DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AD14

Endangered and Threatened Wildlife and Plants; Proposed 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

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The U.S. Fish and Wildlife Service (Service) proposes 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 or brackish tidal marshes within the San Francisco Bay area in northern California. Habitat conversion, water pollution, changes in salinity, indirect effects of urbanization, stochastic events, mosquito abatement activities (including off-road vehicle use), competition with non-native vegetation, insect predation, erosion, inadequate regulatory mechanisms, and other human-caused actions variously imperil these two species. This proposal, if made final, would implement the Federal protection and recovery provisions afforded by the Act for these plants.

DATES: Comments from all interested parties must be received by August 11, 1995. Public hearing requests must be received by July 27, 1995.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Field Supervisor, Sacramento Field Office, U.S. Fish and Wildlife Service, 2800 Cottage Way, Room E-1803, Sacramento, California 95825-1846. Comments and materials received, as well as the supporting documentation used in preparing the rule, will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Kirsten Tarp, Sacramento Field Office (see **ADDRESSES** section) (telephone 916/978-5801; facsimile 916/978-5056).

SUPPLEMENTARY INFORMATION:

Background

Cirsium hydrophilum var. *hydrophilum* (Suisun thistle) and *Cordylanthus mollis* ssp. *mollis* (soft bird's-beak) occur in either salt water or 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 curtailed. Approximately 15 percent, 12,142 hectares (ha) (30,002 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 salinities. Brackish marshes are less saline than salt marshes. Salinity levels vary with time and space, depending on the height of the tides or on 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. Both proposed plants are restricted to a narrow tidal band, typically in higher elevational zones within larger tidal marshes that have fully developed tidal channel networks. They usually do not occur in smaller fringe tidal marshes that are generally less than 100 meters (m) (300 feet (ft)) in width, or in nontidal areas.

Discussion of the Two Species Proposed for Listing

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 infraspecific 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 *C. 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, however, relocated the thistle at two locations within Suisun Marsh (Brenda Grewell, California Department of Water Resources (CDWR), pers. comm. 1993). Collectively, the occurrences of *C. hydrophilum* var. *hydrophilum* total a few thousand individuals (Brenda Grewell, pers. comm. 1993). *Cirsium hydrophilum* var. *hydrophilum* grows in the upper reaches of tidal marshes associated with *Typha angustifolia, Scirpus americanus, Juncus balticus,* and *Distichlis spicata.* One occurrence is on California Department of Fish and Game (CDFG) lands and a second occurrence 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). Its highly restricted distribution increases its susceptibility to catastrophic events such as disease or pest outbreak, severe drought, oil spills, or other natural or human caused disasters. Habitat conversion, habitat fragmentation, indirect effects from urban development, increased salinity, projects that alter natural tidal regime, mosquito abatement activities, competition with non-native plants, and inadequate regulatory mechanisms also threaten this taxon.

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 *C. mollis.* Later botanists treated the taxon as Adenostegia mollis (Greene 1891) and *Chloropyron molle* (Heller 1907). Tsan-