

Appendix C

Comment Letters

On February 8, 2008 publicly noticed documents

Ad Hoc Committee (Ann Maurice)
Acorn Growers Association (Ellen Faulkner)
California Department of Parks and Recreation (Marla Hastings)
California Department of Transportation (Joyce Brenner)
La Prenda Vineyards Management, Inc. (Ned Hill)
North Bay Agricultural Alliance (Mike Morris)
San Francisco Estuary Institute (Kat Ridolfi)
Sonoma County Farm Bureau (Doug Beretta)
Sonoma Ecology Center (Richard Dale)
Southern Sonoma Resource Conservation District (John Guardino)
Upper Kenwood Stewardship (Keith Hanover)
U.S. EPA (Peter Kozelka)
Western United Dairywomen (Paul Martin)

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Ad Hoc Committee

P.O.Box 484
Occidental, CA 95465
707 874-3855 ph/FAX

Tina Low
San Francisco Bay Region
Water Quality Control Board

I of 4
3/20/07

re: Comments on DEIR to amend the Basin Plan regarding Sonoma Creek
TMDL and Habitat Enhancement Plan

Dear Ms Low,

In general:

Total Maximum Daily Load of Sediment:

You report that *prior to* European settlement, tributaries in the hills did *not* connect with the mainstem of Sonoma Creek. Instead, the tributaries ended on the valley floor *recharging the aquifer* and dropping their valuable nutrient-rich sediment *in the valley* enhancing valley fertility. In the 1880s, *Europeans dug channels* to connect the tributaries to the mainstem effectively cutting off this millenia-old aquifer recharge and fertilization! Because runoff from the hills was channeled into Sonoma Creek, the nutrient-rich water runs out into San Francisco Bay and nutrient-loaded sediment, instead of enriching valley soil, is now clogging Sonoma Creek. Isn't that correct?

Turn *back* the clock. That will turn the clock intelligently *forward*. Political, economic and financial conditions will allow it. The power structure will adjust. We can reverse the post 1880 European-style land use. We *can* learn from history. Sadly, in 1880, land use was changed in the valley and all over California by violence. Native people were conquered, killed and expelled. This policy destroyed wise and sustainable land use. We are wiser now. To continue wasteful practices unsuited to the natural regime will destroy *us*.

Descendants of the Native people who developed salmon-friendly land use are still alive. People with salmon-friendly cultural values still exist, and many non-Native people acknowledge the wisdom of those ways. They are similar to *certain pre-industrial* European values.

We *can* make *major* land use changes. Citizens know there is an impending food and potable water crisis. We import over 50% of our seafood. It makes no sense to be wasting our own domestic resources or putting our heads in the sand, or biding time. *The time to make a change is now. Don't you think that landowners are ready?*

Prior to European settlement, the sediment load was only 34,800 tons a year, according to your data. Under current conditions it has shot up to 111,700 tons per year! More than three times the sediment load previously!

How much of this "sediment" is valuable "topsoil"? *Shouldn't you change your headings to distinguish between "sediment", (like urban pavement runoff), and "topsoil"!* Where is it all

going? Why hasn't it filled up Sonoma Creek? Is this once nutrient-rich, but now possibly chemical toxin, pesticide-laden sediment deposited in the alluvial fan at the mouth of the creek at the bottom of San Francisco Bay? From the point of view of aquifer recharge and soil fertility, this land use style is not sustainable. After only 125 years, it's already in trouble.

What to do?

Your proposal is to reduce human caused sediment by 75%. The lion's share of the reduction coming from lowering channel erosion and incision by 35,250 tons per year, next is curtailing vineyard erosion and urban stormwater deposits by 3,500 tons per year. How do you propose to accomplish this? That brings us to:

Grading plans; Setbacks; Buffer zones; Road construction policies and "Best Management Practices". You appear to be advocating non-specific "voluntary" compliance with plans that are either on-going or not yet developed by *other* parties. We need the Regional Board to set the standard and make strong requirements.

As to on-going policies of other Agencies, since we've got a sediment problem, we assume the existing policies aren't adequate! Existing setbacks, buffer zones, Hillside Vineyard Ordinance, etc. must not be enough! How would continuing to comply with existing standards achieve a different result?

What about your own permits? You say reducing channel incision is the highest priority to be accomplished through *unspecified* new regulatory programs and Habitat Enhancement Plans. Regarding bank erosion and channel incision, you advocate "stabilizing the banks". But erosion is what "naturally" adds woody debris into the creek. Bank erosion undermines trees and drops them into the water slowing the flow, creating swirls and deep pools that you agree are the very things needed for fish rearing. Streams change their course and create new channels. Bank erosion is how they do it, the "natural" process. Mightn't bank stabilization make the flow cut the channel *deeper*, the *opposite* of what you are trying to accomplish?

Summer Flows:

Many of Sonoma Creek's tributaries dry up in the summer, resulting in long reaches of dry stream and direct mortality to fish as pools dry up. Stranding due to low flows (or no flow) has created the greatest source of fish mortality directly observed in the course of habitat surveys, with surveyors observing thousands of dead fry in dry pools. Lack of water is the biggest problem. How do you propose to correct it?

Are you promoting use of recycled water? Hopefully not the disastrous, polluting, self-annihilating *injection* of *wastewater* into the aquifer! Everything from Lipitor to Xanax has been found in wastewater, not removed in the treatment train!

Vineyards:

As to vineyards, one acre of wine grapes, *not* counting water for frost control, uses more water *per day* than a household of four. Imagine each acre with a house using 430 gpd. The original European settlers brought with them old world rootstock that develops its own long tap root -- a Mediterranean plant needing no artificial irrigation. These old vines still thrive. You can see some along Highway 12 near Glen Ellen. You don't see any irrigation tubing connecting them because it's not necessary. By contrast, the hybrids planted in the last 50 years are shallow-rooted, need irrigation. Higher tonnage per acre is due to irrigation. Rapid return on investment was traded for sound and sustainable land use! Have you considered that rainwater follows deep roots into the aquifer where the roots have disturbed the soil, creating an underground waterway penetrating clay lenses and recharging the groundwater supply?

What of major exports of Sonoma Creek water outside of the watershed? Consider thousands of bottles of wine from irrigated grapes sold ("exported") outside the Valley? Where does the irrigation water come from? The aquifer of the Valley floor (no longer being recharged by the tributaries); direct pumping out of the underflow of Sonoma Creek; wells in the headwaters of the tributaries in the hills. Do appellations in Europe allow or promote irrigation? How much? How long as a society will we contemplate this before we realize there is a water crisis?

Electroshock

Do you allow *electroshock* for monitoring or other data collection? Does your Board grant permits for electrofishing in any streams in your jurisdiction? Have you evaluated the use of repeated electroshock on fish populations; the impact of using the same voltage on groups of fish of varying size shocked at the same time, same place? As you know, the amount of voltage tolerated depends on age and size. Have you studied sub-lethal impacts like broken backs, impaired fertility, neurological distress, navigational problems?

Our findings suggest that you should specifically prohibit use of electroshock and any chemicals toxic to aquatic life by any monitoring, data collecting, non-profit organizations or consultants in any waterway in your jurisdiction.

Track Record of NGOs and Restoration Plans in General:

Casting an umbrella of approval or credibility to any NGO in your Basin Plan is totally improper. NGOs are extremely controversial. "Restoration" plans are notorious for unintended consequences and failures. Millions have been spent on river "restoration" grants over the last 25 years. The players (NGOs) receiving the grants have had more than two decades and millions of dollars to prove their worth. The result? Sonoma County Creeks and rivers are *still* "impaired". Native fish are *still* in precipitous decline. Salmon Fishing is expected to be completely closed this year! At Lake Sonoma there is now a project to breed coho salmon *in captivity* -- a generation of coho never going out to the ocean -- in a desperate, and we believe misguided, attempt to manipulate (they say "save" the species). Is it working? We heard sad testimony in August that the handful of remaining wild coho offspring had not been found last year and that the feeder creek where they were being harvested dried up this summer.

4 of 4

Having observed "restoration" plans over two decades in the Russian River drainage, we conclude that the health of the rivers and creeks and the health of the native fish populations are *inversely* proportional to the amount of money spent on "restoration"! As "Restoration plan" money keeps rising, native aquatic life keeps falling! Stop this travesty!

Our governmental agencies, appointed by our elected representatives must not abdicate in any way their lead, responsibilities and oversight to NGOs. Governmental agencies, *however flawed*, are still agencies of the people. *We do not want our water or waterways or the aquatic life produced in them "privatized," that is, controlled by NGOs or corporations.*

Is anyone using "Roundup" in sonoma Creek to kill arundo donax? We think that should be banned at once since Roundup is toxic to aquatic life.

Conclusion

Each day new studies extol the benefits of Omega 3 fatty acids for heart health. We import fish oil products from Iceland and Norway and fritter away our own cold water fishery as if it were worthless. We believe that landowners seriously interested in reversing the downward trend are frustrated.

Sincerely,

Ann Maurice

Ad Hoc Committee

P.O.Box 484
 Occidental, CA 95465
 707 874-3855 ph/FAX

Tina Low
 Water Quality Control Board

3/24/08

Sediment TMDL and Habitat Enhancement Plan *DEIR*

What to do:

1. Create an easement along the Sonoma Creek corridor limiting human activity within it but allowing the natural erosive processes to occur. This "Best Management Zone", or "Best Management Easement" could be created along appropriate sections of Sonoma Creek. Activity could be limited to planting vegetation affording the most bank stability and that allows the least sediment runoff. Perhaps include no roads, no storing of toxic chemicals, no aquatic toxin application and no heavy equipment. For grape growers, distance from riparian vegetation and associated insects would be a benefit. It might not be necessary to establish such an easement

Could the Sonoma County Open Space District be involved to purchase such "Best Management Easements".

2. Determine why the Creek is now "disconnected" from valley tributaries. If they are, does that mean that those tributaries are filling with or depositing sediments which create a barrier to flow into Sonoma Creek? If so, this may be a benefit if the tributaries are overflowing their banks and recharging the aquifer of the Valley floor. If this is occurring or could occur in areas of no flooding hazard, why not let it happen? Why not establish *incentives* for some kind of a Valley Floor Aquifer Recharge Zone (near Kenwood?) to encourage landowners to allow local overflow and *infiltration* for community benefit? Open Space District involvement?

what NOT to do:

Posting a maximum daily load for sediment may well be the OPPOSITE of what you need to do. We think that what is needed is to back away from the top of bank as stated above and let the natural erosive pattern that existed prior to 1880 resume in a manner that the landowner is treated as a collaborator and compensated for participation in a plan that benefits the entire community.

Since you say the channel is too deep and woody debris and tree trunks are needed to trap gravel, create swirls and eddies, slow the flow and provide habitat for fish breeding, then you need to trap sediment to raise the bottom of the bank and make the channel shallower. Then let the channel

erode naturally and drop dirt and gravel into the creek and fell trees as it chooses. That is what is supposed to happen! DON'T try to control and manipulate the natural process, adapt to it!

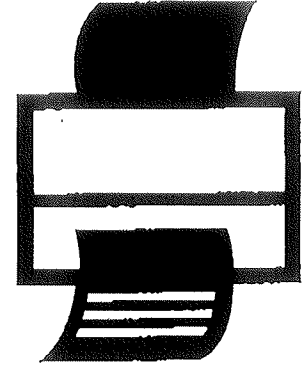
If landowners are concerned that they will lose acreage due to natural bank erosion, inform them that, as you know, river courses are dynamic and ever-changing. A river acts like a rope or a snake that whips from side to side. Do not expect to stake a claim at the top of the bank and expect that stake necessarily to be there five years later.

Sincerely,

Ann Maurice

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Our FAX NUMBER is 707/ 468-5763

TO Tina Low Re: Establishing TMDL for Sonoma Creek

FROM Ellen Faulkner, Acorn Growers Association

TOTAL PAGES (including this cover sheet) 2

If you did not receive all of the pages,
please call:

707/ 468-0251

When answering this FAX, please be sure to
include the NAME & PHONE NUMBER of the
person that will be receiving the returned FAX.

*Acorn Growers Association
P. O. 351
Redwood Valley, CA 95470*

March 24, 2008

Tina Low
S.F. Bay Regional Water Control Board
1514 Clay St., Suite 1400
Oakland, CA 94612

FAX: 510 622-2460

Dear Ms. Low,

Your research indicates that the main problem with Sonoma Creek is lack of water. The solution is simple: Stop the diversions. Let the vineyards go to dry farming as is done in Europe. It is not impossible and better, if less, wine is the result. Viniculture may have to go to dry farming methods sooner or later, so why not in time to save anadromous fish runs?

It appears that the bank stabilization program only maintains the channelization and continuing down cutting of the creek, further separating the creek from its floodplain. Stop the bank stabilization program. The creek should be allowed to cut its own meanders, and to receive the resultant sediments to fill in its current deep ditch configuration.

300 foot setbacks are absolutely necessary to save Sonoma Creek. Lets get to work on that.

Yours truly,



Ellen Faulkner



DEPARTMENT OF PARKS AND RECREATION
Diablo Vista District Headquarters
845 Casa Grande Road
Petaluma, CA 94954
(707) 769-5652 #212

Ruth Coleman, *Director*

March 18, 2008

Tina J. Low, P.E.
Water Resources Control Engineer
Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Dear Ms. Low:

We are very interested and supportive of the goals of the Sonoma Creek Watershed TMDL and Habitat Enhancement Plan. California State Parks has experience and history in implementing projects that improve and restore stream habitat and conditions for native fish in the Sonoma Creek watershed, such as the road rehabilitation projects in Annadel and Sugarloaf Ridge State Parks, and Jack London State Historic Park. We look forward to working with you to continue to implement new projects that benefit the health of the watershed, and feel the TMDL and Habitat Enhancement Plan provides a framework for this and other cooperative partnerships to achieve this common goal.

The problem of sediment in Sonoma Creek and the stream habitat impacts associated with erosion, incision, and other sediment-related processes is long-standing, and the result of many factors. Restoration of stream habitat, and conservation of the steelhead population in Sonoma Creek is a high priority for the Water Board, other state agencies including California State Parks, as well as local residents. We believe the TMDL and the implementation actions, including the Habitat Enhancement Plan, will aid in the recovery of steelhead in the watershed, as well as benefit other native aquatic organisms including the California freshwater shrimp.

The Sonoma Creek Watershed Sediment TMDL tackles the problem in a scientifically sound, equitable, and cooperative manner. First, the sediment impairment is confirmed through a Limiting Factors Analysis, and then the significant sediment sources are studied and quantified by a Sediment Source Analysis. Once major sediment sources are identified, along with other stressors to the steelhead population, the TMDL lays out an implementation plan that addresses the problems in a comprehensive manner. For discharges of sediment, the TMDL appropriately calls for regulatory programs to reduce sources. For habitat enhancement, and to address legacy impacts such as habitat simplification, the plan calls for cooperative actions supported by incentives. This approach is reasonable and very likely to succeed.

The TMDL and Habitat Enhancement Plan calls upon landowners, including public agencies such as California State Parks and Sonoma County to reduce sediment delivery from roads, and to promote natural recovery of gullies and shallow landslides. We believe this is consistent with, and supports the resource management goals of State Parks and the County. In addition, the Habitat Enhancement Plan provides exciting opportunities to address other factors impacting steelhead and other native aquatic species, such as removing fish passage barriers

and enhancing physical habitat structure. We believe the TMDL and Habitat Enhancement provides a much-needed action plan that will benefit the aquatic health of the Sonoma Creek watershed.

Sincerely,

Marla S. Hastings
Senior Environmental Scientist

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS, MS 27
1120 N STREET
P. O. BOX 942874
SACRAMENTO, CA 94274-0001
PHONE (916) 653-7507
FAX (916) 653-7757
TTY (916) 653-4086



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March 21, 2008

Tina Low
San Francisco Bay Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Re: Comments on Establishing a Total Maximum Daily Load (TMDL) for Sediment in Sonoma Creek and an Implementation Plan to Achieve the TMDL and Related Habitat Enhancement Objectives

Dear Ms. Low:

The California Department of Transportation (Department) appreciates the opportunity to comment on the proposed Basin Plan Amendment (BPA) and supporting staff report incorporating a Total Maximum Daily Load (TMDL) for sediment in Sonoma Creek. The Department strongly supports efforts to protect human health and achieve the best water quality possible. In addition, the Department has been proactive and committed in meeting TMDL goals within the San Francisco Bay Region. The Department is currently implementing numerous compliance measures discussed in the staff report and in compliance with our NPDES Stormwater Permit. However, the Department has the following concerns with the TMDL documentation:

Department Acreage Estimates

Table 5b of the Staff Report states that the acreage of Department roads in the Sonoma Creek Watershed is 1,400 acres. The estimate used by Regional Board staff is based on land cover data provided by the Sonoma Ecology Center and is shown in Figure 5 of the report. This data includes non-Department lands and drastically overestimates the total area of Department roads and facilities. Our estimates indicate that the Department right-of-way covers 284 acres of land within the Sonoma Creek Watershed.

We request that the Regional Board please make a correction for total land use area and identify specific types of roads and land uses that were included in this calculation.

Implementation Measures

The Department would like to have clarification for the requirements discussed in Table 10 of the staff report and Table 4.4 of the BPA, which lists performance standards and actions.

The sediment load from the Department is expected to be below the performance standard of 120 tons of sediment per road mile over a 20-year period, as specified in the above tables. Under the action column for Table 10 of the staff report and Table 4.4 of the proposed BPA, listed requirements include submittal of a report of waste discharge to achieve performance standards and a schedule for identified control measures with added emphasis on road crossings. Table 4.5 of the proposed BPA lists compliance with statewide NPDES permit as the action for the Department. In addition, as shown in Table 6 of the staff report and Table 3 of the BPA, the waste load allocation established for the Department is equal to the estimated current condition discharge load.

We request that the Board please clarify if any additional actions will be needed to achieve Performance standards in addition to compliance with statewide NPDES Permit. The Department implements compliance measures to minimize erosion and Department roadways are landscaped and well maintained.

TMDL Compliance Schedule

We encourage Regional Board Staff to coordinate the compliance schedule for this TMDL to be compatible with other upcoming TMDLs in the region. This would help the Department, as well as, other dischargers, with effective planning of resources and implementation of controls to meet the requirements of both TMDLs.

Thank you for the opportunity to comment. The Department strongly supports the goals of the Sediment TMDL for the Sonoma Creek Watershed surface waters, and we hope that our concerns will be addressed. If you have any questions, please contact Jagjiwan Grewal of my office at (916) 653-2115.

Sincerely,



JOYCE BRENNER
Acting Chief,
Stormwater Implementation

March 21, 2008

Tina Low
California Regional Water Quality Control Board
SF Bay Region
1515 Clay St.
Oakland, CA 94612

Ned Hill
La Prenda Vineyards Management Inc.
Sonoma Creek TMDL Steering Committee

RE: Proposed Basin Plan Amendment
Sonoma Creek Watershed TMDL

Tina,

As a member of the Sonoma Creek TMDL Steering Committee since it's inception in 2000/2001 (or earlier?) I have gone from being very skeptical of the process, to supporting it hole-heartedly, to unfortunately now again being extremely skeptical and questioning whether the TMDL guidelines as proposed will have any beneficial influence at all.

As a Committee member representing the Sonoma Valley grapegrowing community I was very happy when, very early in the process, Sandia Potter mentioned to us that this would be a "community project" and that BMP's would be able to be incorporated into the project on the Ag and Construction sides to help reach TMDL goals of reduced sediment. Unfortunately the opportunity to enact and implement BMP's has never been offered and instead the plan has presented an intense set of paperwork and information gathering for farmers that from the outset will lead more people to skirt the rules than to follow them. I would strongly recommend that the BMP's suggested by the Sonoma Valley Vintners and Growers Alliance (SVVGA) be included in the Actions for Agriculture.

The mention of the "Fish Friendly Farming" (Table 7) program is a nice gesture, however there should also be mention of programs such as the California Association of Winegrape Growers "Sustainable Farming" and mention of the work that the Sonoma Valley Vintners and Growers Alliance has done with its members in researching the best erosion control BMP's for our area.

I would like to again state for myself and for the Sonoma Valley Vintners and Growers Alliance that we would be happy to come up with standards for Vineyard BMP's in the Sonoma Valley that would work for our area and would lead to a reduced sediment flow into Sonoma Creek during the rainy season.

I must say as well that I was shocked when I heard that the ultimate goal was reduction in sediment of 75% (now stated as 82%!). Unfortunately an 82% reduction is not a reasonable goal, and setting standards that are too high and having a jumble of paperwork required for landowners only works against the process by leading people to try and skirt the rules rather than follow them.

I believe that there should be equality in this process and I am very concerned that certain implementation measures are required for surface erosion however only recommended for the stream channels. The data presented in your own tables clearly states that stream channels contribute a significant amount of sediment, however actions listed for stream channels are only “recommended”.

Perhaps the biggest concern that the Board should have with the Proposed Basin Plan Amendment is the united criticism of the Plan by the entire TMDL Steering Committee. Community members whom normally may not see totally eye to eye on issues have met for the past 8 years and, working under the header of a “Community-Based Plan”, we have come up with a plan that we are finally happy with. It is a shame to now have the groups equally concerned by the Regional Water Quality Control Board’s interpretation of and “taking over” of the process/plan. I would think that such unanimous concerns by the Steering Committee would be an obvious red-flag for the Board and would lead to the suggested changes by those whom have worked for so long to come up with this “Community-Based” TMDL.

In the area that I live the minimum lot size is 3 acres, with most lots being 3-5 acres, and the majority of people have a couple of horses or cows at their site. I am uncomfortable with the singling out of “Vineyards”, “Grazing Land” and “Rural Homeowner over 10 acres” in the plan, however not mentioning the rural homeowner living on smaller lots. Visual observation shows me that horses over the winter on a 3 acre lot expose a lot more bare ground to erosion than my 40 acre vineyard put to bed for the winter does. I would again suggest some equality in the process.

Please note that I have read and agree with the Sonoma Ecology Center’s and the Resource Conservation District’s comments and have tried not to be too repetitive in my comments.

Respectfully Submitted,

Stephen (Ned) Hill
19370 Arkay Ct.
Sonoma, CA 95476
(707) 975-0354

MAR 21 2008
COLLECTED



NORTH BAY AGRICULTURE ALLIANCE

**29000 Skaggs Island Road
Sonoma, CA 95476
707-255-8939**

Representing over 50,000 acres of San Pablo Bay shorelands

March 20, 2008

Attn: Tina Low
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612
Fax: 1-510-622-2460

Subject: Sonoma Creek Sediment TMDL, Basin Plan Amendment

Chair and Board Members:

We ask your Board not to adopt the proposed Basin Plan Amendment as we find it untenable. The proposed requirements upon us lack scientific justifications, political fairness, and economic reasonableness as well as any assurance of worthwhile ecological benefit in return. If the Amendment were adopted and enforced, you would be pushing us to civil disobedience.

What is needed is a thorough review of the process the project has taken during the past five years, including a critical re-examination of the listing of Sonoma Creek as sediment-impaired. Also required is the substantial revision of the Draft Staff Report and Implementation Plan. The present Report tries to compensate the unsubstantiated basis for the listing by expanding the scope of the TMDL project to the realm of full habitat restoration and by proposing to limit agricultural sediment input to an extent that its cost (estimated by your staff to be \$25.2 to 45.2-million) is disproportionate to the possible fish population recovery (probably negligible). In short, the adopted approach is to mitigate the basic scientific weakness by overburdening the agricultural community and expanding your work beyond TMDL proper, where your staff doesn't have expertise. With such an approach the true goal of TMDL becomes more and more elusive while the public expenses keep growing and growing. We consider it to be a professionally irresponsible approach.

There is a good amount of scientific data generated during the course of this project. They only have to be used more scrupulously than how it was done in the Draft Report. More importantly, we must recognize the limits of TMDL and RWQCB. Neither a TMDL project nor the RWQCB can, or even should, solve all the fish recovery problems or assure the whole ecological wellbeing of a stream. There are many other agencies, entities, people, and programs, which are better equipped to address different aspects of these issues. The TMDL project and your RWQCB *can* make a difference, though, *if* the limits are clearly recognized and the most intelligent actions within the limits are pursued.

Respectfully submitted,

Mike Morris
President

- cc: Sonoma County Board of Supervisors
- City of Sonoma
- Sonoma County Farm Bureau
- Sonoma County Winegrape Commission
- Southern Sonoma County RCD
- Sonoma County Water Agency
- California Farm Bureau Federation
- Sonoma Index-Tribune
- Press Democrat

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San Francisco Estuary Institute



7770 Pardee Lane, 2nd floor
Oakland, California 94621
Office (510) 746.7334
Fax (510) 746 7300

March 24, 2008

Tina Low
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612
Delivered via E-mail

Dear Tina,

Thank you for the opportunity to comment on the draft staff report for the Sonoma Creek Watershed Sediment TMDL and Habitat Enhancement Plan and Proposed Basin Plan Amendment. I applaud your efforts at compiling all the information regarding source assessment and distilling it into a well-organized document with clear priorities. SFEI has been working in the Sonoma Creek watershed in varying capacities for many years. Most recently SFEI has been engaged with local stakeholders and agencies through the Critical Coastal Areas (CCA) program, which seeks to accelerate the implementation of management measures for the control of non-point source pollution and beneficial use protection and restoration. Through the CCA Program we have identified priority projects to address current issues of concern, including sediment, and hope to start implementing these projects as soon as funding becomes available. CCA deliverables include preliminary designs or scoping documents for at least three “projects” designed to protect and/or restore beneficial uses already impacted, or at risk from being impacted in the future due to any of the categories of nonpoint source pollution listed in the NPS Plan. Thus, the TMDL will provide the necessary guidance and regulatory framework which the CCA can use to design and guide landowners through the implementation of appropriate practices to reduce sedimentation and meet the goals of the TMDL. I have a few suggestions that I think could help to make this plan a more robust guide for the long-term ecological health of the watershed:

- 1) Rural lands are defined as parcels greater than 10 acres (Table 4.3 in Proposed Basin Plan Amendment). However, smaller parcels, and the subdivision of those parcels for homes, wineries, or other structures, can still contribute significant sediment through erosional forces and/or runoff from impervious surfaces. Increases in drainage connectivity exacerbate existing bank erosion and bed incision, and will be excluded from oversight under the current definition of lands required to submit a report of waste discharge. Instead of an acreage threshold for rural lands, I suggest basing the condition for waste discharge requirements on a “% disturbance factor”, which would include total impervious surfaces plus other un-vegetated areas such as dirt roads and paths which may contribute to increased drainage connectivity and represent effective means for routing fine sediment to receiving waters.

- 2) Based upon our current experience working in the Napa River watershed to quantify and evaluate the effectiveness of vineyard and other agricultural BMPs in reducing fine sediment delivery to tributaries and the river, the proposed methods of requiring implementation of vineyard BMPs at a certain slope and tracking such implementation is insufficient. The current draft of the TMDL bases sediment reduction on vineyards and grazing lands on the Sonoma County Vineyard Erosion Control Ordinance. However, a threshold of 20% slope to *begin* to require erosion and sediment control plans for new or re-plantings is inadequate. Napa County regulations require erosion control plans for any plantings on greater than 5% slope which takes into account a larger percentage of the watershed. . Given the current sedimentation issues in the watershed, the current ordinance is not working as written, so we recommend a provision written into any waivers which goes above and beyond the current county requirements. In addition, a careful spatial tracking (in GIS format) of these BMPs is necessary to prioritize reaches or subwatersheds for future stabilization and restoration projects (a recommended action in Table 5.1 of the Basin Plan Amendment). Without an accounting of the type and coverage of BMPs, there is no way to determine if the practices that are implemented are effective or if technical assistance is needed to recommend better practices to reach the goals of the TMDL. A model for this effort of spatial tracking of BMPs is the waiver for irrigated agricultural lands for the entire central coast, administered by the Central Coast RWQCB. The waiver program there has combined requirements of water quality monitoring, continuing education, and tracking of BMP implementation to help in future decision-making by the RWQCB and landowners. We highly recommend this type of program be implemented in the Sonoma Creek watershed. We have developed an initial BMP classification system, including examples of practices, for the Napa River watershed under a Prop 40 grant that is applicable for sediment reduction. It might serve as a useful template for the Sonoma Creek watershed as well (see attached).

- 3) Lastly, the TMDL does not seem to directly or adequately address the issue of hydromodification which causes the bed and bank erosion responsible for a majority of the sedimentation of the watershed. This was a major recommendation that came out of the Sediment Source Analysis (referred to as “hosing of the creek”, p. 49). Hydromodification will be addressed in the forthcoming Municipal Regional Permit (MRP); however, watershed is currently not covered under that permit. You may want to consider applying Provision C.3.b. to those covered by a TMDL implementation plan (Draft MRP language: “Permittees shall require [certain] projects...to implement Low Impact Development (LID) management techniques (per Provision C.3.c) and design and install stormwater treatment systems that will reduce the discharge of pollutants in stormwater runoff from Regulated Projects to the maximum extent practicable..”). This provision is especially important because it bases requirements for implementation of stormwater management techniques based on the new or redeveloped impervious area of projects (similar to my recommendation for rural lands addressed in comment #1 of this letter). Components of the MRP, which base effectiveness of management practices on change in pre-project flows should also be implemented as part of this TMDL or as part of future NPDES permits for both the unincorporated areas of the Valley of the Moon and the City of Sonoma.

We look forward to the implementation of this TMDL and the continued cooperative work between the RWQCB and local stakeholders to achieve beneficial use protection of Sonoma Creek. Please contact me at kat@sfei.org or 510-746-7392 if you have any questions about these comments or if I can provide further review or advice on future drafts and plans regarding this watershed.

Sincerely,

Kat Ridolfi

Project Manager, Critical Coastal Areas program
Environmental Analyst
San Francisco Estuary Institute



SONOMA COUNTY FARM BUREAU

Affiliated with the California Farm Bureau Federation and the American Farm Bureau Federation

March 23, 2008

Ms. Tina Low
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street
Oakland, CA 94612

Subject: Sonoma Creek Sediment TMDL.

Dear Ms. Low,

On behalf of the Sonoma County Farm Bureau and our 3,400 members, I would like to present the following comments regarding the Sonoma Creek Sediment TMDL. Our organization and members take seriously resource based issues that affect our environment and the land that is vital to our responsibility to produce food and fiber.

We request that you hold adoption of the proposed Basin Plan Amendment and direct your staff to revise the implementation plan so that it may gain the support from the stakeholders. The implementation plan as detailed in the Draft Staff Report dated February 8, 2008, cannot be accepted by the agricultural stakeholders we represent. We also understand that many professionals who have been involved in this TMDL project in advisory capacity are not concurring with the Report's conclusions. We have concerns that warrant further exploration and science based evaluation.

We seriously doubt if the high cost of compliance can be justified. Your staff estimates the agricultural cost to be some \$25M to \$45M. We haven't examined if these estimates are reasonable. Whatever the true cost may be, it is highly unlikely that it will result in substantial recovery of the fish population in Sonoma Creek, particularly considering increased awareness of the Pacific Oceans conditions which are negatively affecting salmonid habitat.

Agricultural community in Sonoma County is highly conscious of the environmental value of our streams. We have been supporting the VESCO and have reduced the sediment inflow substantially. In order for us to remain good stewards of land, however, agricultural economy has to be sustainable first. In revising the Implementation Plan, Report, and proposed Basin Plan Amendment, your staff should focus more narrowly on TMDL-sediment and devise a program of cost-effective actions that the stakeholders can willingly support. The Report should also clarify under what circumstances Sonoma Creek will be de-listed of sediment-impairment.

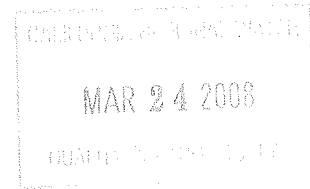
Sincerely,

A handwritten signature in cursive script that reads "Doug Beretta".

Doug Beretta



SONOMA ECOLOGY CENTER



March 17, 2008

To: Tina Low
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street
Oakland, CA 94612

Re: Proposed Basin Plan Amendment
Sonoma Creek Watershed Sediment TMDL and Habitat Enhancement Plan
Dated February 8, 2008

Dear Tina,

The Sonoma Ecology Center (SEC) has the following comments on the subject amendment. These comments are in addition to those delivered to you previously in person in TMDL Steering Committee meetings, by phone, and in writing.

As you know, the SEC and our technical partners have worked collaboratively with the Board on the sediment TMDL from before the preparation of the Limiting Factors Analysis (LFA). Subsequent to directing studies for the LFA, we led the efforts on the Sediment Source Analysis, participated in TMDL steering committee meetings, and accompanied Board staff on many field tours of our watershed. We respect the work done on behalf of Sonoma Valley by Board staff, and we admire their expertise.

We understand from talking with our colleagues at the Southern Sonoma County Resource Conservation District that their comments will highlight a disconnect between the LFA and the amendment's prescribed implementation. We agree that the LFA identified higher-priority limiting factors for steelhead that are not addressed by the amendment. Our own letter addresses a disconnect between the findings of the Sediment Source Analysis and the implementation tables. We have raised these concerns previously in meetings with Board staff, who informed us of timeline and legal limitations constraining the tables. With due respect for these limitations, we find them to be barriers to matching requirements for the Sonoma Creek TMDL with studies conducted in our watershed.

Stream channel erosion and incision account for 65 percent of human-caused sediment delivery to Sonoma Creek, as shown in Table 2 of the Amendment. Table 3 shows wasteload allocations distributed among the human actions that contribute sediment to our waterways. Of the 11,600 tons/yr allowed our human actions, 7,800 tons/yr are allocated to channel erosion and incision. Peak storm runoff increases stream flows and raises stream turbidity and suspended sediment (Tables AD-2a through AD-2e, Appendix D, Calculation of Suspended Sediment Loads, Sediment Source Analysis, Sonoma Creek Watershed, California). Therefore

your implementation tables, with their focus on reducing surface erosion, do not adequately address the water management issues at the heart of the chief sediment source. Water runoff management must be priority one of the implementation tables.

We believe it a mismatch that stream channel implementation actions are shown merely as recommended whereas required Implementation Measures focus on *surface erosion* in vineyards, grazing, rural lands, parks/open space/public works, and urban land uses.

We recommend the following actions and changes to your implementation tables:

1. Require all land uses to adhere to a no-net-gain rule for runoff and sediment.

The allocation of a mere 1,500 tons/yr for all stormwater-related wasteloads does not hold urban and residential development sufficiently accountable for the increase in runoff and peak flows resulting from increases in impermeable surfaces and subsurface drainages emptying to ditches and channels (see bottom of Table 3). No-net-gain for runoff is key to achieving wasteload allocations. No-net-gain also does not single out any user group. Currently the implementation tables run heavily to restricting agricultural wasteloads and only lightly to stormwater related wasteloads that consider their linkages to channels. A no-net-gain rule must be supported by City, County, State, and Federal ordinances to be successful in attaining the 80 percent sediment delivery reduction in Table 12. Its presence in the basin plan amendment is critical.

2. Tailor the implementation tables to the results published in the RWQCB staff report.

In Tables 7 through 10, road reductions are the only ones with numeric targets. We question why the 80 or 82 percent reduction is not made for land uses across the board. In lieu of consistency in the implementation tables, wouldn't the road reductions best be written as "Reduce road-related sediment delivery to channels through road restoration protocols as part of WDR waiver conditions"?

3. Name funding sources that support on-the-ground work for the TMDL.

Help prevent an on-paper-only basin amendment by naming funding sources for prioritizing sediment sources for treatment, naming funding sources that will support the required work, and identifying what incentives will be given when treatments are implemented.

Thank you for your efforts to support water quality improvements in Sonoma Creek. We appreciate your attention to these comments and to our valley.

Sincerely,



Richard Dale, Executive Director
Sonoma Ecology Center
20 East Spain Street
Sonoma, CA 95476



March 20, 2008

To: Tina Low
San Francisco Bay Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street
Oakland, CA 94612

Re: **Proposed Basin Plan Amendment**
Sonoma Creek Watershed Sediment TMDL and Habitat Enhancement Plan
Dated February 8, 2008

Dear Tina,

The Southern Sonoma County Resource Conservation District submits the following comments on the Sonoma Creek Watershed Sediment TMDL proposed basin plan amendment. These comments are in addition to our verbal remarks on the Preliminary Staff Report presented at Steering Committee meetings and written comments submitted on Friday, November 16, 2007 (see additional attachment).

Draft Staff Report findings and the Sonoma Creek Watershed Limiting Factors Analysis

In lengthy discussions with our colleagues at the Sonoma Ecology Center, questions immediately arose regarding the RWQCB staff interpretation of data and recommendations presented in the Sonoma Creek Limiting Factors Analysis (Sonoma Ecology Center, Stillwater Sciences, and UC Berkeley Department of Earth and Planetary Sciences. 2006. *Final Sonoma Creek Watershed Limiting Factors Analysis*. Eldridge, CA). The TMDL Draft Report and accompanying Draft Amendment links the solution to fish recovery and water quality attainment directly with the reduction of distal, fine sediment as the chief priority in a spatially extensive regulatory program.

However, the LFA clearly identifies the primary lifecycle bottleneck as the degradation and/or loss of winter and summer rearing habitat for 12-24 month old fish. Furthermore, a comprehensive approach prioritizing the restoration of winter and summer rearing habitat for juvenile fish emerges as the recommended approach to population recovery with sediment listed as a lower priority. These findings and priority rankings for steelhead recovery are not mentioned anywhere in the Draft Staff Report or the Draft Basin Plan Amendment. We request that this disconnect between the data and recommendations in the LFA be addressed, thoroughly discussed and substantiated in the Draft Report, and reflected in the Draft Amendment as necessary.

This selective interpretation and utilization of existing data in the TMDL Draft Report and proposed Amendment has lead to a reductionist approach for steelhead recovery while, at the same time, implementing stringent discharge requirements for distal sources of fine sediment.

The RWQCB Board must consider the monumental challenge of altering the dynamics of this extremely complex system which clearly requires a holistic approach, and a carefully balanced allocation of resources and responsibility.

While the Habitat Enhancement plan does recognize some of the important priorities for steelhead recovery, the staggering costs to the agricultural community for reducing fine sediment delivery by 80% represents a skewed methodology and misplaced commitment of resources.

The Draft Basin Plan Amendment recommends public funding be sourced to cover 75% of the Agricultural Water Quality Control Program with agricultural businesses picking up the tab for the estimated \$6,000,000 to \$12,000,000 of funding required to reduce sediment supply and enhance habitat. The price we pay for food will *never* cover the costs of what we want farmers to do for the environment. Given the extreme fragility of agriculture in the Sonoma Creek Watershed, the implementation of your proposed sediment management measures puts the agricultural community and the resources they care for at serious risk.

The focus of the TMDL regulatory program and attendant resources should be directed toward the channel which is the main source of fine sediment (see Sonoma Ecology Center Comments and Sediment Source Analysis). We predict that placing the bulk of fine sediment reduction firmly on the shoulders of the agricultural community could have potentially disastrous effects on future non point source pollution reduction, resource conservation and sustainable land management efforts. Skyrocketing land values, fuel and operational costs has resulted in a tenuous and extremely fragile economic environment for agricultural producers and working landscape managers. Every farm that is lost to development and/or multiple lot-splits results in the permanent loss, fragmentation and/or degradation of natural resources while exponentially increasing the challenges of future conservation efforts on multiple small parcels.

We also reiterate our comments from November 2007, and on urge the RWQCB Board to consider seamless integration of the goals of the TMDL with formidable, existing efforts in the Sonoma Valley Watershed. The Southern Sonoma County Resource Conservation District also concurs with the comments and opinions submitted by the Sonoma Ecology Center related to the interpretation and obvious disconnect between the Sediment Source Analysis and Draft Amendment implementation tables.

We appreciate your work with the Steering Committee to date and look forward to working with you in the future to address these issues.

Sincerely,

Leandra Swent
District Manager



Friday, November 16, 2007

Tina Low
North Coast Regional Water Quality Control Board
1515 Clay St. Suite 1400
Oakland, CA 94612

RE: Written comments and questions regarding the Sonoma Creek Sediment TMDL and Watershed Enhancement Plan

Tina:

The Steering Committee has reviewed the Sonoma Creek Sediment TMDL & Enhancement Plan Preliminary Project Report and submits the following comments and questions for your consideration:

1. Focus and allocation of resources in the basin planning amendment and the enforcement approach for surface erosion reduction.

The Steering Committee is concerned about the fundamental approach of this Basin Plan amendment and the attainability of the proposed objectives for sediment reduction using a traditional regulatory approach. The sediment source analysis identifies 87.5% of the sediment delivery to the creek as a result of natural processes (48.8%) and anthropogenic and natural channel erosion and incision (p. 24, Table 5.) Furthermore, 61.5% of the *total* sediment delivery to the channel is a result of channel erosion and incision – both human and naturally occurring. The TMDL sets a target for 75% reduction in sediment input while only 12.5% of the estimated delivery is a result of discharge from human induced upland land management practices outside the channel. Historical, anthropogenic induced hydromodification of the mainstem and tributaries has significantly changed the dynamics of the system. This is a much larger problem that will require an integrated approach to address a number of issues – sediment delivery being one of them.

If we proceed under a regulatory approach, significant resources and effort will be directed towards reducing anthropogenic, upland sediment discharge which accounts for a small minority of the total in physical locations which are least responsible for input. The Steering Committee feels that this approach is highly flawed and will render the TMDL targets completely unattainable within any reasonable time frame – while misdirecting and expending precious resources in the process. If over 70% of the total sediment source is a result of channel erosion and incision, then clearly that is where our immediate attention should be focused if we hope to successfully meet the proposed targets. We feel that an approach where high impact restoration projects in the channel should be judiciously balanced with reducing low level, chronic surface erosion inputs. These efforts must also be fully integrated with supplementary efforts in the watershed to solve other critical issues including ground and surface water management, flood control, and other non-point source pollution problems.



2. TMDL basin/enhancement planning and integrated efforts in the watershed

Substantial efforts are underway to unify restoration and enhancement efforts in the Sonoma Creek watershed through an integrated regional watershed management plan (IRWMP). This would eliminate duplication of efforts, encourage cooperation, identify data gaps, prioritize needs, and establish logical order and realistic timelines for projects. The Sonoma Creek Enhancement Plan (1997) is currently undergoing an update and revisions. It only seems natural that any new activities in the watershed be integrated into and vertically aligned with the Sonoma Creek Enhancement Plan for obvious reasons. Water Board staff have been invited and are strongly encouraged to participate in the update process.

Integration of the TMDL Enhancement Plan with existing work in the watershed would also address the issue of stakeholder outreach and input. We feel that this area is particularly in need of attention as the TMDL Enhancement Plan moves forward. Participation in the existing, integrated efforts in the watershed would furnish an opportunity to connect with local stakeholders already involved in ongoing and related projects. This, in turn, would provide the Water Board with valuable feedback and suggestions from stakeholders who have been involved in these types of projects for decades.

The steering committee acknowledges that excess sediment is an important component within a larger, interrelated set of issues facing the Sonoma Creek Watershed and its residents. The entire system has undergone dramatic human-induced modifications in the last century. As such, a systemic approach will be required for stable, long-term solutions. The TMDL Enhancement Plan must work within an integrated system if we hope to realistically and permanently meet the targets it has set.

3. Adaptive Management and Global Climate Change

Natural resource planners in California are beginning to consider how climate change could affect existing resources and interplay with conservation and restoration efforts. The Steering Committee is unclear how or if the Sonoma Creek TMDL will adapt to climate change and emerging trends over the next 10-20 years. We are also concerned about how the TMDL will adapt over time and continue to address sediment issues in an integrated fashion with other efforts in the watershed. Up front cooperation and “buy-in” with the Sonoma Creek IRWMP could address this issue.

Regards,

John Guardino

Agricultural Scientist

Southern Sonoma County Resource Conservation District

Tina Low - Notes on Staff Report and Project Plan

From: "keith hanover" <jandkhanover@earthlink.net>
To: "Tina Low" <TLow@waterboards.ca.gov>
Date: 2/16/2008 7:15 PM
Subject: Notes on Staff Report and Project Plan

Ms. Tina Low,

I have read through both of these documents and find that the importance of the marshes that have been drained throughout the Sonoma Valley watershed are not being addressed in a manner befitting their importance. Unless I missed this in the documents I believe this is one of the most critical factors which addresses all of the issues of the health of this watershed from sediment control to breeding grounds of fish food to flood control to aquifer recharge. I do not wish to diminish the important work which has been compiled by all of these groups and believe all of these projects are necessary but large marshes are absolutely critical to restore this watershed's historical balance.

Sediment may be reduced by spreading the high flows around the valleys many roads with the addition of indigenous marsh plantings to strain the turbid waters the way the valley did a century ago recreating a new manmade alluvial fan. This will also slow the waters down and allow the sediment to drop higher up the valley where it belongs. Reconnecting the Sonoma Creek to the Kenwood marsh and adding new micro marshes around vineyards and down the many roads throughout the valley would increase recharge, reduce the high damage flow in the main channel during heavy rains, and correct many of the problems created over the last century. I wish that this important portion of a balanced watershed be placed higher on the project lists and studies be conducted on how best to implement the reinstatement of this critical factor of a complete watershed. I have happened to notice the reduction in bats throughout the valley over the years which identifies that food sources from the marshes are waning as the marshes dry up or no longer recharge enough to continue to produce food throughout the summer months. We could make the Creek's waters pristine but if there's no natural food source the fish will not thrive or survive as they did 100 years ago.

I hope this email proves to be helpful and in no way wish to criticize all of this great work its just that I kept looking for how the missing marshes would be addressed and did not see a definitive project or associated study of their importance.

You do not have to reply to this email as I'm sure you are very busy but I felt it necessary to comment on this report as asked and hope to attend the meeting in Sonoma on the 21st.

Sincerely,

Keith M. Hanover
Upper Kenwood Stewardship Lead



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

March 21, 2008

Tina Low
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Dear Ms. Low:

Thank you for the opportunity to comment on the Proposed Basin Plan Amendment and Draft Staff Report for the Sonoma Creek Watershed Sediment TMDL and Habitat Enhancement Plan. We support the San Francisco Bay Regional Water Quality Control Board's (Water Board) efforts and urge the Water Board to adopt the TMDL. A summary of our comments on the draft documents is below.

- 1) In the Draft Staff Report, please clarify the TMDL and express it as a mass per unit of time. A percentage of natural load can be used, if the natural load is clearly defined in a mass per unit of time. EPA recommends that TMDLs include a discussion of the total maximum *daily* load that must be achieved to attain water quality standards.
- 2) In the Draft Staff Report, please clarify the problem statement, in particular, the roles played by various sediment sources, and the linkages between the problem statement, numeric targets, source analysis and the TMDL and allocations. While the TMDL appears to emphasize fine sediment, the Report does not appear to support the notion that fine sediment is problematic in the watershed; rather it appears that channel incision is a more important issue, which could reflect a sediment-starved system.
- 3) Please clarify why the numeric targets were chosen as the best indicators of success. For example, it appears that the permeability target may be duplicative of the bulk sampling targets. Additionally, the analysis appears to suggest that the permeability target may not be achieved by the TMDL; targets should be set at a level that, when attained, reflect attainment of the water quality standards.

- 4) Please explain why the water quality indicators in the Habitat Enhancement Plan are different than the numeric targets in the TMDL; please explain how they relate to each other.
- 5) Please clarify the relationship between the sediment TMDL and allocations with the various sections of the TMDL analysis and the various portions of the Implementation Plan. We suggest distinguishing between sediment-related and non-sediment related issues, to ensure that support for the sediment-related portions of the TMDL are not overshadowed or confused by the more holistic and general approaches contained within the Habitat Enhancement Plan and other components of the document.
- 6) Please clarify and revise the Draft Staff Report as necessary, the Source Analysis, TMDL, Linkage Analysis, Load Allocations, and Implementation Plan to ensure consistency concerning the descriptions of and values for source categories.
- 7) Please clarify the differences between the Implementation Plan, Habitat Enhancement Plan, the "Habitat Enhancement Plan within the Implementation Plan," and "restoration priorities." We suggest strengthening the connections between the TMDL and allocations with the Implementation Plan.

More detailed comments are enclosed, prepared by Janet Parrish of our staff; she has extensive experience with sediment TMDLs in the North Coast Region. We appreciate the great deal of work that has gone into the development of the Proposed Basin Plan Amendment and Draft Staff Report for the Sonoma Creek Watershed Sediment TMDL and Habitat Enhancement Plan. If you have any questions, please contact me at (415) 972-3448, or Diane Fleck at (415) 972-3480.

Sincerely,



Peter Kozelka
EPA Region 9 TMDL Coordinator

Enclosure

Detailed Comments and Questions on the Sonoma Creek Sediment TMDL and Habitat Enhancement Plan

TMDL Process and Definition. Chapter 1 describes the process undertaken to develop the TMDL for this document. On p. 6, we would like you to correct the following statement: "A total maximum daily load (TMDL) is a water body-specific cleanup or restoration plan that targets the pollutant causing impairment (in this case sediment)." This document does contain an implementation plan that includes a restoration plan for sediment. However, a TMDL is more correctly described as a "total maximum daily load," and it is more accurate to state that the Sonoma Creek TMDL defines the allowable load of sediment (expressed as a mass) that can be discharged into Sonoma Creek while ensuring attainment of water quality standards. Moreover, it is misleading to state that the TMDL is "a percentage of the natural background sediment delivery rate," (p. 6). However, it is appropriate to describe the determination of the loading capacity and TMDL to include a process of determining a natural background delivery rate, and to set the TMDL by calculating a rate over that natural load that would still result in attainment of water quality standards.

This sediment TMDL attempts to take a whole-watershed view of Sonoma Creek, focused primarily on steelhead habitat. While we encourage this holistic approach, we believe the TMDL could be greatly strengthened by ensuring that the issues related to the sediment impairment are clarified and highlighted, and are distinct from other issues that could confuse the issues of sediment as a pollutant (and as the subject of the TMDL). Throughout the document, it is sometimes unclear whether this is a sediment TMDL or a fish habitat enhancement plan that also describes sediment loads. Accordingly, it is important, throughout the document, to ensure that the reasoning for the elements of the sediment TMDL is highlighted and clarified.

Problem Statement. Chapter 3 contains an overview of the sediment problems, summarizing them as: low populations of steelhead, channel incision and widening, and excessive fine sediment in potential steelhead spawning and rearing sites. It may be helpful to strengthen the descriptions of relationships between sediment, which is the identified pollutant, and the identified sediment-related problems. Because the document also incorporates general habitat concerns that are unrelated to sediment as a pollutant, in some cases it is unclear which habitat problems are clearly related to sediment as a pollutant. We would also appreciate a little more information to support the problem statement; it appears that the problem is primarily related to a full range of historic land uses, and development of ditches in the 1800s, both of these described in a few short sentences. It is not very clear how you concluded that fine sediment contributes to the sediment problem, and it is only somewhat more clear how you concluded that channel incision contributed to the sediment problem.

Because many of the species found in the Sonoma Creek watershed are listed under the Federal and State Endangered Species Acts, you might find updated information on the species. Given that you are focusing on steelhead, it will be very useful to explain why this focus will serve to achieve water quality standards. Please clarify if steelhead is the most sensitive species.

Section 3.3, discussing salmonid life cycle and water quality requirements, could be strengthened by clarifying the problem statements. For example, the adult migration section states that water depth may be inadequate, but it is unclear, given the earlier statements that tributaries were not historically connected to the mainstem, whether this reflects natural conditions or disturbed conditions.

Please clarify the references to sediment as a pollutant in the limiting factors analysis section. For example, three limiting factors are cited: deposition of excess sediment in the stream bed and changes in habitat structure resulting from bed and bank erosion; stressful water temperatures due to lack of shade, loss of deep pools and low base flow; and migration barriers and low summer flows. It is not clear whether this is a different set of issues than that included in the original problem statement (low steelhead population, channel incision/widening, and excessive fine sediment in spawning/rearing sites). Also, it is not clear whether fine sediment deposition and low permeability, is at issue, except for the comparison with data from the Napa River. Clarifying the sediment issues should include resolving the apparent contradiction in stating that channel incision is problematic, while at the same time pool filling, (apparently) due to fine sediment, is problematic.

It is likely that clarifying the findings of the limiting factors analysis related to sediment, drawing from the sediment source analysis, and including more of the more information to support statements will assist with clarifying the problem statement. We appreciate the effort it takes to look at a watershed holistically; however, it is important that the *sediment* TMDL issues are highlighted in this effort.

Water Quality Standards. The text states that narrative water quality objectives for sediment, settleable material and population and community ecology are not attained, and that the narrative objectives for turbidity or suspended sediment are not violated. However, Table 3 implies that only the objective for "suspended material" are violated; the note below the table states that "italicized bold text indicates water quality objective is violated," and only "suspended material" is bold and italicized.

Numeric Targets and Desired Conditions. There are four numeric targets identified: streambed permeability greater than or equal to 7,000 cm/hour at potential spawning sites, decreasing trend in the volume of fine sediment deposited in pools, sediment smaller than 0.85 mm diameter comprising less than 14% of total bulk core samples, and sediment smaller than 6.4 mm diameter comprising less than or equal to (or less than—it is stated both ways) 30% of total bulk core samples. None of these appear to address the problem of channel incision/widening.

The use of fine sediment bulk samples has been adopted in many recent sediment TMDLs. However, the only information presented (p. 34) suggests that these targets are already being obtained at spawning sites, and that these values correspond with a survival-to-emergence rate of 50%. This information seems to contraindicate the need for reduced fine sediment in spawning areas. Please clarify.

It is unclear why the permeability target is chosen, other than its use in the Napa River (p. 29), and to serve as an additional indicator of fine sediment, which may be adequately covered by

bulk sample monitoring, without the additional expense of duplicative monitoring. The explanation discusses survival of incubating salmonid eggs and larvae, although the limiting factors discussion in Chapter 1 highlights the juvenile rearing stage as limiting (it does not mention the incubation stage as limiting). Permeability at 18 potential spawning sites was estimated to correlate to a survival-to-emergence rate of 30% or greater, which may suggest mild, though not severe, impairment. (This is based, apparently, on coho or Chinook, and not on steelhead, which is the focus of the TMDL). The desired permeability target is related to a 50% or 60% survival-to-emergence rate (it is stated both ways, p. 30), which would indicate good conditions for survival-to-emergence; however, given that suitable spawning habitat itself is apparently limited (e.g., discussion on p. 30), and given the likelihood that this target evidently would be attained easily if the bulk sample targets are attained (Figure 3 indicates that 14% fines may correlate to a permeability value of less than 50 cm/ min, or less than 3,000 cm/hour), it is not clear whether this target will add value. Moreover, the third rationale for choosing this target, that it may be attained if the TMDL is 125% of natural background sediment, is neither explained (here or in the Linkage Analysis), nor is it believable. The TMDL/Allocations section, in fact, indicates that the permeability target will not be attained.

The discussion of the pool filling target states that fine sediment deposition "does not cause a biologically significant reduction in pool volume" but "blankets most of the pool bottoms," and that the "mean value for pool filling in the Sonoma Creek watershed (8.5%) is within the range or other watersheds underlain by bedrock types that do not produce abundance sand and granules." These statements seem to contradict earlier statements that fine sediment, or pool filling, or channel incision, is problematic. Please clarify these statements.

Source Analysis. Table 5 shows the "current condition" for sediment delivery; Table 5b shows "urban runoff" values, apparently related to NPDES permits; and Table 6 shows current conditions and allocations for the TMDL. These tables should be consistent and clearly show the connections. However, the list of sources, degree of rounding, and in some cases, the total numbers vary somewhat, resulting in additional confusion. In addition, it is not clear what the "current conditions" period is based upon. How is sediment delivery from natural processes estimated from 1800 (p. 38)? Is this the period reflected in Table 5? How is this reconciled with, for example, a period of 1935 (or 1937, on p. 53) -2005 for landslides, based on aerial photographs? The discussion cites periods from 1850-2005 (55 years), or "during the past 70 years," as well, so it would be helpful to clarify which time period was used. If the time period called "current condition" is truly based on a much longer (historical) time period, it might be helpful to have some way to estimate whether the more recent rates are substantially different; if recent sediment delivery rates are much lower than during the longer historic period, then perhaps current (i.e., recent) conditions are closer to the allocations already, and implementation actions could be more flexible.

Urban stormwater runoff in Table 5 totals 1,000 tons/year, but 1,500 tons/year in Table 5b; wasteload allocations, based on NPDES permits, totals 1,500 tons/year in Table 6. The tables are reproduced below for reference. Section 6.4 discusses "channel incision, gully erosion and landslides," and concludes, for example, that sediment from channel bed incision, bank erosion and gullies is 69,000 tons /year. We are not able to reconcile this with the summary in the table. Thus, clarifications and simplifications of the information could be presented.

Source Category	Table 5	Table 6	Allocations		Calculated	
	Current	Condition	tons/year	% Natural	Tons/mi ² /year	% reduction
Channel erosion, incision	25,000	25,400	25,400	49%		
Landslides	4,000	4,100	4,100	8%		
Colluvial bank erosion (Table 5) or soil creep (Table 6)	17,000	16,600	16,600	32%		
Surface Erosion	6,000	6,200	6,200	12%		
TOTAL NATURAL	52,000	52,300	52,300	100%	313	0%
Channel incision, gully erosion (Table 5) or channel erosion. Incision (Table 6)	43,000	43,300	7,800	15%	47	82%
Landslides	1,000	900	200	0.4%	6	78%
Surface erosion from vineyards, row crops, rangelands (Table 5); includes unmanaged areas (Table 6)	9,000	8,600	1,600	3%	54	81%
Roads/stream crossings	11,000	11,200	2,000	4%	1.2	82%
TOTAL HUMAN LOAD	65,000	64,000	11,600	22%	70	82%
TOTAL LOAD ALLOCATIONS			63,900	122%	385	45%
Urban stormwater runoff	1,000	1,500	1,500	3%	9	0%
TOTAL HUMAN + STORMWATER	66,000	65,500				
TOTAL	118,000		65,400	125%	394	45%

The discussion of surface erosion, roads and stream crossings, and model assumptions is a little confusing (pp. 47 ff), and difficult to reconcile with the results that are presented in Tables 5 and 6. For example, it is possible that the decimal points of some of the surface erosion cover factors may have been misplaced (e.g., is it possible that average cover values of 0.037 and 0.015 for vineyards and grazing areas is intended, rather than 0.37 and 0.15, respectively?). This would better explain why the value of 0.02 was chosen (earlier stated as 0.2). Further in the discussion, average sediment delivery ratios are similarly confusing (5 percent? Or 0.50, which would imply 50%?). Road mileages, stream crossings, and total values of sediment contributed seem out of synch with the summaries in the table, and some of the assumptions that were made were difficult to follow. It may be clarified by emphasizing the conclusions to the analysis, then explaining why other assumptions were discarded (rather than including the draft results, which are much different than the results in Tables 5 and 6).

Clarifications (and corrections, if necessary) will be helpful. This will also help to strengthen the linkages between the problem statement, source analysis, target selection and TMDL/Allocations.

TMDL, Linkage Analysis and Allocations. The text correctly states that the TMDL is the total sediment load that can be discharged into Sonoma Creek and its tributaries without violating water quality standards. It is acceptable to calculate the TMDL by considering natural loading rates. However, Section 7.2 proposes to *express* the TMDL as a percentage of the natural background rate. EPA recommends that TMDLs be expressed as a total maximum *daily* load. Any uncertainty in the determination of the TMDL can be discussed in the Margin of Safety; if needed, the TMDL can be revised in the future if new information demands it. Please express the TMDL as a total maximum daily load. You may also additionally express it as an annual average load.

It is curious that the document generally, and the TMDL section specifically, emphasizes reduction of fine sediment, suspended sediment and turbidity, given that information provided in earlier sections suggested that water quality standards for suspended material and turbidity were not violated. Please clarify. Although it is possible that the permeability target is not needed, the TMDL discussion reveals that setting the TMDL at 125% of natural background is not expected to meet the target (5,800 cm/hr is expected, and the target is 7,000 cm/hr). Please reconcile this difference.

Margin of Safety, Seasonal Variation and Critical Conditions. The discussion of uncertainty that is included in the Sediment Source Analysis could potentially assist in the discussion in these sections. It is not clear from the text whether conservative assumptions were used, and whether uncertainty is accounted for in the development of the TMDL (see notes in the Source Analysis sections).

Implementation Plan. We appreciate that the Water Board has developed an implementation plan (included as Chapter 8 in the TMDL document), and we applaud the long-term efforts that have been undertaken to include all stakeholders in this process. There are a number of references throughout the document to the Implementation Plan, the Habitat Enhancement Plan, the TMDL and Habitat Enhancement Plan, the Habitat Enhancement Plan within the Implementation Plan, and the "restoration priorities" for the watershed. While we applaud the watershed approach to attainment of water quality standards, we are confused about the role of the Habitat Enhancement Plan vis-à-vis the Implementation Plan, and we believe it will be helpful to clarify the differences throughout the document. Some of the strategies in this section appear to be contraindicated by the problem statements. For example, significant problems, apparently, are channel incision/widening/bank erosion, and inadequate water depth. The Habitat Enhancement Plan appears to suggest that the ideal channel form would be wider and shallower. Please clarify/reconcile these apparent contradictions.

Section 8.4, Implementation Strategy, states that the TMDL and Habitat Enhancement Plan "will include implementation measures." Do you mean that it *does* include these measures? In addition, please clarify the role of Tables 7-10, *vis-à-vis* the Implementation plan text.

Section 8.5 is titled "Sediment Reduction and Control/New Regulatory Programs," but it appears that all the programs that are discussed are pre-existing, and the new programs do not appear to be regulatory. Please clarify.

In general, it might be helpful if the relationships between the Source Analysis, the TMDL/Allocations, and the Implementation Plan are clarified. For example, the largest source of sediment apparently is channel erosion/incision. However, it is unclear what will be undertaken to reduce the sediment, other than "attenuation of peak flow rates" through future NPDES permitting and "avoiding direct impacts," which evidently can be produced by a wide range of activities. It is not clear what activities will be classified as avoiding direct impacts, nor how that strategy will ultimately result in large sediment reductions that are needed.

Roads and stream crossings constitute the second greatest quantity of sediment. The text states that Sonoma County does not have written policies on road construction, maintenance or stream crossings. Development of programs to reduce sediment discharges from roads is needed, and this need appears to be under-represented in the implementation plan. Note that the text at p. 70 states that the "performance standard" is to reduce sediment to 6 tons per road mile per year, but this figure appears to be at odds with the allocations in Table 6, and Table 7 states that the current estimate is 34 tons per mile per year. Also, the number of road miles totals 972 (p. 79), including either 454 or 519 miles (p. 53) of unpaved roads. Please reconcile these figures with those in the Source Analysis.

Surface erosion from vineyards, grazing and other agricultural sources together make up the next largest category of sediment discharge. Given the apparent success of the Fish Friendly Farming Program in the Napa River watershed, the erosion ordinance applicable to new vineyards (and given the lack of attention to road sources), the proposed regulatory program suggested for existing vineyards alone seems burdensome.

It is not clear whether the proposed requirements on p. 71 are in addition to those anticipated on pp. 72 ff. Regulations proposed for livestock grazing seems similar, although somewhat less burdensome. Please clarify if Water Board anticipates including standard BMPs as part of conditions for Waste Discharge Requirements (WDRs). It may be helpful to emphasize that compliance with the conditional waivers of the WDRs that may be adopted by the Water Board (Table 7) will assist in clarifying that every landowner will not necessarily be required to report extensively. Perhaps identifying potential standard BMPs, if they are proposed, which would ease the inventory burdens for smaller vineyard and ranching operations, could be included. A sample sediment inventory or Ranch Water Quality Plan could also be developed in the future, to further encourage the collaborative efforts that have gone into the development of this TMDL and the Habitat Enhancement Plan.

Please clarify how the Habitat Enhancement Plan, Section 8.6, fits in to the TMDL and implementation plan, and its relationship to the sediment load reductions identified in the TMDL. It seems to be an important part of the Implementation Plan, although some of the items identified in the plan appear to be in conflict with the TMDL; additional clarification could be helpful. For example, the water quality indicators are completely different than those in the TMDL, and appears to suggest that more flooding should occur throughout the Sonoma Creek floodplain and valley, and that the channel needs to be wider and shallower. This appears to contradict the notion that excess sediment is currently in the channel and that the channel is potentially too shallow for juvenile salmonid migration. While acknowledging the need for preventing and reducing channel incision, the Habitat Enhancement Plan appears to focus on

potential (as-yet unidentified) restoration projects to stabilize banks, improve habitat complexity, increase riparian canopy and large woody debris, increase the frequency and depth of pools, and removing fish migration barriers. Because the Habitat Enhancement Plan addresses issues beyond the sediment reductions called for in the TMDL, it may be helpful to clarify its role in sediment reduction specifically.

Tables 7-9 appear to be similar, and include similar requirements. The proposed requirements could be simplified, and potential conditional waivers for WDRs could be included, if that is a potential alternative to the extensive reporting suggested in the tables. Does Table 11 essentially suggest that no change is proposed over current NPDES permit limits?

References. The document could be strengthened by ensuring that the correct references are cited. For example, the limiting factors analysis section cites SEC 2004, which is the *draft* limiting factors analysis, while a later reference listed in that section but not, apparently, used is the *final* analysis. If nothing changed substantively between the draft and the final, it may be more accurate (and more reassuring to the reader) to refer to the final report.



1315 K STREET
MODESTO, CALIFORNIA 95354-0917
TELEPHONE (209) 527-6453
FAX (209) 527-0630

March 20, 2008

Tina Low
State Water Resources Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Dear Ms. Low:

Western United Dairymen is a statewide dairy trade association representing approximately 1,100 dairy farm families who produce about 60% of California's milk supply. Dairies within the Sonoma Creek watershed are members of our association.

After attending public meetings hosted by the San Francisco Regional Water Quality Control Board, we have concerns about the proposed Sonoma Creek Sediment TMDL and Habitat Enhancement Plan. A key element in the plan is the assumptions used to determine the natural background level in order to establish a measure of habitat impairment in the region. It appears that many of the assumptions used to establish this level were not valid or scientifically based. Realizing the importance of this element as a basis for regulations, we believe that it is imperative that a model based on sound assumptions be used.

Dairying and grazing management has changed significantly. Substantial attention by dairy operators is focused on practices to improve and maintain land productivity, which helps our area stay economically viable in a changing dairy marketplace. More forage harvested locally means less feed will need to be trucked in from other areas, thus lowering producers' costs and improving the local economy and environment. Information from the California Department of Food and Agriculture shows that in 1990 there were 118 dairies in Sonoma County; there were only 71 in 2007. The remaining dairies have been able to continue in business by adapting to a changing environment and increased regulatory requirements. There has been considerable improvement in grazing land management, and producers need to get credit for what they have already done.

New regulations means there will be additional costs to producers to implement them. Costs to agricultural businesses over 20 years are estimated at \$300,000 to \$600,000 per year. While some public funding will be available, it is limited in quantity and is always oversubscribed.

The Implementation Plan on page 73 discusses developing a Waiver of Waste Discharge Requirements for Discharges from Grazing Lands. The Tomales Bay watershed is mentioned as currently developing a program for grazing lands.

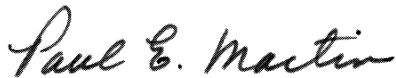
Tina Low
March 20, 2008
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Instead of developing a new program, Western United Dairymen would encourage coordination with the Tomales Bay Grazing Waiver Program. Dairymen are already complying with the Regional Board's Confined Animal Facility Waiver of Waste Discharge Requirements, and when a grazing waiver is available, we suggest that the two be combined to reduce paperwork.

On page 75, the term "exclusion fencing" must be replaced with with "control fencing". Riparian pasture systems, where cattle are used to graze riparian areas, have been proven to be one of the best strategies to manage the health of a riparian system. The reasons are varied, but the end result is that in order to maintain a healthy root system for soil stabilization that comes with fresh new grass growth, the thatch from the previous year's growth must be removed, preferably by grazing, to stimulate successful seedling establishment in the coming year. The intent should be to recognize proven grazing conservation practices by utilizing fencing to control grazing, not completely exclude it.

Western United Dairymen would like to thank the San Francisco Regional Water Quality Control Board for the opportunity to comment on the Sonoma Creek Sediment TMDL and Habitat Enhancement Plan. Our dairymen are committed to being good stewards of the land, as shown by their willingness to modify management practices and to become more knowledgeable about water quality issues. Western United Dairymen remains available to continue working with the Regional Board to develop programs that reward dairymen for their self-directed actions to improve the environment.

Very truly yours,



Paul E. Martin
Director of Environmental Services

PM/kmr

cc: Michael Marsh