the Species

Section 4 of the Act and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal lists of endangered and threatened species. A species may be determined to be endangered or threatened due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Cirsium hydrophilum* (Greene) Jepson var. *hydrophilum* (Suisun thistle) and *Cordylanthus mollis* Gray ssp. *mollis* (soft bird's-beak) are as follows:

##### A. The Present or Threatened Destruction, Modification, or Curtailment of Their Habitat or Range

Habitat for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* has been severely reduced by past human activities. Hydraulic mining, diking and filling involved in agricultural land conversion and urbanization, waste disposal, port and industrial development, railroad construction, dredging, salt production, and sedimentation have drastically reduced the amount of tidal marsh in California (Atwater 1979, MacDonald 1990, Association of Bay Area Governments (ABAG) 1991). Changes in freshwater inflow, pollution, habitat conversion, habitat fragmentation, and alteration of the natural tidal regime continue to threaten the habitat of both species.

In San Pablo Bay, historical tidal wetlands have been diked and converted to agricultural lands that were farmed for oat hay. In addition, approximately 4,050 ha (10,000 acres) also were converted to salt ponds. In Suisun Bay, most of the 28,780 ha (71,100 acres) of tidal marshes that existed in 1850 were converted originally to agricultural land, and then to diked seasonal wetlands used for

waterfowl management. Only 3,780 ha (9,340 acres) within Suisun Marsh remain as tidal marsh (Dedrick 1989). Most of the remaining tidal marshes are backed by steep levees, allowing for little or no transitional wetland habitat—the habitat required by *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*.

The change of freshwater inflow to the marsh has modified the habitat for these two taxa. Agricultural and municipal uses have diverted over 50 percent of the historical annual inflow of freshwater from the Suisun Marsh and Delta (ABAG 1991). During the past 40 years, significant portions of the tidally-influenced brackish marsh within Suisun Bay have become more saline due to decreased freshwater flows (Pavlik 1992). Increased salt levels within the Suisun Marsh may threaten *Cordylanthus mollis* ssp. *mollis* and *Cirsium hydrophilum* var. *hydrophilum*. Salt stress causes decreased plant growth and lower reproduction. When salinity levels remain high during extended drought conditions, population viability of these species may be greatly impaired to the extent they lose their ability to maintain themselves as components of a healthy wetlands ecosystem (Pavlik 1992). When salinity increases in the root zone, salt stress reduces plant abundance and causes shifts in plant distribution. This has occurred even in common salt-tolerant plants (Pavlik 1992). *Cordylanthus mollis* ssp. *mollis* and *Cirsium hydrophilum* var. *hydrophilum* may be especially vulnerable to increased salt levels due to the limited number of individuals and their restricted distribution. Additionally, decreased levels of salt within the Suisun Marsh may threaten *Cordylanthus mollis* ssp. *mollis* by affecting its host plants. *Cordylanthus mollis* ssp. *mollis* is a hemi-root parasite that completes its life cycle by parasitizing the roots of perennial halophytes. *Salicornia virginica* and *Distichlis spicata* are halophyte plant associates and likely hosts of *Cordylanthus mollis* ssp. *mollis*, although specifics of the host relationship have yet to be determined. During the wet and above normal water years of 1995 and 1996, these two plant associates have decreased in abundance in the areas where the *Cordylanthus mollis* ssp. *mollis* is found. Therefore, it is important to maintain the long term natural variability of hydrologic conditions in order to ensure the survival of *Cordylanthus mollis* ssp. *mollis* and the species upon which it may depend (R. Brown, *in litt.* 1996).

The two plant species also face threats from habitat fragmentation associated with commercial and residential development, road construction, and ongoing effects of historical fragmentation by activities associated with clearing for agriculture, railroad construction, dredging, and conversion to salt ponds. These activities have split habitat into smaller, more isolated units. Habitat fragmentation may alter the physical environment, changing the microclimate, quantity of water, and nutrients required by remnant vegetation (Saunders *et al.* 1991). In addition, a higher proportion of the area of these fragmented natural areas is subject to the influences from external factors (e.g., additional development, off-road vehicular use, numerous other human influences, and competition with non-native vegetation) that disrupt natural ecosystem processes. Further effects of habitat fragmentation on the two plant species are discussed in Factor "E."

Projects that convert habitat from tidal marsh to diked seasonal wetlands potentially threaten both *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*. Within Suisun Marsh, the conversion of tidal marsh to diked seasonal wetlands, a practice common in the development of waterfowl managements areas, is a potential threat for both species (Randall Brown, *in litt.* 1993). The CDFG's planned conversion of 40 ha (100 acres) of *Distichlis spicata* (an associated species for both *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*) in Hill Slough as enhancement of habitat for wildlife (CDWR, *in litt.* 1996), will further diminish the amount of suitable habitat for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*.

Habitat conversion for planned future urbanization threatens both species. In the Association of Bay Area Governments' analysis of the San Francisco Bay Estuary, over 4,856 ha (12,000 acres) of wetlands in the Bay will be subject to moderate to high development uses over the next 12 years (ABAG 1991). Highway projects within the San Francisco Bay Estuary during the next 20 years alone are expected to fill 146 ha (362 acres) of wetlands (ABAG 1991). Some of the highway projects will threaten *Cordylanthus mollis* ssp. *mollis* by eliminating habitat into which existing populations of this plant could expand. Widening of California Highway 37 will impact wetlands that occur along the Napa River (ABAG 1991) and may adversely affect habitat for *Cordylanthus mollis*

ssp. *mollis*. Proposed widening of Highway 12 near the Suisun Marsh would threaten the habitats of *Cordylanthus mollis* ssp. *mollis* and *Cirsium hydrophilum* var. *hydrophilum* (Brenda Grewell, pers. comm. 1993), either due to habitat fragmentation as discussed above or by runoff.

Projects that alter the natural tidal regime may also threaten both taxa. Although the California Department of Water Resources is no longer pursuing the Western Suisun Marsh Salinity Control Project, projects that may alter the salinity regime and flows, are being evaluated under the CalFed Bay-Delta Program. The goals of the program will be to contribute toward recovery of sensitive species rather than to recover the species. The alternatives of the CalFed program have not been identified yet, but could involve habitat modification associated with restoration activities and the construction of various storage and conveyance structures. These actions could subject tidal marsh to altered flows and changes in salinity that could be detrimental to *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*. The restoration plans have not specifically addressed *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*.

#### B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Overutilization currently is not known to be a factor for these two plants. Increased collecting for scientific or horticultural purposes or excessive visits by individuals interested in seeing rare plants could result, however, from increased publicity resulting from publication of this proposal.

#### C. Disease or Predation

The health of one of the largest occurrences of *Cordylanthus mollis* ssp. *mollis* is declining due to insect predation (Brenda Grewell, pers. comm. 1993). Intense insect seed predation has been observed in the population at Joice Island and Hill Slough within Suisun Marsh in Solano County (Randall Brown, *in litt.* 1993). The presence of a thistle weevil (*Rhinocyllus conicus*) in a portion of the *Cirsium hydrophilum* var. *hydrophilum* population was documented in June 1996 by CDWR. The CDWR has collected thistle weevil in *Cirsium hydrophilum* var. *hydrophilum* flower heads, and observed many flower heads with no seeds. The larval stage of this weevil feeds on the seed. *Phyciodes mylitta* caterpillars were collected on a population of *Cirsium hydrophilum* var.

*hydrophilum* in September 1996. These caterpillars have caused significant damage to the rosettes of plants that will flower next year (R. Brown, *in litt.* 1996).

Disease is not known to be a factor for either *Cirsium hydrophilum* var. *hydrophilum* or *Cordylanthus mollis* ssp. *mollis*.

#### D. The Inadequacy of Existing Regulatory Mechanisms

Section 404 of the Clean Water Act represents the primary Federal law that affords some protection for these two plants since they occur in wetlands. However, the Clean Water Act, by itself does not provide adequate protection for either *Cirsium hydrophilum* var. *hydrophilum* or *Cordylanthus mollis* ssp. *mollis*. The Army Corps of Engineers (Corps) is the Federal agency responsible for administering the section 404 program. Under section 404, nationwide permits may be issued for certain activities that are considered to have minimal impacts, including oil spill cleanup, minor dredging, maintenance dredging of existing basins, some road crossings, and minor bank stabilization (December 13, 1996; 61 FR 65874-65922). However, the Corps seldom withholds authorization of an activity under nationwide permits unless the existence of a listed threatened or endangered species would be jeopardized, regardless of the significance of the affected wetland resources. Activities that do not qualify for authorization under a nationwide permit, including projects that would result in more than minimal adverse environmental effects, either individually or cumulatively, may be authorized by an individual or regional general permit, which are typically subject to more extensive review. Regardless of the type of permit deemed necessary under section 404, rare species such as *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* may receive no special consideration with regard to conservation or protection unless they are listed under the Act.

The Service, as part of the section 404 review process, provides comments to the Corps on nationwide permits and individual permits. The Service's comments are only advisory, although procedures exist for elevating permit review within the agencies when disagreements between the Service and Corps arise concerning the issuance of a permit. In practice, the permitting process for wetland fills and other activity under section 404 are insufficient to protect rare species such as *Cirsium hydrophilum* var.

*hydrophilum* and *Cordylanthus mollis* ssp. *mollis*.

CDFG has formally designated *Cordylanthus mollis* ssp. *mollis* as rare under the California Endangered Species Act (chapter 1.5 sec. 2050 *et seq.* of the California Fish and Game Code and Title 14, California Code of Regulations 670.2). This designation by the State of California requires individuals to obtain a permit or an agreement with the CDFG to possess or "take" a listed species. Although the "take" of State-listed plants is prohibited (California Native Plant Protection Act, chapter 10 sec. 1908 and California Endangered Species Act, chapter 1.5 sec. 2080), State law exempts the taking of such plants via habitat modification or land use changes by the landowner. After CDFG notifies a landowner that a State-listed plant grows on his or her property, the California Native Plant Protection Act requires only that the landowner notify the agency "at least 10 days in advance of changing the land use to allow salvage of such a plant" (chapter 10 sec. 1913 of the California Fish and Game Code).

The California Environmental Quality Act (CEQA) requires a full disclosure of the potential environmental impacts of proposed projects. CEQA also obligates disclosure of environmental resources within proposed project areas and may enhance opportunities for conservation efforts. However, CEQA does not guarantee that such conservation efforts will be implemented. The public agency with primary authority or jurisdiction over the project is designated as the lead agency, and is responsible for conducting a review of the project and consulting with the other agencies concerned with the resources affected by the project. Section 15065 of the CEQA Guidelines requires a finding of significance if a project has the potential to "reduce the number or restrict the range of a rare or endangered plant or animal." Once significant effects are identified, the lead agency has the option to require mitigation for effects through changes in the project or to decide that overriding considerations make mitigation infeasible. In the latter case, projects may be approved that cause significant environmental damage, such as resulting in the loss of sites supporting State-listed species. Mitigation plans usually involve the transplantation of the plant species to an existing habitat or an artificially created habitat. Following the development of the transplantation plan, the original site is destroyed. Therefore, if the mitigation effort fails, the resource has already been lost.

Protection of listed species through CEQA is, therefore, dependent upon the discretion of the lead agency involved. In addition, revisions to the CEQA guidelines have been proposed that, if made final, may weaken protections for threatened, endangered, and other sensitive species (U.S. Department of the Interior, *in litt.* 1997). Final CEQA guidelines are forthcoming.

In 1977, the State of California enacted the Suisun Marsh Preservation Act (Preservation Act) to protect Suisun Marsh. This legislation established primary and secondary management areas. The secondary management areas were established to provide a buffer against development. In 1982, the Preservation Act was amended to exclude, in the primary management area, land proposed for the Lawlor Ranch development. Exclusion of this land has reduced the buffer between urbanization and Suisun Marsh. The indirect effects of urbanization are discussed further in Factors "A" and "E".

#### *E. Other Natural or Manmade Factors Affecting Their Continued Existence*

Both populations of *Cirsium hydrophilum* var. *hydrophilum* are adversely affected by non-native plants. *Lepidium latifolium* (perennial peppergrass), a rated noxious weed (California Department of Food and Agriculture 1993), has "moved in especially in the last 5 years" (Brenda Grewell, pers. comm. 1993). *Cirsium hydrophilum* var. *hydrophilum* is out-competed by *L. latifolium*.

Hybridization with *Cirsium vulgare* (bull thistle), a non-native, also is a potential threat. *Cirsium vulgare* hybridizes readily with other *Cirsium*. Hybridization with *Cirsium vulgare* was suggested as a possible explanation for the previously presumed extinction of *Cirsium hydrophilum* var. *hydrophilum* (Smith and Berg 1988). *Cordylanthus mollis* ssp. *hispidus* is a species generally associated with more alkaline habitats than tidal marshes where *Cordylanthus mollis* ssp. *mollis* is found. However, hybridization and mixing of traits may be occurring between these two taxa or subspecies as possibly indicated in some voucher species kept in the University of California (Berkeley) and Jepson herbarium reference collections.

Chronic pollution from petroleum products is an ongoing threat to the habitat of both plants within San Pablo Bay and southern Suisun Bay. Oil spills can result in severe and long lasting destruction of salt marsh vegetation. Studies on mangroves, seagrasses, salt marsh grasses, and algae have shown

that petroleum causes death, reduced growth, and impaired reproduction in large plants (Albers 1992). The effects of a petroleum spill to plants depends on several factors including the time of year, the type of petroleum product (crude or refined), and the degree of coverage (Hershner and Moore 1977; Rob Ricker, CDFG, pers. comm. 1993). A plant entirely covered by oil will die. Oil that seeps into sediments can affect the roots or rhizomes of plants as well. Oil spills may also affect plants by decreasing the amount of plant biomass (either above or below ground), or by decreasing the reproductive capacity of the plant (Rob Ricker, pers. comm. 1993).

Four hundred to 800 oil spills occur annually within California (Rob Ricker, pers. comm. 1993). Within northern California, 309 reported spills affecting marine or estuarine habitats within the jurisdiction of the Service's Sacramento Fish and Wildlife Office occurred between March 1992 and March 1993 (Office of Environmental Services (OES) 1992 and 1993). Most of these spills occurred in the San Francisco Bay Estuary.

In 1988, an oil spill in Martinez, California, flowed as far as Suisun Bay. Although these plants are found within the northern part of the Suisun Marsh and may not be threatened directly by an oil spill in San Francisco Bay, the potential for oil spills exists from vessels operating within the marsh, as well as from an accidental spill from railroads that bisect the marsh. Oil spills also are an ever present threat to *Cordylanthus mollis* ssp. *mollis* occurring near Point Pinole (Pat O'Brien, General Manager, East Bay Regional Parks District, *in litt.* 1994).

A hazardous waste clean-up effort resulted in the removal of a portion of the Middle Point *Cordylanthus mollis* ssp. *mollis* population in 1994. This population is found on the Concord Naval Weapons Station Property (Ruygt 1994).

Chronic pollution from point and non-point sources, including heavy metals from industrial discharges, also may threaten the habitat of both plants. It is unknown, however, what effects heavy metals in industrial discharges have on these two taxa. In 1978, 52 municipal treatment facilities and 42 industrial facilities continuously discharged wastewater into San Francisco Bay (Western Ecological Services Company (WESCO) 1986). By 1982, over 200 permits for industrial discharges had been granted (WESCO 1986).

The amounts of heavy metals in the San Francisco Bay Estuary are projected

to increase during the next 10 years. The San Francisco Bay Conservation and Development Commission, Center for Environmental Design Research, and the Greenbelt Alliance (1992) collectively modeled plausible land use changes and their impact to the health of the San Francisco Bay Estuary. Several methods were used to determine the effects of land use change including two future land use models. The model projecting the highest increase in heavy metal was based on a composite of the general plan maps for all of the counties in the estuary. Amounts of heavy metals including lead, nickel, and cadmium were projected to increase under both future land use models in all the watersheds that include habitat for these two plants.

As discussed in Factor "A", habitat fragmentation may alter the physical environment. In addition, habitat fragmentation increases the risks of extinction due to random events. The small, isolated nature of the two populations of *Cirsium hydrophilum* var. *hydrophilum* also makes extinction from random events more likely. Random events such as insect or pest outbreaks, extended drought, oil spills or a combination of several such events, could destroy part of a single population or entire populations. The risk of extirpation due to genetic and demographic problems associated with small populations is a threat to at least the two occurrences of *Cordylanthus mollis* ssp. *mollis* that have fewer than 25 individuals. Additionally, the ongoing harvesting, planting of seed, and attempts at artificially expanding one of the populations in Contra Costa County, that is occurring without proper permits from the State of California, potentially threatens the genetic diversity of *Cordylanthus mollis* ssp. *mollis* (Deborah L. Elliot-Fisk, University of California at Davis, *in litt.* 1996; David Tibor, CNPS, *in litt.* 1996).

Mosquito abatement will increase as a result of urbanization (Brenda Grewell, pers. comm. 1993). Mosquito abatement activities threaten *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*. Within Suisun Marsh, both species grow along or near first order channels and mosquito abatement drainage ditches. Ditch cleaning and dredging, and the chemical spraying of vegetation along these channels or ditches may adversely impact individual plants. Plant populations parallel to these channels have been subjected to damage by vehicles used off established roads during mosquito abatement activities (Randall Brown, *in litt.* 1993).



Foot traffic is a threat to *Cordylanthus mollis* ssp. *mollis*. A trail runs through the occurrence located on East Bay Regional Park's Point Pinole Regional Seashore. Foot traffic also is a potential threat to the largest occurrence of *Cordylanthus mollis* ssp. *mollis* due to the increased urbanization occurring within 0.40 kilometer (0.25 mile). Foot traffic disturbance through *Cordylanthus mollis* ssp. *mollis* can easily damage the shallow and very brittle roots (Stromberg 1986).

Erosion is a threat to *Cordylanthus mollis* ssp. *mollis* located on the Point Pinole Regional Seashore. The main population of *Cordylanthus mollis* ssp. *mollis* is immediately adjacent to a slough that is undergoing bank slumping (Stromberg 1986). Individual plants are threatened by undercutting of the bank and subsequent slumping of the marsh soil into the slough.

Cattle grazing continues on both private and state owned tidal marsh lands adjacent to Hill Slough, and in the privately owned tidal marsh near McAvoy Harbor. Extensive areas of bare ground are now present within the *Cordylanthus mollis* ssp. *mollis* population, decreasing the size of the populations (R. Brown, *in litt.* 1996).

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by these species in determining to finalize this rule. *Cirsium hydrophilum* var. *hydrophilum*, limited to only two populations, is threatened across all of its current range by indirect effects of urbanization, projects that alter the natural tidal regime, vulnerability to extinction due to random events and environmental factors, and competition with non-native vegetation. Urbanization, industrial development, and agricultural land conversion have extirpated or potentially extirpated nearly 45 percent of known occurrences of *Cordylanthus mollis* ssp. *mollis*. *Cordylanthus mollis* ssp. *mollis* is restricted to about 12 ha (31 acres) of habitat. Indirect effects of urbanization including habitat fragmentation and conversion, projects that alter natural tidal regimes, alteration of salinity levels, water pollution, mosquito abatement activities (including off-highway vehicle use), insect predation, erosion, foot traffic, and extirpation due to genetic and demographic problems continue to threaten most occurrences of *Cordylanthus mollis* ssp. *mollis* across its remaining range. Because *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* are in danger of extinction throughout all or a significant part of their respective

ranges, they meet the definition of "endangered" as it is defined in the Act. The preferred action, therefore, is to list *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* as endangered.

Alternatives to this action were considered but not preferred. Not listing *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* or listing these taxa as threatened would not provide adequate protection and would not be consistent with the Act. The Service is not proposing to designate critical habitat for these plants at this time, as discussed below.

#### Critical Habitat

Critical habitat is defined in section 3 of the Act as: (i) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with section 4 of the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management consideration or protection and; (ii) specific areas outside the geographical area occupied by a species at the time it is listed, upon determination that such areas are essential for the conservation of the species. "Conservation" as it is defined in section 3(3) of the Act means the use of all methods and procedures needed to bring the species to the point at which listing under the Act is no longer necessary.

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is listed. Service regulations (50 CFR 424.12(a)(1)) state that designation of critical habitat is not prudent when one or both of the following situations exist—(1) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or (2) such designation of critical habitat would not be beneficial to the species.

The Service finds that designation of critical habitat is not prudent for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* at this time.

Critical habitat designation for *Cirsium hydrophilum* var. *hydrophilum* is not prudent due to lack of benefit. *Cirsium hydrophilum* var. *hydrophilum* is a wetland species and alteration of its tidal marsh habitat may be regulated by the Corps under the Clean Water Act. The inadequacies of the permitting

process for wetland fills and other activities in protecting rare species is discussed under Factor "D" of the "Summary of Factors Affecting the Species" section above. Although there may be a Federal nexus for *Cirsium hydrophilum* var. *hydrophilum* through the Clean Water Act, the designation of critical habitat for this species would provide little or no benefit to the protection of this species beyond that provided by listing. Because of the small size of the total population of this species (i.e., a few thousand individuals) and the small area of occupied habitat (i.e., less than 0.40 ha (1 ac)), any adverse modification of the occupied habitat would likely jeopardize the continued existence of *Cirsium hydrophilum* var. *hydrophilum*.

Critical habitat designation for *Cordylanthus mollis* ssp. *mollis* is not prudent due to lack of benefit. *Cordylanthus mollis* ssp. *mollis* is a wetland species and alteration of its tidal marsh habitat may be regulated by the Corps under the Clean Water Act. The inadequacies of the permitting process for wetland fills and other activities in protecting rare species is discussed under Factor "D" of the "Summary of Factors Affecting the Species" section above. Because of the small size of the total population of this species (i.e., several thousand individuals) and the small area of occupied habitat (i.e., about 12 ha (31 ac)), any adverse modification of the occupied habitat would likely jeopardize the continued existence of *Cordylanthus mollis* ssp. *mollis*. Moreover, any benefit that may be gained by designation of critical habitat is out weighed by the detriment of such a designation. The publication of maps depicting precise locations of critical habitat that is required for designation would contribute to the further decline of this species by facilitating trespassing, uncontrolled collecting, and hindering recovery efforts. Urban encroachment in the Suisun Marsh Protection Zone increases the threat of foot traffic in sensitive tidal marsh areas where these plants occur (R. L. Brown, California Department of Water Resources, *in litt.* 1993), and these areas are easily accessed by foot from the public roads near the marsh. As discussed in Factor "E" above, the ongoing harvesting of seeds and attempts at artificially expanding one of the populations in Contra Costa County by seeding, that is occurring without proper permits from the State of California, potentially threatens the genetic diversity of *Cordylanthus mollis* ssp. *mollis* (Deborah L. Elliot-Fisk,



University of California at Davis, *in litt.* 1996; David Tibor, CNPS, *in litt.* 1996).

Critical habitat receives consideration under section 7 of the Act with regard to actions carried out, authorized, or funded by a Federal agency. As such, designation of critical habitat may affect non-Federal lands only where such a Federal nexus exists. Critical habitat designation requires Federal agencies to ensure that their actions do not result in destruction or adverse modification of critical habitat. However, both jeopardizing the continued existence of a species and adverse modification of critical habitat have similar standards and thus similar thresholds for violation of section 7 of the Act. In fact, biological opinions that conclude that a Federal agency action is likely to adversely modify critical habitat but not jeopardize the species for which it is designated are extremely rare.

Most populations of the two taxa occur on private or State lands. The designation of critical habitat on private or State lands will afford no additional benefit for these species over that provided as a result of listing provided there is no Federal nexus. Designating critical habitat does not create a management plan for the areas where the listed species occurs; does not establish numerical population goals or prescribe specific management actions (inside or outside of critical habitat); and does not have a direct effect on areas not designated as critical habitat.

Protection of the habitat of these species will be addressed through the section 4 recovery process and the section 7 consultation process. The Service believes that Federal involvement in the areas where these plants occur can be identified without the designation of critical habitat. For the reasons discussed above, the Service finds that the designation of critical habitat for these plants is not prudent.

#### Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain activities. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Act provides for possible land acquisition and cooperation with the State and requires that recovery plans be developed for all listed species. The protection required of Federal agencies and the prohibitions against certain activities involving listed plants are discussed, in part, below.

Section 7(a) of the Act requires Federal agencies 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 being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(1) requires Federal agencies to use their authorities to further the purposes of the Act by carrying out programs for listed species. If a species is listed, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into consultation with the Service.

One occurrence of *Cordylanthus mollis* ssp. *mollis* is on land that is managed by the U.S. Navy. Activities conducted by the U.S. Navy that may affect this species would be subject to review under section 7 of the Act. The U.S. Bureau of Reclamation and the Corps would become involved with these plants through their funding of projects that may directly impact the plants or support development of areas that contain suitable salt or brackish marsh habitat for these plants. The Corps also would be involved as an authorizing agency for permits to dredge or fill wetlands and navigable waters of the United States. The Corps regulates dredging and filling of jurisdictional wetlands and navigable waters, including salt marshes, under section 404 of the Clean Water Act. By regulation, nationwide permits may not be issued where a federally listed endangered or threatened species may be affected by the proposed project without first completing consultation pursuant to section 7 of the Act. The presence of a listed species would highlight the national importance of these resources. Highway construction and maintenance projects that receive funding from the Department of Transportation (Federal Highway Administration) also would be subject to review under section 7 of the Act.

Listing *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* as endangered provides for development of a recovery plan (or plans) for them. Such plan(s) would bring together both State and Federal efforts for conservation of the plants. The recovery plan(s) would establish a framework for agencies to coordinate activities and cooperate with each other

in conservation efforts. The plan(s) would set recovery priorities and estimate costs of various tasks necessary to accomplish them. It also would describe site-specific management actions necessary to achieve conservation and survival of the two species. Additionally, pursuant to section 6 of the Act, the Service would be able to grant funds to affected states for management actions aiding the protection and recovery of these species.

The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to all endangered plants. All prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.61, apply. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to import or export; transport in interstate or foreign commerce in the course of a commercial activity, sell or offer for sale in interstate or foreign commerce, or remove and reduce the species to possession from areas under Federal jurisdiction. In addition, for plants listed as endangered, the Act prohibits the malicious damage or destruction on areas under Federal jurisdiction and the removal, cutting, digging up, or damaging or destroying of such plants in knowing violation of any State law or regulation, including State criminal trespass law. Certain exceptions apply to agents of the Service and State conservation agencies.

The Act and 50 CFR parts 17.62, 17.63, and 17.72 also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered or threatened plant species under certain circumstances. The Service anticipates few permits would ever be sought or issued for the two species because the plants are not common in cultivation or in the wild. Requests for copies of the regulations on listed plants and inquiries regarding them may be addressed to U.S. Fish and Wildlife Service, Ecological Services, Endangered Species Permits, 911 NE 11th Avenue, Portland, Oregon 97232-4181; telephone 503/231-2063 or FAX 503/231-6243).

The Act directs Federal agencies to protect and promote the recovery of listed species. Collection of listed plants on Federal lands is prohibited. Proposed Federal projects and actions including activities on private or non-Federal lands that involve Federal funding or permitting require review to ensure they will not jeopardize the survival of any listed species, including plants. The Act does not prohibit "take" of listed plants on private lands, but private landowners

should be aware of State laws protecting imperiled plants.

It is the policy of the Service, published in the **Federal Register** on July 1, 1994 (59 FR 34272), to identify to the maximum extent practicable at the time a species is listed those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of the listing on proposed and ongoing activities within a species' range. Most occurrences of both plants are either on private or non-Federal lands. One population of *Cordylanthus mollis* ssp. *mollis* occurs on land managed by the Department of Defense (U.S. Navy). The Service believes that the following actions would result in a violation of section 9, although possible violations are not limited to these actions alone—collection, damage, or destruction of these species on Federal lands, except in certain cases described below; and activities on non-Federal lands conducted in knowing violation of California State law, which requires a ten day notice be given before taking of plants on private land. The Service believes that, based on the best available information at this time, the following actions will not result in a violation of section 9 on private land provided that they do not violate State trespass or other laws—waterfowl hunting, bird watching, and fishing. Activities that occur on Federal land, or on private land that receive Federal authorization, permits, or funding, and for which either a Federal endangered species

permit is issued to allow collection for scientific or recovery purposes, or a consultation is conducted in accordance with section 7 of the Act, would also not result in a violation of section 9. The Service is not aware of any otherwise lawful activities being conducted or proposed by the public that will be affected by this listing and result in a violation of section 9. General prohibitions and exceptions that apply to all endangered plants in section 9(a)(2) of the Act, implemented by 50 CFR 17.61, apply as discussed earlier in this section. Questions regarding whether specific activities will constitute a violation of section 9 should be directed to the Field Supervisor of the Service's Sacramento Fish and Wildlife Office (see **ADDRESSES** section).

**National Environmental Policy Act**

The Fish and Wildlife Service has determined that an Environmental Assessment or Environmental Impact Statement, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Act. A notice outlining the Service's reasons for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244).

**Required Determinations**

The Service has examined this regulation under the Paperwork Reduction Act of 1995 and found it to contain no information collection requirements.

**References Cited**

A complete list of all references cited herein is available, upon request, from the Field Supervisor, Sacramento Fish and Wildlife Office (see **ADDRESSES** section).

Author: The primary authors of this final rule are Kirsten Tarp and Matthew D. Vandenberg, U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office (see **ADDRESSES** section).

**List of Subjects in 50 CFR Part 17**

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

**Regulations Promulgation**

Accordingly, Part 17, subchapter B of chapter I, Title 50 of the Code of Federal Regulations, is amended 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. Section 17.12(h) is amended by adding the following, in alphabetical order under FLOWERING PLANTS, to the List of Endangered and Threatened Plants, to read as follows:

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

Species		Historic range	Family name	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
FLOWERING PLANTS							
* <i>Cirsium hydrophilum</i> var. <i>hydrophilum</i> .	* Suisun thistle .....	* U.S.A. (CA) .....	* Asteraceae .....	* E	* .....	NA	* NA
* <i>Cordylanthus mollis</i> ssp. <i>mollis</i> .	* Soft bird's-beak .....	* U.S.A. (CA) .....	* Scrophulariaceae ....	* E	* .....	NA	* NA
*	*	*	*	*	*		*

Dated: November 12, 1997.  
**Jamie Rappaport Clark,**  
 Director, Fish and Wildlife Service.  
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