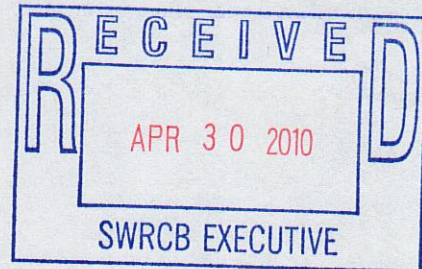


April 30, 2010

Via Email to commentletters@waterboards.ca.gov

Chair Charles Hoppin and Members of the Board
c/o Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814



Re: Comment Letter – AB 2121 Policy: Joint Comments of Wagner & Bonsignore Consulting Civil Engineers, and Ellison, Schneider & Harris LLP Regarding April 27 Redline Policy

Dear Chair Hoppin and Members of the Board:

Wagner & Bonsignore Consulting Civil Engineers and Ellison, Schneider & Harris, LLC provide the following comments on the April 27, 2010 Redline Draft "Proposed Policy for Maintaining Instream Flows in Northern California Coastal Streams" ("April 27 Draft Policy").

As stated in a separate letter with various conservation and agricultural groups, we support the Board's adoption of the April 27 Draft Policy that includes the Trout Unlimited, Wagner & Bonsignore and Ellison, Schneider & Harris joint recommendations highlighted in Appendix C.1.3. The broad stakeholder support for the highlighted text represents both the strong commitment to implement the joint recommendations as well as the substantial compromise to support an imperfect policy. We thank the Board for its support of such collaborative stakeholder efforts.

In response to questions about the proposed edits to Appendix C section 1.3 at the April 27 hearing, we met with your staff, your Policy consultants, and Trout Unlimited to provide additional background on our joint recommendations. The attached memorandum is responsive to your staffs' request for information about the Cumulative Effects Test for small watersheds contained in Appendix C.1.3. The supporting spreadsheet was not included with this letter due to its large size.

We understand that Trout Unlimited is submitting additional amendments to address staff's questions pertaining to the joint recommendations.

Sincerely,

Peter J. Kiel
Ellison, Schneider & Harris L.L.P.
2600 Capitol Avenue, Suite 400
Sacramento, CA 95816-5905

Robert C. Wagner, P.E.
Wagner & Bonsignore Consulting Civil Engineers
2151 River Plaza Drive, Suite 100
Sacramento, CA 95833-4133

Encl.

Wagner & Bonsignore

Consulting Civil Engineers, A Corporation

James C. Hanson
Consulting Civil Engineer
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Nicholas F. Bonsignore, P.E.
Robert C. Wagner, P.E.
Paula J. Whealen
Henry S. Matsunaga

John Faux, P.E.
David Houston, P.E.
David P. Lounsbury, P.E.
Emily MacDonald
Ryan E. Stolfus

MEMORANDUM

TO: Aaron Miller, P.E.

FROM: John Faux, P.E.

DATE: April 30, 2010

RE: Evaluation of Small Watershed Project Provision

As requested, this is to summarize the results of an evaluation of the Joint Recommendations provision for small watershed projects. We used a spreadsheet model to evaluate changes in flows at the upper limit of anadromy (ULA) associated with depletion of 10% of the wet season runoff upstream of that point. We modeled two fill-and-spill reservoirs, each impounding 5% of the runoff. One reservoir was sited at 64 acres of drainage area with no bypass. The other was sited at (a non-overlapping) drainage area of 160 acres with a February median flow (FMF) bypass. The ULA was assumed to be at 640 acres. The average unimpaired wet season runoff (November through March) at this location is 940 AF.

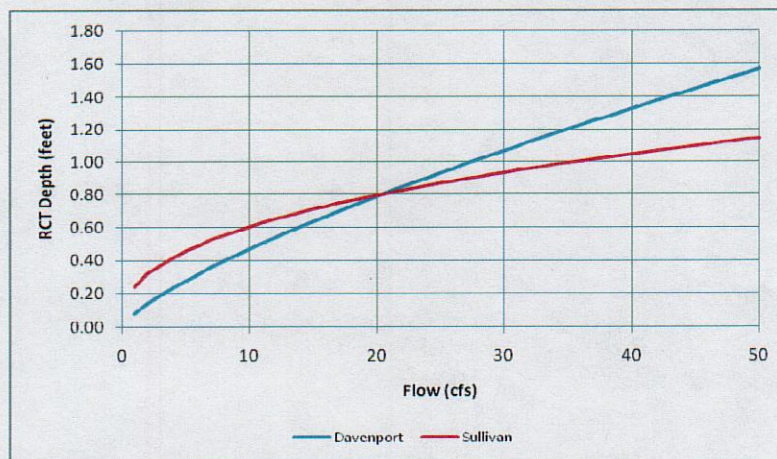
We used the Dry Creek nr Cloverdale gage because it is lengthy, unimpaired, near the center of the Policy area, and its mean and FMF are characteristic of the area. We operated a daily model for the 39 years of streamflow record to estimate unimpaired and impaired streamflow at the ULA. We then used the depth-as-a-function-of-flow rating curves from Dr. Trush's field studies (shown below) to estimate flow depths.

The final step was to evaluate the change in number of days when the flow depth was greater than that needed for spawning (QS) and greater than the winter low flow (WLF). This is analogous to the rules embodied in the policy's regional criteria. We used 0.8 feet depth for QS and 0.3 feet depth for WLF.

The results at the ULA were as follows.

	Davenport rating curve		Sullivan rating curve	
	Unimpaired	Impaired	Unimpaired	Impaired
Avg # days/yr > QS:	4.2	3.3	4.2	3.3
Avg # days/yr > WLF:	23.5	20.8	61.4	59.3

Note that the frequency of occurrence for QS are the same under both rating curves. That's because the rating curves coincide at that particular depth.



Note that while the difference due to impairment in days above QS at this location is greater than 10 percent, it is also less than 1 day. Further downstream, this flow difference fades as additional runoff enters the stream. Integrated over the full reach of the stream, the absolute change in opportunity due to the projects above anadromy is minimal. This is because the amount of water taken out of the stream is minimal.

The Joint Recommendations include two different rules for evaluating streamflow impacts in order to address two different physical situations. One test looks at change in flow depth in the area of anadromy; in general, most projects in such areas are direct diversions or diversions to offstream storage. The other test evaluates impact to flows in anadromy due to projects above anadromy that are primarily onstream diversions. The scale effects are different and the mode of operation is different. That's why different tests are needed and justified.