

Memorandum

To : Nick Villa
Senior Fishery Biologist
Department of Fish and Game
Rancho Cordova, California

Date : September 10, 1998

From : Department of Fish and Game - Region 2

Subject : Butte Creek Spring Run Chinook Salmon Survey, August 18-24, 1998.

Butte Creek was snorkel-surveyed between the Centerville Head Dam and Okie Dam. The estimate for the 1998 adult spring-run chinook salmon escapement is **18,742 to 20,259** salmon. A total of 313 salmon carcasses was seen. Each day's survey is summarized below.

Day 1 - August 18, 1998. Centerville Head Dam to Chimney Rock. Personnel: K. Hill (DFG), C. Steitz (PG&E), T. Moncrief (DFG) and S. McReynolds (DFG). Salmon seen totaled 3560-3865 live adults, 10 carcasses. Water temperature was 16°C (61 F), 1020 hours below Centerville Head Dam, 20 C (68 F), 1420 hours at Little Chimney Rock. No yearlings were seen.

Day 2 - August 19, 1998. Chimney Rock to Helltown Bridge. Personnel: K. Hill (DFG), C. Steitz (PG&E), T. Moncrief (DFG) and S. McReynolds (DFG). Salmon seen totaled 4333-4652 live adults, 61 carcasses. Water temperature was 16 C (61 F), 1130 hours above Chimney Rock Pool and 20 C (68 F), 1430 hours mid-way through survey. No yearlings were seen.

Day 3 - August 20, 1998. Helltown Bridge to Quail Run Bridge. Personnel: K. Hill (DFG), C. Steitz (PG&E), T. Moncrief (DFG) and S. McReynolds (DFG). Salmon seen totaled 5199-5767 live adults, 75 carcasses. Water temperature was 16 C (61 F), 1015 hours at Helltown, 17 C (62 F), 1215 hours below the Centerville Powerhouse outlet, and 18.5 C (65 F), 1345 hours at Quail Run Bridge. Three yearlings were seen.

Day 4 - August 21, 1998. Quail Run Bridge to Covered Bridge. Personnel: K. Hill (DFG), T. Moncrief (DFG) and S. McReynolds (DFG). Salmon seen totaled 4659-4929 live adults, 113 carcasses. Water temperature was 15 C (59 F), 0950 hours at Quail Run Bridge and 19 C (66 F), 1330 hours at Covered Bridge. Two yearlings were seen.

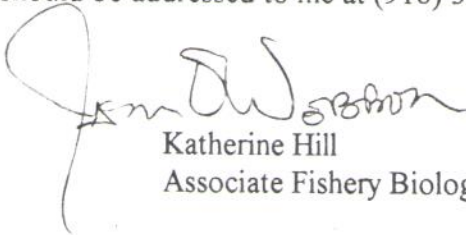
Day 5 - August 24, 1998. Covered Bridge to Okie Dam. Personnel: T. Moncrief (DFG) and S. McReynolds (DFG). Salmon seen totaled 991-1046 live adults, 54

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carcasses. Water temperature was 17 C (63 F), 1200 hours at Covered Bridge and 21 C (70 F), 1430 hours at Okie Dam. One yearling was seen.

Many of the pools that had partially filled in during the winter of 96/97 were scoured out by last winter's storms, so holding habitat has increased somewhat. The riparian vegetation is still recovering and lack of shading is still a significant problem. Rainbow trout, most under 150 mm FL, were abundant. Several brown trout were seen below the Powerhouse. Adult and larval foothill yellow-legged frogs (*Rana boylei*) were seen throughout the survey reach, though in low numbers compared to last year. No bullfrogs were seen, even down as far as Okie dam.

Any questions about this survey should be addressed to me at (916) 358-2945 or email: khill@hq.dfg.ca.gov

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