MINASIAN, MEITH, SOARES, SEXTON & COOPER, LLP

ATTORNEYS AT LAW
A Partnership Including Professional Corporations

1681 BIRD STREET
P.O. BOX 1679
OROVILLE, CALIFORNIA 95965-1679

Writer's e-mail: pminasian@minasianlaw.com

PAUL R. MINASIAN, INC.
JEFFREY A. MEITH
M. ANTHONY SOARES
DUSTIN C. COOPER
EMILY E. LaMOE
PETER C. HARMAN
ANDREW J. McCLURE

WILLIAM H. SPRUANCE,
Retired

MICHAEL V. SEXTON,
Retired

TELEPHONE:
(530) 533-2885

FACSIMILE:
(530) 533-0197

March 12, 2015

Via email transmission

State Water Resources Control Board
1101 I Street
Sacramento, California 95814

commentletters@waterboards.ca.gov

Re: March 17-18, 2015 Meeting of the State Water Resources Control Board Consideration of proposed Resolution to update and re-adopt a drought-related emergency regulation for curtailment of diversions due to insufficient flow for specific fisheries

Board Members:

We made extensive comments on behalf of Stanford Vina Ranch Irrigation Company and other Tehama County water right holders during the 2014 proceedings and as part of Requests for Reconsideration filed on behalf of Stanford Vina. We incorporate herein those comments, authorities, and statements.

In addition, hoping that brevity might finally gain your attention:

You have not held hearings that would allow a balancing of the need for water and its relative value. In 2014 you accepted bare assertions from the California Department of Fish and Wildlife (CDFW) and the National Marine Fisheries Service (NMFS) that a minimum flow of 50 cfs and June pulse flows of 100 cfs were necessary and beneficial to encourage survival and spawning of the few late-arriving Spring Run in June.

Now, despite the success of last year's pulse flow regime (see, e.g., NMFS Technical Memorandum to Tom Howard, Feb. 2, 2015, at p. 2 ("Prescribed pulse flow events were very successful")), the proposed 2015 emergency regulations demand even more water, and more often. Although the 2015 NMFS Technical Memorandum only requested pulse flows once every two weeks, the proposed 2015 emergency regulations demand unlimited pulse flows as often as every 3 days or whenever requested by NMFS or CDFW. And although last year's emergency regulations only required pulse flows during June, due to the late action on the regulations, this year's proposed emergency

regulations would triple that period, to three months, beginning in April, even though last year's one-month pulse flow schedule was "successful." These proposed regulations would require diverters to provide artificial pulse flows regardless of whether natural pulse events had just occurred or were about to occur. The proposal will require immobilizing irrigation systems for substantial periods of time, with little advance notice—only 72 hours—leaving farmers continually guessing about when or whether they will have a chance to exercise their water rights and with no ability to plan ahead. Not one of the studies done on the Tehama County streams by State or Federal experts supports this unlimited pulse flow regime and, to top it off, there is no requirement that the water even be cold enough to support healthy spawning adults or juvenile outmigrants.

Under the proposed 2015 emergency regulations, if local agencies sign memorandums of understanding with NMFS and/or CDFW, then these regulations would not apply. The regulations essentially demand that diverters "voluntarily" agree to provide water to government agencies for public purposes without any compensation, or else be made subject to even more draconian regulations. None of these plans are founded on good science. No evidentiary hearings have been held to determine the actual water needs of the fish or to balance those alleged needs against the taking of the diverters' established property rights and the inherent value of their reasonable and beneficial uses of water. These regulations would assure that farmers are forced to give up water that would have been put to a beneficial use, so that it can instead be used to lure fish to their deaths in the lethally warm water further up the creeks.

In 2014, SVRIC developed a plan with well-respected fisheries biologists to excavate a narrow channel in Deer Creek through four miles of critical passage areas—at Stanford Vina's expense—which would allow for base flows to be reduced by one-third to one-half, reduce water temperatures to support salmonid survival, and reduce the risk of predation to adults and out-migrating juveniles. The study and plan is attached. Although this plan would produce substantial benefits for both the fishery and the farmers, we were told by CDFW that they would not treat the project as an emergency measure and, although we could apply for a streambed alteration permit, expedited approval would not be forthcoming.

Maintaining an orderly society that follows the rule of law, including abiding by due process, is of at least equal importance to maintaining fishery resources. If the State and citizens of California are not willing to pay for the cost of acquiring the water for the public use of providing the water to fish, then the Board should not act to undermine the rule of law. CDFW spent hundreds of thousands of dollars on a plan to provide alternative water sources (e.g., wells) to these diverters—at CDFW's expense—so that stream water

could be used for fish. When those plans did not pan out, CDFW found that these emergency regulations could force the farmers to give up the same water, while the government asserts it has no duty to pay for the water so taken or to provide any replacement water.

Conclusion

These emergency regulations were proposed in response to a manufactured "emergency" that is only the result of the State and Federal governments' refusal to acknowledge and plan for the inevitability of continuing drought, and their preference for minimizing, wherever feasible, the application of due process protections to the rulemaking process. Is it the Board's opinion that Constitutional due process allows for repeatedly imposing "emergency" regulations, with minimal procedural protections and opportunities to be heard, as a cudgel to force citizens into "voluntary" agreements to dedicate their vested property rights to public use without compensation?

This Board should delay adopting any emergency regulations, assign one Board Member to conduct an evidentiary hearing to determine how much emergency water the fish actually need for the population's survival, and inform CDFW and NMFS that, in future drought conditions, if they want to commandeer landowners' water rights for a fishery program, they should file a condemnation action in order to take the water for their experiments, and provide funding to develop alternative water supplies.

Respectfully submitted,

MINASIAN, MEITH, SOARES,
SEXTON & COOPER, LLP

By: _____
PETER C. HARMAN, ESQ.
Counsel for Stanford Vina Ranch Irrigation Company

PCH:dd
Enclosure: FishBio Report, July 28, 2014: Review of Passage and Stream Conditions in Lower Deer Creek
S:\Denise\Stanford Vina\SWRCB re Study & Plan for Low-Flow Channel in Deer Creek.3-12-15.wpd

FISHBIO

1617 S. Yosemite Avenue • Oakdale, CA 95361 • Phone: (209) 847-6300 • Fax: (209) 847-1925

TO: Paul Minasian

FROM: Gabriel Kopp and Doug Demko

DATE: July 28, 2014

SUBJECT: Review of Passage and Stream Conditions in lower Deer Creek

Unprecedented dry conditions over the course of multiple years have led to a challenging environment for water management in 2014. Conservation and prioritization efforts have resulted in difficult decisions to balance necessary environmental flows and integral water diversion for agriculture and livestock. Numerous streams have come under the scrutiny of the California Department of Fish and Wildlife (CDFW) and the State Water Resource Control Board (SWRCB). Deer Creek represents one of these streams. Deer Creek is a relatively smaller Central Valley stream with no water storage facilities, but three significant diversions. These diversions represent the only nodes of management by removing or allowing water to remain in the stream. Deer Creek supports Central Valley Steelhead and Spring Run Chinook salmon. All three diversion points lie in a migratory corridor, below the spawning reach for these species. Therefore, water kept in the stream primarily serves as a means of passage, but does not improve rearing conditions.

Current emergency regulations imposed by the SWRCB require that from October 1 to March 31, if adult steelhead are present, base flows of 50 cfs be maintained. In addition, from November 1 to June 30, if juvenile spring-run Chinook salmon or juvenile *O. mykiss* are present and adult salmon are *not* present, base flows of 20 cfs must be maintained. These regulations suggest that 20 cfs is considered a minimum passage flow by juvenile salmonids and 50 cfs for adults.

During the fall and early winter months, irrigators require diverted flows until seasonal precipitation begins. Regular precipitation may not occur until mid to late October. This makes minimum flow requirements in October and November especially critical. Current natural base flow (as of July 24, 2014) within Deer Creek is close to 60 cfs. Assuming the river would be of similar or slightly lower flow in October, regulations would allow only 10 cfs of diversion. Therefore, it is critical to determine what minimum flow in is biologically necessary for upstream and downstream passage and what measures or actions could possibly allow for lower base flows.

As a foundation for future negotiations for alternative flow and channel modifications to provide upstream and downstream passage, we addressed three questions:

1) Based on our May 17, 2014 field survey, how many potential passage impediments are there at flows under 50 cfs and where are they located?

2) Based on our field survey and aerial photographs, can we determine the base flow necessary for juvenile and adult passage at these locations?

3) What, if anything, can be done at these locations to modify the channel to improve passage at flows less than 50 cfs?

These questions are individually addressed below based on a recent field survey, available existing information, and professional judgment.

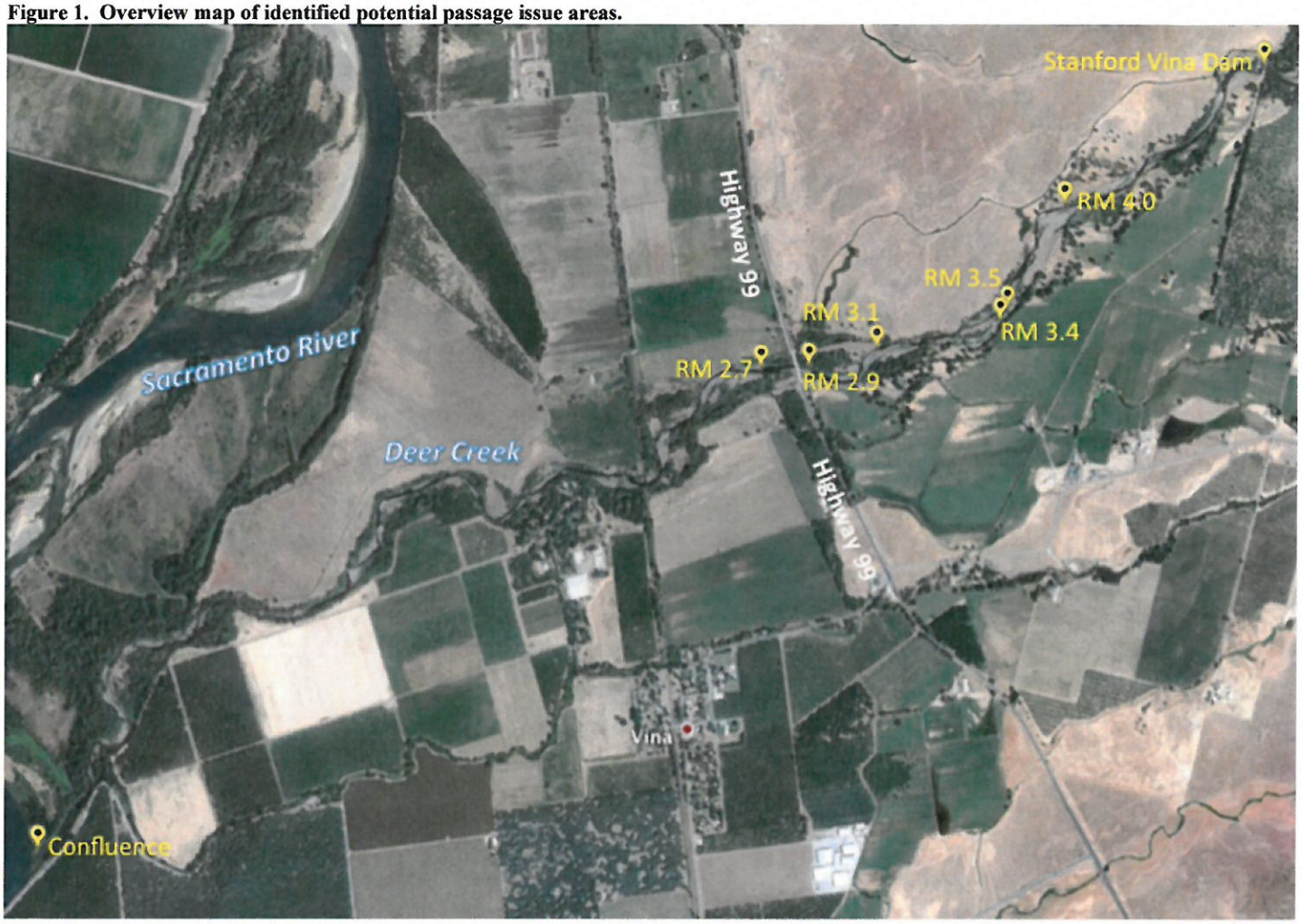
Based on our May 17, 2014 field survey, how many potential passage impediments are there at flows under 50 cfs and where are they located?

We surveyed lower Deer Creek from Stanford Vina Diversion (river mile or RM 4.5) to the confluence of the Sacramento River (RM 0.0) on May 17, 2014 to evaluate potential passage impediments at the existing flow (46-49 cfs). This surveyed reach represents what water remains in the channel between the lowest downstream diversion and the confluence of the Sacramento River and is the most critical reach for passage. The survey consisted of walking the reach and measuring wetted width, average depth, maximum depth, presence of a leaping pool, and overall water velocity (visually assessed not measured).

Multiple surveys at different low flows were not performed due to the current water conditions, time constraints, and challenges associated with controlling flow in Deer Creek (i.e. no dam control release). Although the flow ranged between 46-49 cfs at the time of our survey, we thoroughly reviewed areas that were suggestive of becoming passage issue points at even significantly lower flows. Broad and wide channels that evenly distribute flow and lack a leaping pool were areas of interest. These channel characteristics usually result in being the first areas to create passage challenges relative to other habitat in the river.

We identified six locations with characteristics (i.e. lack of depth/flow) that could impede upstream/downstream passage for salmonids, all between RM 2.7 and RM 4.5 (Stanford Vina Diversion; Figure 1). Additional detail for each site is presented in a summary table included as Appendix 1. All but two of the sites appeared to be readily passable at current and potentially lower flows near 20 cfs. Areas at RM 4.0 and 3.5 were considered to pose the greatest challenge and likely become the first areas to create passage issues during lower flow releases, while RM 2.7 would likely be the last site to become impassable.

Figure 1. Overview map of identified potential passage issue areas.



Based on our field survey and aerial photographs, can we determine the base flow necessary for juvenile and adult passage?

Assessing river conditions at lower flows than when surveyed required investigating other data sources. Aerial imagery collected over several years was obtained from Google Earth and allowed for us to evaluate whether the channel remained wetted at flows much lower than existed on our survey date. Dates on the aerial imagery collection were paired with historical flow monitoring data (California Data Exchange) to find numerous low flow examples. Discharge was represented from 6 to 49 cfs over four different years: 7-8 cfs (2010), 6-7 cfs (2012), 16-20 cfs (2013), and 46-49 cfs (2014). These aerial images were then compared with the two most challenging passage areas (RM 4.0 and 3.5) and the least challenging area (RM 2.7) based our May 17, 2014 survey data.

Shallow water and exposed rock reflect in aerial imagery, allowing for indications of passage conditions. Based on the reconnaissance-level of our survey, and the lack of depth and velocity data provided by the aerial photographs, we cannot precisely estimate the base level of flow required for successful upstream and downstream migration. However, we were surprised that the aerial photographs clearly show the entire river downstream of Stanford Vina Diversion (RM 0- RM 4.5) remains wetted at flows as low as 6 cfs. We were unable to assess flows lower than this to determine when the river no longer is wetted, but were able to confirm its state at 6 cfs.

The estimated potential for fish passage varied between sites based on the aerial imagery. Passage at RM 4.0 appears potentially feasible for adult and juvenile salmonids, even at lower flows approaching 10 cfs (Appendix 2, Table 1). The channel shape is narrower and constricted. Passage appeared to be restrictive for adult salmonids at RM 3.5 flow stages less than 46-49 cfs and likely juveniles below 20 cfs (Appendix 2, Table 2). The channel fans over a gravel bar, which spreads the flow evenly across a relatively broad width. At RM 2.7, aerial imagery remained dark with minimal shallow water reflection down to 7-8 cfs, suggesting passage may be possible below 10 cfs for adult and juvenile salmonids (Appendix 2, Table 3). The area began to show shallow water light reflections at 6-7 cfs. Passage determinations were based on professional judgment and could not be definitively determined without additional on-the-ground field measurements at different flows.

Overall, it appeared all sites but RM 3.5 would be passable for adult and juvenile salmonids at flows less than 50 cfs.

What, if anything, can be done at these locations to modify the channel to improve passage at flows less than 50 cfs?

The channel characteristics during low flows in Deer Creek offer the potential to make channel modifications in a timely manner with reasonable effort. All of the six identified areas posing potential fish passage issues at lower flows could potentially be modified to allow for passage of adult and juvenile salmon potentially at flows approaching 20 cfs. To conduct these modifications two approaches are suggested for consideration.

The first approach is simplistic, commonly used, and can be readily implemented with minimal impact. Each channel location suffers from flow being broadly spread over a wide even channel. The broad flow reduces depth and negates passage. Constricting the flow without significantly modifying the channel may increase the depth and provide sufficient flow for passage. Locally available moderate sized rock (i.e. stream cobble) can be taken from the channel or shoreline and stacked by hand in a downstream v-shape to channel lower flows at critical locations. These modifications are also referred to as simplified rock weirs. Examples of streams utilizing these modifications are presented in Figure 2. Constricting the channel down to 3 to 4 feet of width may result in 1 to 2 feet of depth. These stacks of rock will sustain lower flows and possibly provide suitable passage conditions at very low flows. Rock structures would then likely be displaced during seasonal winter flow events, allowing for the river to assume a more natural shape and appearance. This approach is cost effective, minimally disruptive, and effective during very low flows. Generally this resolution would need to be repeated if similar conditions were presented in the following year.

Figure 2. Examples of local cobble used to constrict flow and provide improved fish passage conditions in both small and moderate sized streams. Left picture: Spruce Brook, Connecticut, Department of Energy and Environmental Protection. Right picture: Hurdygurdy Creek, California, USDA.

The second approach would require heavy machinery to excavate a low flow channel at the identified critical passage points in the river. The low flow channel would similarly focus all flow in the stream into a narrower channel and provide passage at substantially lower base flows. The six identified areas occur in readily accessible locations that would feasibly be accessed by heavy equipment. Some locations, such as RM 3.5 may not be as conducive to the first approach and possibly better suited for channel modification or a blending of both approaches. Each location would need to be addressed on a case-by-case basis. Given the small size and scope of the project, the excavation activity duration would be brief and the effect of the activity likely minimal. Possible short-term effects would include increased turbidity and noise. Unlike the first approach, this effort would likely result in a longer-term solution that would either require minimal or no additional effort if another dry water year were to occur.

The overall conclusion from this review is that there is the possibility to provide suitable passage for all lifestages at flows significantly less than 50 cfs. Minimal activity at select locations could greatly improve passage conditions and allow for juvenile and adult salmonids to move freely at flows possibly as low as 15 to 20 cfs. Implementing these channel revisions and following up with additional monitoring would provide an adaptive pathway forward. This adaptive approach would allow for lower base flows, but also ensure that sufficient flow for adult and juvenile salmonid passage would be present. Considering and readily implementing these activities appears reasonable and merited, given the overall challenging conditions, difficult water management decisions, and need for maximized water usage.

Appendix 1

Summary of Areas on Deer Creek from the Sacramento River Confluence to Stanford Vina Dam That May Create Passage Issues at Low Flows

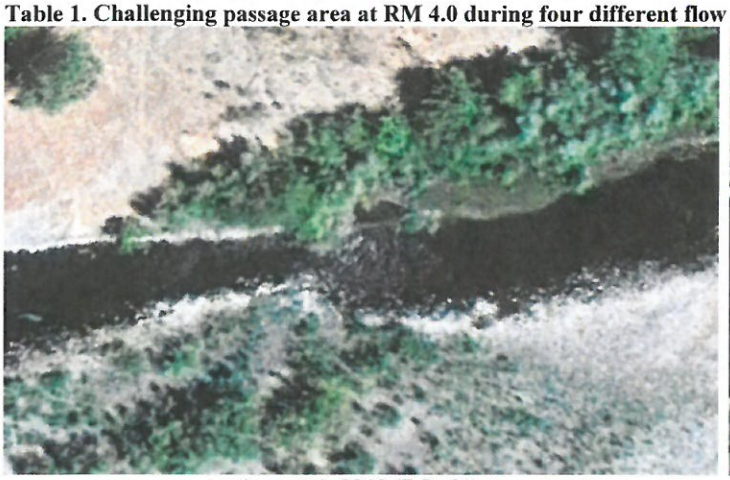
Location (River Miles)	Channel Features at 49 cfs	Field Researcher Notes	Image
RM 2.7	Channel width is less than 20 yards across with a depth ranging up to 1 foot in pockets. The location appeared passable at current flow by adult or juvenile salmonids.	Location is proximally below the Highway 99 bridge crossing. Not a critical location, but may become an area to monitor at very low base flows.	
RM 2.9	Channel width is less than 14 yards at the narrowest point. Water depth increased near the far shoreline to nearly 1 foot. The location appeared passable at current flow by adult or juvenile salmonids.	Location is proximally above the Highway 99 bridge crossing. Likely not an issue at most flows, but may become a challenging area at very low flow.	
RM 3.1	Channel width is less than 15 yards on average and maintains a water depth of 0.5 to 0.8 feet throughout. The location appeared passable at current flow by adult or juvenile salmonids.	Area is moderately susceptible to lower flows and would likely require modification at moderate to very low flows.	

Location (River Miles)	Channel Features at 49 cfs	Field Researcher Notes	Image
RM 3.4	Channel width is less than 10 yards across. Water depth ranged from 0.5 to 0.75 feet. The location appeared passable at current flow by adult or juvenile salmonids.	Area is moderately susceptible to lower flows and would likely require modification at very low flows. There is a slot at the right of the image that provides the greatest depth and could be readily deepened to improve passage conditions.	
RM 3.5	Channel width was greater than 30 yards. Depth was less than 0.5 feet overall. Gravel bar width extends for several yards. The location appeared minimally passable at current flow for adult salmonids and reasonably passable for juveniles.	Critical area likely susceptible to passage issues more readily than other sites. Flow could be readily focused to immediately improve passage by mild channel excavation. The broad gravel bar width and length appears to be the primary issue.	
RM 4.0	Channel width was less than 10 to 15 yards. Depth was generally 0.5 feet across the channel. The location appeared passable at current flow by adult or juvenile salmonids.	Area is moderately susceptible to lower flows and would likely require modification at moderate to very low flows.	

Appendix 2

Historic Aerial Imagery Assessment at Passage Issue Areas During Low Flow Conditions

Table 1. Challenging passage area at RM 4.0 during four different flow conditions. Aerial photos are from Google Earth.



August 1, 2010 (7-8 cfs)

August 27, 2013 (16-20 cfs)

August 18, 2012 (6-7 cfs)

May 17, 2014 (46-49 cfs)

Table 2. Challenging passage area at RM 3.5 during four different flow conditions. Aerial photos are from Google Earth.

August 1, 2010 (7-8 cfs)

August 27, 2013 (16-20 cfs)

August 18, 2012 (6-7 cfs)

May 17, 2014 (46-49 cfs)

Table 3. Passage issue area at RM 2.7 that was identified as likely the last to become impassable of all identified sites.

August 1, 2010 (7-8 cfs)

August 27, 2013 (16-20 cfs)

August 18, 2012 (6-7 cfs)

May 17, 2014 (46-49 cfs)