type (''wild,'' ''composite,'' or ''unknown'') and status (''healthy,'' ''depressed,'' ''critical,'' or ''unknown''). Of the 90 coho salmon stocks identified in Washington, 37 were classified as ''healthy,'' 35 as ''critical'' or ''depressed,'' and 18 as ''unknown.'' Of the 37 ''healthy'' stocks, only 4 (all on the Olympic Peninsula) were identified as ''native'' and ''wild'' production.

Despite recent regulations which have resulted in the closure or severe curtailment of ocean and river harvest along much of the west coast, the number of adult coho salmon returning in 1994 was very low in some river basins. Many of the coho salmon populations which are not in decline have a large hatchery-produced component that could hinder the ability of natural populations to sustain themselves in the long term. Habitat degradation, overfishing, inadequate regulatory mechanisms, negative effects of artificial propagation programs, drought and adverse ocean conditions over the last two decades are believed to be factors contributing to the species' decline.

1. *Central California Coast*—Data are limited for determining the status of this ESU. Recent population estimates have been compiled for NMFS (Brown and Moyle 1991; Brown et al. 1994). Other recent status reviews of coho salmon in California (Bryant 1994, CDFG 1994) have expanded some of the work of Brown and Moyle (1991). In compiling estimates of recent spawner abundance, Brown and Moyle relied on a ''20-fish rule'': If a stream with historic accounts of coho salmon lacked recent data, it was assumed to still support a run of 20 adults; if coho salmon were present in recent stream surveys, they used the larger of 20 or the most recent run estimate. While these estimates are crude, in most cases they are the best data available, and they are generally comparable with other estimates (Bryant 1994, CDFG 1994, Maahs and Gilleard 1994). Unless otherwise indicated, the recent abundance data used to determine the status of this ESU are taken from Brown et al. (1994).

Statewide (including areas outside this ESU) coho salmon spawning escapement in California apparently ranged between 200,000 to 500,000 adults per year in the 1940s (Brown et al. 1994). By the mid-1960s, statewide spawning escapement was estimated to have fallen to about 100,000 fish per year (CDFG 1965, California Advisory Committee on Salmon and Steelhead Trout 1988), followed by a further decline to about 30,000 fish in the mid-1980s (Wahle and Pearson 1987; Brown et al. 1994). From 1987 to 1991, spawning escapement averaged about 31,000, with hatchery populations making up 57% of this total (Brown et al. 1994). Brown et al. (1994) estimated that there are probably less than 5,000 naturally-spawning coho salmon spawning in California each year, and many of these fish are in populations that contain less than 100 individuals.

Estimated average coho salmon spawning escapement in the central California coast ESU for the period from the early 1980's through 1991 was 6,160 naturally-spawning coho salmon and 332 hatchery spawned coho salmon (Brown et al. 1994). Of the naturally-spawning coho salmon, 3,880 were from tributaries in which supplementation occurs (the Noyo River and coastal streams south of San Francisco). Only 160 fish in the range of this ESU (all in the Ten Mile River) were identified as ''native'' fish, lacking a history of supplementation with non-native hatchery stocks. Based on redd counts, the estimated run of coho salmon in the Ten Mile River during the 1991–92 spawning season was 14 to 42 fish (Maahs and Gilleard 1994).

Of 186 streams in the range of the central California ESU identified as having historic accounts of adult coho salmon, recent data exist for 133 (72 percent). Of these 133 streams, 62 (47 percent) have recent records of occurrence of adult coho salmon and 71 (53 percent) no longer have coho salmon spawning runs. Nehlsen et al. (1991) provided no information on individual coho salmon stocks in this region, but identified stocks in small coastal streams north of San Francisco as at moderate risk of extinction, and those in small coastal streams south of San Francisco as at high risk of extinction. Higgins et al. (1992) considered only drainages from the Russian River north, but four coho salmon stocks within this ESU were identified as at risk: Three of special concern and one (Gualala River) as at high risk of extinction.

In comparison with ESUs that occur to the north, it is evident that coho salmon populations in the central California ESU are more depressed and at greater risk of extinction since the abundance of fish is generally lower and a larger number of populations which occurred historically have apparently been extirpated. However, the available data for assessing population numbers and trends over time in the northern portion of this ESU are limited for making a determination as to whether or not the ESU warrants listing as threatened or endangered. In the area south of San Francisco, however, it is clear that coho salmon populations are severely depressed. For this reason, the California Department of Fish and Game (CDFG) has determined that the remaining coho populations south of San Francisco warrant protection as an endangered species under the California Endangered Species Act. However, in that portion of the ESU north of San Francisco, coho salmon populations are more abundant, and in fact most of the fish within the ESU occur there. Thus, while the southernmost populations in the ESU may warrant endangered status, it is not clear that the ESU as a whole is in imminent danger of extinction. In addition to this uncertainty, several actions have been taken or are anticipated which are expected to help protect and conserve coho populations in this ESU.

First, the State of California accepted a petition to list coho populations south of San Francisco in 1994 under the California Endangered Species Act and has been conducting a status review over the past year. Since the petition was accepted, the coho populations proposed for listing by the State have been protected under the State ESA. The CDFG recently completed its review and recommended that these populations be listed under State law as endangered. NMFS anticipates that the State Fish and Game Commission will take action to list these populations, and thereby implement protective actions, in the summer of 1995.

Second, the Pacific Fishery Management Council (PFMC) prohibited the retention of coho salmon in both the commercial and recreational salmon fisheries along the entire west coast in 1994. A similar action prohibiting the retention of coho in all salmon fisheries south of Cape Falcon has been implemented in 1995. These actions were taken because of the depressed status of Oregon and California coastal coho stocks in 1994 and 1995, and are expected to immediately benefit these stocks by increasing escapement.

Finally, the State of California Resources Agency has initiated an effort to coordinate a broad state-wide habitat conservation planning program designed to protect and conserve coho populations in California under the State's Natural Communities Conservation Planning (NCCP) program. This effort will involve the Federal government, all necessary State agencies, county and local jurisdictions, and affected stakeholders, and is aimed at developing a NCCP conservation program for coho salmon which would serve as the basis for an ESA 4(d) rule that could be promulgated by NMFS. The Resources Agency intends to model this planning effort for coho salmon after the NCCP program which was