

December 20, 2015

**To:** Richard Marovich, Putah Creek Streamkeeper

**From:** Ken W. Davis, Aquatic biologist  
Wildlife Survey & Photo Service

**Subject:** Interim Report for Salmon Spawning in Winters Putah Creek Park

### SUMMARY

It was brought to my attention that 7 or 8 salmon were seen spawning in the upstream section of Phase 3 of the Winters Putah Creek Park (WPCP) Project, just downstream from the Phase 1 Weir. My understanding is that the claim was made by an individual that apparently cannot be identified or contacted for additional discussion, documentation, or the date(s) he witnessed spawning. I am very familiar with upstream section of Phase 3 as it has been a New Zealand Mudsail monitoring station since 2004. I surveyed the area for any sign of salmon, trout, or redds of either species five times between 11/30/2015 and 12/18/2015. I saw no salmon or redds in Phase 3 on any of the survey dates. On the same survey days, adult salmon were relatively common in Phase 1 and Phase 2. Eleven salmon redds were documented in Phase 1 and eight salmon redds were documented in Phase 2. On two occasions, California Department of Fish and Wildlife biologists were with me and witnessed many of the adult salmon and salmon redds.

**Results of Salmon Surveys in Phase 3:** All surveys in Phase 3 on five separate dates were NEGATIVE for salmon, trout and redds of either species. (See my attached report for exact survey dates and images.)

**Comment:** I suspect that the individual who made the claim of spawning salmon in Phase 3 might have seen salmon moving through Phase 3 headed upstream to better spawning areas. Or, he could have seen salmon in the upper section of Phase 2 and erroneously believed he was looking at Phase 3.

Winters Putah Creek Park: Phase 3



**Phase 3:** The primary area in question regarding the undocumented report of salmon spawning is within the upper section of Phase 3 is identified by the white oval in the image above. Although that is the only area possibly suitable for salmon spawning in Phase 3, I checked the entire section for any sign of salmon and trout and redds of either species. The yellow bars delineate the WPCP Phases.





## REPORT

**The Salmon Surveys:** The only area in Phase 3 (WPCP) that might be acceptable for salmon spawning is immediately downstream from the Phase 1 Weir (shown in image below). Because salmon and salmon redds can be difficult to see depending upon water clarity, time of day and reflections I surveyed the site five times during the 2015 salmon run (11/30/2015, 12/11/2015, 12/14/ 2014, 12/15/2015 and 12/18/2015). On all occasions the water was clear and I used polarized glasses which I typically use for fish surveys in Putah Creek and on other waterways. I examined the area from both sides of the creek and most recently waded the area in question. I expect to look at the area until I am convinced the salmon run is over.



Phase 1 "Weir" (altered by citizens since construction) and the specific areas in Phase 3 (arrows) surveyed for salmon and salmon redds



2015/12/15 15:04  
-8m 1014hPa  
38° 31' 19"N 121° 57' 51"W

Phase 3 area just downstream from the Phase 1 Weir. Most of the area has cemented cobble. The south channel is characterized by deep mud and heavy growths of *Myriophyllum* sp.





## Wildlife Survey & Photo Service

2443 Fair Oaks Blvd. # 209 • Sacramento, CA 95825 • (916) 747-8537

## Interim Report: 2015 Salmon Survey (Winters Putah Creek Park )

### **Salmon Surveys in Phase 1:**

I have documented eleven (11) salmon redds in the Phase 1 Section of the WPCP. Adult salmon were affiliated with every redd in the Phase 1 Section. At least twenty-eight salmon were seen during pre-spawn activities, collectively spawning, or guarding their redd(s).



**PHASE 1:** Neil crossing and weir. At least four salmon redds in this area.



**PHASE 1:** Salmon on spawning bed 12/11/2015. Redd on Neil Crossing. File # 5172-22Neil. © Ken W. Davis





## Wildlife Survey & Photo Service

2443 Fair Oaks Blvd. # 209 • Sacramento, CA 95825 • (916) 747-8537

## Interim Report: 2015 Salmon Survey (Winters Putah Creek Park )

### **Salmon Surveys in Phase 2:**

I have identified eight salmon redds in Phase 2 of the WPCP Project. Chinook salmon were common in the Phase 2 Section and were actively spawning and protecting redds in the period from 11/18/2015 to 12/20/2015. Twenty-one salmon were documented in Phase 2.



**PHASE 2:** Section of WPCP where salmon were documented spawning.



**PHASE 2:** Chinook salmon near redd on Phase 2 - Phase 3 Crossing. 11/30/2015 File # 5157-22WPCP. © Ken W. Davis





**Habitat Use by Spawning Chinook Salmon in Lower Putah Creek:**

Part of the effort to monitor the salmon run in Lower Putah Creek is to provide recommendations to the Streamkeeper regarding the habitat selected by salmon for spawning.



*Female Chinook over her redd. Video documentation is part of the effort to determine the quality of substrate where salmon are choosing to dig redds and spawn. Image © Ken W. Davis.*



*Rainbow Trout: Large rainbow trout are frequently encountered in certain reaches of Putah Creek. Although unlikely that fish such as this spawning pair would be mistaken for salmon it is possible. It is doubtful that 7 or 8 trout this size would be moving together through Phase 3 (WPCP). © Ken W. Davis*





## Wildlife Survey & Photo Service

2443 Fair Oaks Blvd. # 209 • Sacramento, CA 95825 • (916) 747-8537

## Interim Report: 2015 Salmon Survey

(Winters Putah Creek Park )

### Comments / Recommendations:

On the five different days that I examined the upper section of Phase 3, I saw no sign of salmon or rainbow trout or redds of either species. It is noteworthy that at the same time and dates of my surveys in Phase 3 that spawning salmon and rainbow trout were common in areas upstream from the WPCP Project. On the same dates, spawning salmon were also common in Phase 1 and Phase 2 of the Project. I estimate that at least 600 Chinook salmon were in the Lower Putah Creek system during the survey period.

The report of spawning salmon in the upstream section of Phase 3 of WPCP was apparently a miscommunication or misunderstanding. Because migrating salmon have to swim through Phase 3 to get upstream to more ideal spawning areas the unidentified individual who made the comment about seeing spawning salmon might have seen fish moving through the shallow area downstream from the Phase 1 Weir. Or, possibly the individual might have witnessed spawning salmon in the upper section of Phase 2 and thought that was considered Phase 3. In fact, according to my 11/30/2015 field notes, I did speak to numerous people who watched the salmon in Phase 2 and thought that section was Phase 3 simply because it was the most downstream section of the three phases of the WPCP Project.

Per my e-mail correspondence I invite anyone to contact me who believes that they have seen salmon spawning in the Phase 3 section downstream from the Phase 1 Weir.

Report submitted via e-mail on December 21, 2015

Respectfully,

Ken W. Davis  
Aquatic biologist / Wildlife Photojournalist  
Wildlife Survey & Photo Service  
2443 Fair Oaks Blvd., # 209  
Sacramento, CA 95826  
(916) 747-8537  
ken@creekman.com  
www.creekman.com



© Ken W. Davis