

**M e m o r a n d u m**

To: **Ms. Tracy McReynolds**

Date: **July 31, 2007**

From : **Department of Fish and Game-Chico Office**  
 Subject : **Big Chico Creek 2007 Adult Escapement Estimate**

Big Chico Creek was snorkel surveyed from Higgins Hole downstream to Ten Mile Gate (Upper Bidwell Park) on July 18<sup>th</sup>, 2007. Ten Mile Gate to Salmon Hole was surveyed on July 20<sup>th</sup>, 2007. The survey was divided in three different sections (Figure 1). California State University, Chico Research Foundation employees Kyle Thompson, Mitch Azevedo, Andrew Honeycutt, and Josh James participated in this years' survey.

**The 2007 spawning escapement for spring-run Chinook salmon is 0.** The total number of salmon observed in each section and water temperature data are provided in the table below.

Creek Section	# of Salmon	Temperature Range
(1) Higgins Hole To Henning's Hole	0	17 - 19° C
(2) Henning's Hole To Ten Mile Gate	0	18.5 - 20° C
(3) Ten Mile Gate To Salmon Hole	0	18 - 21° C

This year's adult escapement survey was again conducted earlier than in years past due to the concern for potential pre-spawn mortalities resulting from low water flow and increasing water temperatures,

In Section (1) and (2) no salmon were observed in the entire reach. Heavy cloud cover and a continuous rain/drizzle persisted throughout the day. In section (3) no salmon were observed.

On May 17<sup>th</sup>, 2007 the Department of Fish and Game conducted a fish rescue at One Mile Pool (Sycamore Pool) in Bidwell Park and successfully relocated four adult Chinook salmon to the vicinity of Higgins Hole. The local landowner confirmed at least two surviving salmon after the relocation effort. As of July 18<sup>th</sup>, 2007 no salmon were observed in the traditional holding pool of Higgins Hole.

Paul Maslin, from the Big Chico Creek Ecological Preserve reported two salmon in Hennings Hole on July 25<sup>th</sup>, 2007. The two salmon were not observed during the July 18<sup>th</sup> survey or on a follow up visit by department personnel on July 27<sup>th</sup>, 2007.

On June 6<sup>th</sup>, 2007 Sam Plemons, CSUC Research Biologist observed nine salmon holding in Salmon Hole. As noted in previous years, regardless of water flow conditions, a number of

salmon migrate upstream and hold once they reach Salmon Hole. It is thought that in some years a few fish ascend the ladder after holding in the Salmon Hole area and some continue to hold until conditions become lethal and expire. This years' low water flow inhibited their ability to navigate through Iron Canyon Fish Ladder. Survival of salmon is unlikely due to increasing water temperatures and human activity.

Any questions or concerns about the 2007 Big Chico Creek salmon escapement survey can be addressed to me at (530) 895-5110 or [cgarman@dfg.ca.gov](mailto:cgarman@dfg.ca.gov).

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