

# HOOD CANAL – BIG/LITTLE QUILCENE SUMMER CHUM

In 1992 this stock was a component of the Hood Canal summer chum stock, which was rated Critical, and did not receive a separate status rating.

## STOCK STATUS

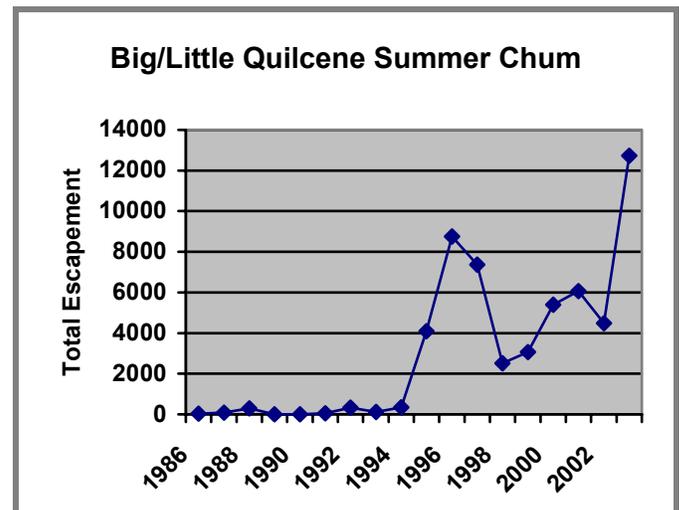
|                  |                  |
|------------------|------------------|
| 1992 STATUS      | 2002 STATUS      |
| <b>Not rated</b> | <b>Depressed</b> |

## STOCK STATUS RATING DATA

USEFULNESS FOR RATING STOCK STATUS:

Good

| YEAR | TOTAL ESCAPEMENT |
|------|------------------|
| 1986 | 27               |
| 1987 | 79               |
| 1988 | 297              |
| 1989 | 2                |
| 1990 | 6                |
| 1991 | 50               |
| 1992 | 743              |
| 1993 | 148              |
| 1994 | 722              |
| 1995 | 4,574            |
| 1996 | 9,515            |
| 1997 | 7,903            |
| 1998 | 3,057            |
| 1999 | 3,237            |
| 2000 | 5,898            |
| 2001 | 6,373            |
| 2002 | 4,487            |
| 2003 | 12,733           |



Data are total escapement estimates based on Quilcene National Fish Hatchery rack counts, live spawner counts from RM 0.0 to 2.8 on the Big Quilcene River, and on Little Quilcene River live spawner counts from RM 0.0 to 1.8.

Large escapements of Big/Little Quilcene summer chum have occurred since 1995, however, these returns have been a direct result of a hatchery supplementation program designed to rebuild this stock. Because the recent high values are primarily the result of supplementation releases rather than natural production, because escapements in the Little Quilcene are still low and because poor freshwater habitat conditions may constrain natural production in both rivers, the stock is rated **Depressed** in 2002 due to **chronically low** natural escapements (WDFW and PNPTT 2000).

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## STOCK DEFINITION

Big/Little Quilcene summer chum were recognized as a separate stock in the state-tribal summer chum recovery plan (WDFW and PNPTT 2000) based on their distinct spawning distribution and early spawning timing.

**SPAWNING DISTRIBUTION:** Most spawning takes place in the lower three miles of the Big Quilcene River and in the lower two miles of the Little Quilcene River.

**SPAWNING TIMING:** Spawning generally occurs from mid-September through mid-October.

**GENETIC ANALYSIS:** Allozyme analysis has shown that Big/Little Quilcene summer chum are genetically distinct from all other Washington chum stocks examined except Hamma Hamma summer chum (Phelps et al. 1995). Separate stock status is based on the geographic distance between the stocks and the likely degree of reproductive isolation.

## STOCK ORIGIN

This is a **native** stock with **composite** production. Since 1992, the U.S. Fish and Wildlife Service's Quilcene National Fish Hatchery has maintained a Big/Little Quilcene summer chum supplementation program that contributes to the production of this stock.