



April 15, 2019

To: Rich Marovich

Subject: Scarification / Creek Condition Post 2019 High Water

REPORT

The following is a brief update on current creek conditions from Pickerel to Morales as of April 14, 2019. I was getting reports of high-water isolation pools which can be another opportunity to find benthic macroinvertebrates that might have migrated down from Miller Creek or other tributaries. It also allows me to determine the current state of juvenile salmon refugia and possible presence of juvenile salmon that survived high-water conditions. I offer the following images, comments, and recommendations:

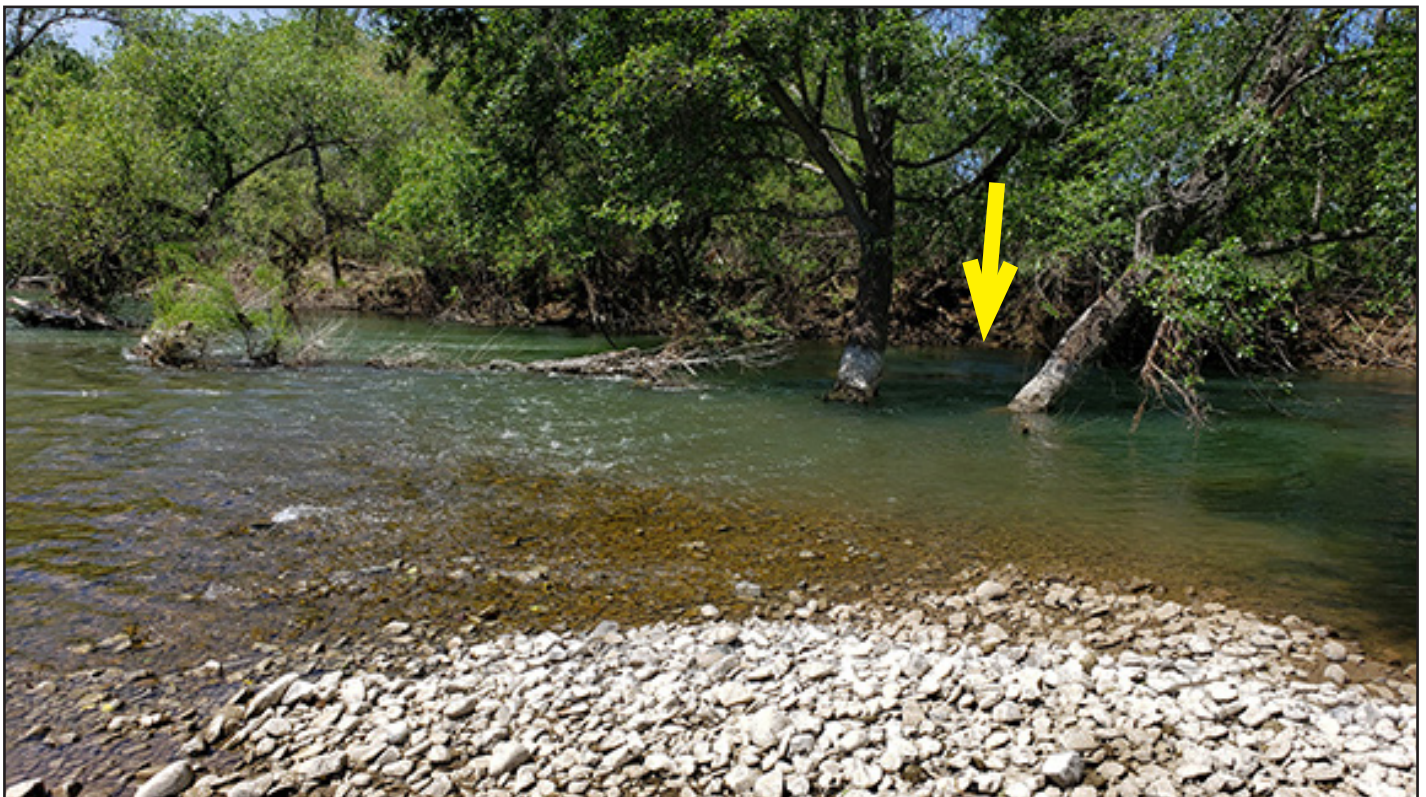
1. **Isolation Pools:** I examined over 15 isolation pools looking for macroinvertebrates, isolated fish, etc. I saw NO dead juvenile salmon in areas where there are hundreds of dead sticklebacks.
2. **Juvenile Salmon:** I located what I believe is a large school of juvenile salmon. I should be able to document the species of fish by the end of the week. Their size, shape and behavior is consistent with juvenile salmon.
3. **Scarification Future:** As documented on pages 2 and 3, there are significant deposits of cobble that are ideal for spawning Chinook salmon. Some are adjacent to existing scarification sites. Rick Fowler and I will evaluate these sites for their potential inclusion into the 2019 Scarification Project.
4. **Woody Debris:** There are less numbers of large woody debris and logs as compared to the 2017 high-water events. I suggest that all woody debris be left in place until the "Creek Worker" group (which I believe is planned) can discuss the situation and plan to preserve essential wildlife habitat.
5. **Drone Images:** I suggest that we get drone images (video) of the reach between the PDD and Parker. The main channel appears to be moving in some areas, drone footage would be beneficial for discussion and planning.



Pickerel Crossing on April 14, 2019



Section between Cody and Harris properties on April 14, 2019



Harris section on April 14, 2019. The 2014 Scarification Control site (yellow arrow) is behind the trees on the right. This area is possibly the best salmon spawning area in Lower Putah Creek.



Upper section of Morales property on April 14, 2019

Transmitted via e-mail on April 15, 2019

Respectfully,

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