Stanislaus River Fisheries Flow Discussion

Date: December 12, 2012

Time: 9:00am-12:00pm

Location: US Bureau of Reclamation

801 I Street, Suite 140

Bay Delta Office Conference Room

Call-in information: **(303) 445-3916**, code **1111**

Topics: Spring/ summer fisheries flows on the Stanislaus River

Agenda:

1. Outmigration flows (April-May)
2. Late spring flows (June-July)
3. Spring and summer temperatures
4. Summary and next steps

Conference #:(303) 445-3916; Password: 1111

Attendees:

Patti Idlof – USBR
Tim Heyne - CDFG
Roger Guinee – FWS
Ben Nelson – USBR
Monica Gutierrez – NMFS
Sierra Franks – NMFS
Barb Byrne – NMFS
Andrea Fuller – FISHBIO
Paul Frank – NewFields
Bill Paris – OID
Karna Harrigfeld – SEWD
Janice Pinero – USBR
JD Wikert – FWS
Rachel Johnson – USBR
Richard Stevenson – USBR
Patti Clinton – USBR
Tom Fitzhugh – USBR
Julie Zimmerman – FWS
John Hannon – USBR
Paul Fujitani – USBR

On the phone:
Mary Johannis – USBR
Melissa Vignu – USBR
Mark Tompkins – NewFields

Meeting Notes

Geomorphology

- FISHBIO began the meeting with a recap on the geomorphology discussion, bringing up the need to develop questions on what to expect from the models.
- Since the last meeting NewFields has discussed modeling with FWS. NewFields plans to model to find the benefits of modifying existing conditions. This includes determining the location and timing of sediment movement, through sediment transport and hydraulic modeling. The biological significance of different factors needs to be determined before modeling.
- There was clarification about the different types of sediment models. One model can determine at what flows the river bed is mobilized. This analysis is fairly straightforward and has high accuracy. This was contrasted to the development and use of a sediment transport model that can give insights into where different sediments would be transported/deposited as a function of different water release operations, which is less accurate. The use of these two approaches differs depending on the objectives of interest.
- NMFS raised the question of how sediment is deposited in the river and expressed concerns that sediment would remain in the incised channel without higher flows.
- FWS questioned whether there is a problem of fine-sediments to fish on the Stanislaus River. The concerns FWS expressed related to the Stanilsaus River being regulated and incised. FWS' perspective relates to the Anadromous Fish Restoration Program and fish doubling standards set forth in the Central Valley Project Improvement Act.
- SEWD recommended that the agencies outline and communicate their priorities to the districts.

OID brought up the federal government's request for an extension on court ordered deadlines. Reclamation noted that due to the uncertainty of an extension, the process must continue as planned.

Outmigration Flows

- SEWD expressed concerns over sustained springtime flows at 1500 cfs without seeing signs of benefit.
- FISHBIO explained that under sustained flows, sub-daily fluctuations from snowmelt are lost.
- FWS the landscape has changed, resulting in a box to mimic the snowmelt. This is significant with ½ the fish in the river during this period.
- Between 1986 and 2006, CDFG completed approximately 8 studies using coded wire tags to test salmonid survival. In most years the flows ranged 600-1500 cfs. There has not been a report discussing the results of this study. FISHBIO has interpreted CDFG spreadsheet results to indicate a lack of benefits of flow within this range to the survivorship of fish.
- FISHBIO would like to see several (3-5) pulse flows to cue multiple groups of fish to outmigrate together. This could result in group migration, increasing survival and making management easier. FISHBIO referenced an IEP newsletter that highlighted results of a pulse-flow experiment that was conducted in 2003. There may be the potential to understand the role of managed flow release from the Stanislaus River

versus when fish emigrate, when the other tributaries are also contributing flows that stimulate outmigration associated with greater mainstem turbidity.

Districts' Proposal

- SEWD proposed a set block of water, to be managed by the agencies, as opposed to a sustained level of water.
- FISHBIO explained the plan applies to the mutually expressed desire for variability.
- The operational limitations of managing the water as a block were addressed. Reclamation explained the physical release of the water is not the main issue, rather the accounting for various types of water. Combined with current management of different types of water, this may lead to priority issues. With reasonable notice, Reclamation would be able to make scheduled releases from an operational standpoint to increase variability in water release, depending on other factors, such as power generation.
- The size, scope and extent of the blocks of water would need to be determined.
- There was general consensus about the benefits of added fluctuations/variability in spring hydrographs.
- There was discussion about the duration of flows >1500cfs. NMFS RPA limits spring pulse flow events to <10 days to reduce potential impacts of seepage to orchard crops. FWS explained the importance of sustained floodplain habitat. The initial benefit of floodplain habitat occurring is a boost in food sources. With sustained floodplain habitat, organic material decomposes, providing additional benefits. . OID would like to know specific areas of possible floodplain habitat. FWS is currently modeling and generating maps to highlight these locations.

Other topics

- Districts advocate the same plan with the San Joaquin River Agreement Stateboard process.
- Seepage may be an issue with sustained floodplain habitat. There are no new studies.
- Reclamation has used otoliths to investigate the survival of different size out-migrants from the Stanislaus River and the results are used in the CDFG SALSIM model due out in 2013.
- CDFG intends to release for use a new salmonid model SALSIM in January, 2013.
- There was interest in the use of the SALSIM model to understand fall-run Chinook salmon responses to the different flow scenarios.
- Velocity was discussed as a mechanism. The consensus was that less exposure to predators was beneficial, however determining when and how much was unknown.

Next Steps

The next meeting will be held January 10th, to discuss temperature, summarize points of agreement from the previous meetings, and identify next steps.