

# UPPER COLUMBIA RIVER – OKANOGAN SOCKEYE

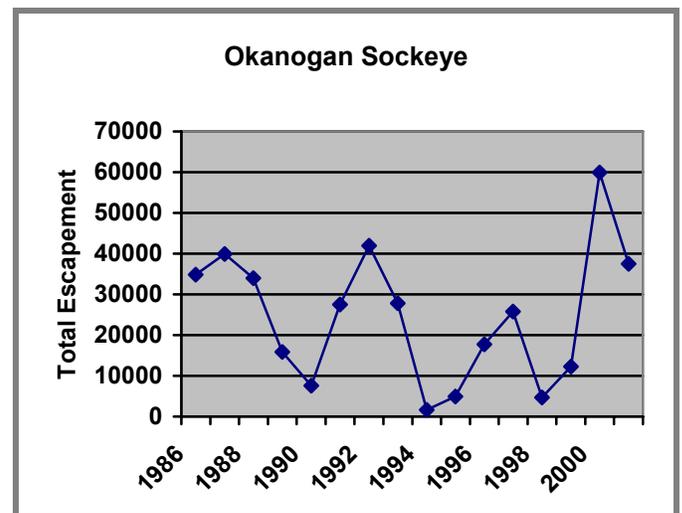
## STOCK STATUS

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

**USEFULNESS FOR RATING STOCK STATUS:** Good

YEAR	TOTAL ESCAPEMENT
1986	34,876
1987	39,940
1988	33,980
1989	15,895
1990	7,597
1991	27,492
1992	41,951
1993	27,843
1994	1,665
1995	4,892
1996	17,773
1997	25,754
1998	4,669
1999	12,228
2000	59,944
2001	37,462



Data are total escapement estimates based on adult fish counts over Wells Dam.

Stock status is rated **Depressed** in 2002 based on **chronically low** escapements. A minimum escapement objective of 58,730 adults at Wells Dam is supported by data from the Department of Fisheries and Oceans, Canada. Observed returns, averaging 18,148 adult sockeye per year in the most recent decade, were the lowest for any decade within the 45-year period for which counts have been made.

## STOCK DEFINITION

Okanogan sockeye were identified as a stock based on their distinct spawning distribution.

**SPAWNING DISTRIBUTION:** Spawning takes place in the Okanogan River above Lake Osoyoos in British Columbia.

**SPAWNING TIMING:** Spawning generally occurs in October with the peak usually occurring in the third week.

**GENETIC ANALYSIS:** Allozyme analysis has shown that Okanogan sockeye are genetically distinct from all other Washington sockeye stocks examined (Shaklee et al. 1996).

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## STOCK ORIGIN

This is a **native** stock with **wild** production. There were releases of 200,000 or fewer hatchery sockeye into Lake Osoyoos by the Colville Confederated Tribes from 1992 through 1998.