consideration in establishing ocean fishing regulations. The 1994 spawning escapement was estimated to be 189 adults, the lowest return on record. Neither preseason nor postseason estimates of ocean abundance are available for the winter run.

Klamath River fall chinook ocean abundance is expected to be 172,100 age-3 and age-4 fish at the beginning of the fishing season. Although the abundance forecast is 31 percent above the 1994 actual abundance, it is 43 percent below the average estimates for 1985–94. The spawning escapement goal for the stock is 33-34 percent of the natural adults for each brood but no fewer than 35,000 natural spawners (fish that spawn outside of hatcheries). The natural spawning escapement in 1994 was 33,400 adults, which was below the minimum natural spawner requirement for the fifth consecutive year.

In recent years of low abundances, the procedures used to model the Klamath fall chinook population have consistently overestimated stock abundance. This year the Council modified the predictor used to forecast age-4 ocean abundance. The change resulted in a 24 percent reduction in the 1995 forecast of the age-4 ocean population. A new predictor of the ratio of natural to hatchery adult spawners was also implemented in the 1995 escapement forecast.

Oregon coastal chinook stocks include south-migrating and localized stocks primarily from southern Oregon streams, and north-migrating chinook stocks which generally originate in central and northern Oregon streams. Abundance of south-migrating and localized stocks is expected to be low and similar to the levels observed in 1994. These stocks are important contributors to ocean fisheries off Oregon and northern California. The generalized expectation for northmigrating stocks is for a continuation of average to above-average abundance as observed in recent years. These stocks contribute primarily to ocean fisheries off British Columbia and Alaska. It is expected that the aggregate Oregon coastal chinook spawning escapement goal of 150,000 to 200,000 naturally spawning adults will be met in 1995.

Estimates of Columbia River chinook abundance vary by stock as follows.

(1) Upper Columbia River spring and summer chinook. Numbers of upriver spring chinook predicted to return to the river in 1995 are at a record low of 12,000 fish, 43 percent below the 1994 run size of 21,100 fish, and 79 percent below the 1979–84 average of 56,600 fish. The 1995 stock status continues the

substantial 1994 decline from recent improvements (1985-90 and 1992-93) in the depressed status of this stock. The 1985-90 and 1992-93 increases from the poor returns in the early 1980s are primarily the result of increases of hatchery stocks. The natural stock component remains severely depressed. Ocean escapement is expected to be significantly below the goal of 115,000 adults counted at Bonneville Dam. Upriver spring chinook are affected only slightly by ocean harvests in Council area fisheries, with the contribution of these stocks being generally 1 percent or less of the total chinook catch north of Cape Falcon, OR. Expected ocean escapement of adult upriver summer chinook is a record low of 8,600 fish. The 1995 stock status remains extremely depressed, with ocean escapement being only 11 percent of the lower end of the spawning escapement goal range of 80,000 to 90,000 adults counted at Bonneville Dam. Upriver summer chinook migrate to the far north and are not a major contributor to ocean fisheries off Washington and Oregon. Snake River spring and summer chinook are listed as threatened under the ESA (57 FR 14653, April 22, 1992).

(2) Willamette River spring chinook. Willamette River spring chinook returns are projected to be 48,500 fish, similar to the observed 1994 run of 47,800 fish, and 26 percent below the 1980–84 average return of 65,000 fish. Willamette River spring chinook stocks are important contributors to Council area fishery catches north of Cape Falcon.

(3) *Columbia River fall chinook.* Abundance estimates are made for five distinct fall chinook stock units, as follows.

(a) Upriver bright fall chinook ocean escapement is expected to be 125,000 adults, 7 percent below the 1994 actual return of 134,500 adults. The escapement goal for upriver bright fall chinook is 40,000 adults above McNary Dam, although in recent years the management goal has been 45,000 adults above McNary Dam. This stock has a northern ocean migratory pattern and constitutes less than 10 percent of Council area fisheries north of Cape Falcon.

(b) Lower river natural fall chinook ocean escapement is forecast at 11,500 adults, 11 percent below the 1994 run size of 12,900 adults.

(c) Lower river hatchery fall chinook ocean escapement is forecast at a record low of 42,400 adults, similar to the 1994 preseason estimate but 20 percent below the 1994 return of 52,900 adults. This stock has declined sharply since the record high return in 1987. Lower Columbia River fall chinook stocks normally account for more than half the total catch in Council area fisheries north of Cape Falcon, with lower river hatchery fall chinook being the single largest contributing stock.

(d) Spring Creek hatchery fall chinook ocean escapement is projected to be about 22,500 adults, above the 1994 return of 18,000 adults; the 1986–1990 average ocean escapement was 16,700 adults. The Spring Creek hatchery fall chinook stock has been rebuilding slowly since the record low return in 1987.

(e) Mid-Columbia bright fall chinook ocean escapement is projected to be about 30,100 adults, 6 percent above the 1994 return of 28,500 adults. These fall chinook are returns primarily from hatchery releases of bright fall chinook stock in the area below McNary Dam, although some natural spawning in tributaries between Bonneville and McNary dams is also occurring.

(4) Snake River wild fall chinook. Also of concern are Snake River wild fall chinook, which are listed as threatened under the ESA (57 FR 14653, April 22, 1992). Ocean escapement of Snake River fall chinook in 1995 is predicted to be 580 fish, just over onehalf the 1994 run. Information on the stock's ocean distribution and fishery impacts are not available. Attempts to evaluate fishery impacts on Snake River fall chinook have used the Lyons Ferry Hatchery stock to represent Snake River wild fall chinook. The Lyons Ferry stock is widely distributed and harvested by ocean fisheries from southern California to Alaska.

(5) Washington coastal and Puget Sound chinook. Washington coastal and Puget Sound chinook generally migrate to the far north and are affected insignificantly by ocean harvests from Cape Falcon to the U.S.-Canada border.

Coho Salmon Stocks

Oregon coastal and Columbia River coho stocks are the primary components of the OPI. Beginning in 1988, the Council adopted revised estimation procedures that were expected to more accurately predict abundance of the following individual OPI area stock components: Public hatchery, private hatchery, Oregon coastal natural (OCN) for rivers and lakes, and Salmon Trout Enhancement Program. Prediction methodologies are described in the Council's "Preseason Report I Stock Abundance Analysis for 1988 Ocean Salmon Fisheries." In response to the extremely low abundances in 1994, some changes to the abundance predictors were implemented as described in the Council's "Preseason Report I Stock Abundance Analysis for