

REPORT 4987 BMI Response - Scarification

May 11, 2015

To: Chris Lee Rich Marovich

Subject: General Field Update

The following is a general update with possibly the most interesting is the preliminary results of the success of the scarification process and salmon redds on the aquatic invertebrate population.



Large Mouth Bass - Lake Berryessa

Putah Creek Fish Video Project:

The project continues with the effort to capture video and still images of species not yet covered. Also attempting to determine which species are continuing to use weirs and other restoration areas.



Mussel Surveys - Lake Berryessa

Mussel surveys continue per the provisions and techniques described in the *"Solano Project: Early Detection and Education Plan for Eurasian Mussels."* To date, all surveys have been negative with zero organisms of concern.

Markey Cove Marina - Mussel Survey Area



Putah South Canal. Mussel / NZMS Colonizer

Putah South Canal - Invasive Species Surveys:

All areas surveyed negative. Schedule has been affected by construction (road work) along the canal. Will attempt to coordinate more efficiently with SID.



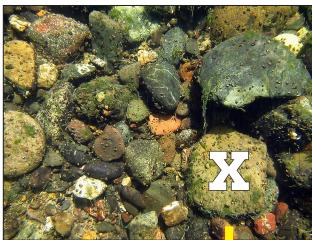
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Scarification Project: Benthic Invertebrate Response

It appears that the scarification process (artificial scour) does have a positive effect on the benthic invertebrate population. That condition was expected via experience in other Western waterways.

Control Section of Scarification / Salmon Redd



Scarification Section No 3.

Scarification Project: Benthic Invertebrate Response

The additional gravel movement by female salmon in areas where scarification was conducted appears to have an additional positive effect on some aquatic invertebrates. This is being monitored and documented.

When the top layer of cobble is removed (see image on left), gravel resources remain below. Typically in this area, the gravel is not mobilized, it is buried.



Scarification Section No. 3. After one cobble is removed.

Scarification Project: Benthic Invertebrate Response Image shows gravel resources when surface cobble is

removed. This condition will be measured and documented.



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New Zealand Mudsnail Density:

The New Zealand Mudsnail density in certain areas of Putah Creek has been reaching 200,000 / sq. meter.

New Zealand Mudsnails - Interdam Reach



Male Bluebird with grub for chicks in cavity nest.

Submitted via E-mail May 12, 2015:

en W. Danie

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Putah Creek Bluebird Project:

Pro bono project. Meeting on May 19th to discuss the potential for citizens to adopt (for an annual fee) a nest box.