

# LOWER COLUMBIA – ELOCHOMAN FALL CHINOOK

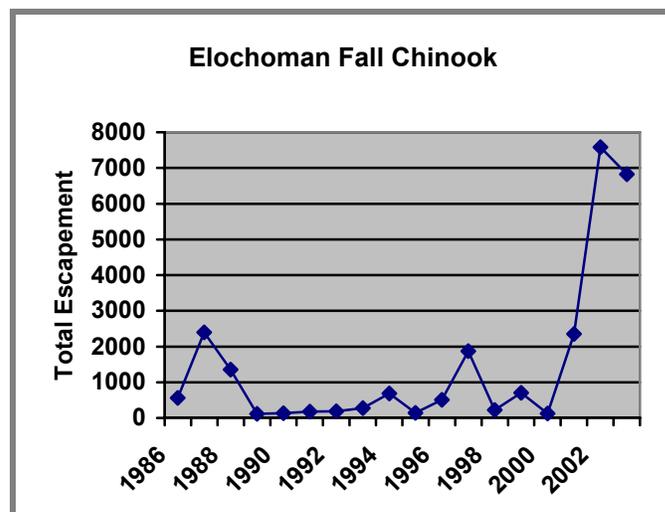
## STOCK STATUS

<b>1992 STATUS</b> Healthy	<b>2002 STATUS</b> Healthy
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## STOCK STATUS RATING DATA

**USEFULNESS FOR RATING STOCK STATUS:** Good

YEAR	TOTAL ESCAPEMENT
1986	558
1987	2,392
1988	1,356
1989	120
1990	136
1991	178
1992	190
1993	274
1994	688
1995	144
1996	508
1997	1,875
1998	220
1999	707
2000	121
2001	2,354
2002	7,581
2003	6,820



Data are total escapement estimates based on annual peak live plus dead spawner counts from the Elochoman Hatchery (RM 9.4) downstream to the Foster Road bridge (RM 3.4).

Stock status is rated **Healthy** in 2002. Generally, tule fall Chinook stocks, such as Elochoman fall Chinook, experienced poor survival in the 1990s. Currently natural spawning abundance is a reflection of adult returns to the Elochoman Hatchery in excess of hatchery requirements.

## STOCK DEFINITION

Elochoman fall Chinook were identified as a stock based on their distinct spawning distribution.

**SPAWNING DISTRIBUTION:** Most spawning takes place in the mainstem Elochoman between RM 4 and 9.

**SPAWNING TIMING:** Spawning generally occurs from late September to mid-November.

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**GENETIC ANALYSIS:** Samples of Elochoman fall Chinook spawners were taken in 1995 and 1997. Marked Rogue River (Oregon) Chinook from net pen releases have been found in the Elochoman River, and 23 were included in the 1995 sample. When known Rogue River fish were removed from the sample, allozyme analysis showed that Elochoman Chinook allele frequencies were similar to but distinct from those of other Columbia River Chinook. Some introgression with Rogue River fish may have occurred (Marshall et al. 1995).

## STOCK ORIGIN

This is a **mixed** stock with **composite** production and is similar in life history to other tule fall Chinook stocks in the lower Columbia. A native fall Chinook population existed in the Elochoman prior to the construction of the Elochoman Hatchery in 1953. Since then most natural spawners have been excess hatchery fish passed above the hatchery rack. In 1997, 82% of naturally spawning Chinook in the Elochoman were hatchery-origin fish (Harlan 1999).