Appendix G

April 09, 2008 Testimony Hearing before the Water Board

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

1515 Clay Street, Suite 1400

Oakland, California 94612

BOARD MEETING

April 9, 2008

Item 7:

Proposed Amendment to the Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region to Establish a Total Maximum Daily Load (TMDL) for Sediment in Sonoma Creek and Implementation Plan for the TMDL and Related Habitat Enhancement Goals.

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P R O C E E D I N G S

CHAIR MULLER: The team is back together here, so we're moving on to --

MR. WOLFE: Actually, before we do --

CHAIR MULLER: Okay.

MR. WOLFE: -- Item 7, I'd like Dyan to introduce David Clegern from State Board.

CHAIR MULLER: Oh, I'm sorry.

MS. WHYTE: No. Here's David here behind us. David is the new Public Information Officer at State Board. They're actually -- That unit now is fully staffed and David is assigned specifically to our region, which is a real treat. We haven't had that in the past, so we've been working closely with him already. I've shared some of Mr. Peacock's suggestions with him and we're already talking about that. He's already been out in the field in our region covering a lot of press for us. He comes

with a broad background of work in television, radio, reporting, so I think he's going to be a real asset, and we plan on using him quite a bit.

CHAIR MULLER: Good. Thank you. David, welcome. We're kind of a unique little region here. We just have a little bay and little watersheds and things like that, and then we have a mothball fleet, dioxin, mercury, and selenium. What else do we have?

BOARD MEMBER MCGRATH: Houseboats.

CHAIR MULLER: Houseboats.

VICE CHAIR YOUNG: Restoration programs.

CHAIR MULLER: Restoration Programs. So just whatever news -- Oil spills and anything else you want along the way. Just put out good news. That's all. But thank you and we're excited about having good press, so we will definitely keep him in close contact and I look forward to it. So I think we're going to move on to Item 7 --

MR. WOLFE: Right. Item 7 --

CHAIR MULLER: -- at this time.

MR. WOLFE: -- is again another testimony hearing and this would be on the proposed amendment to the Basin Plan to establish Total Maximum Daily Load for the Sonoma Creek watershed for sediment and

also an implementation plan and habitat enhancement plan, so I'd like Tina Low to make the staff presentation.

MS. LOW: Thank you. Good morning, Chairman Muller and Members of the Board. I'm Tina Low, a Water Resources Control Engineer in the TMDL and Planning Division. I'm the Project Manager for the Sonoma Creek watershed sediment TMDL and habitat enhancement plan.

It's my pleasure to be here today on behalf of the project team to present our proposed plan to reduce sediment and enhance habitat in Sonoma Creek and its tributaries. It may sound familiar to some of you, as it is very similar to the Napa River sediment TMDL and habitat enhancement plan the Board adopted last year.

I will start with a description of the Sonoma Creek watershed and its biological diversity. I'll then describe the problem of excessive fine sediment and related impacts on native steelhead trout and other native species. Then I will summarize the main elements of our proposed Basin Plan amendment, which includes both a sediment TMDL and a habitat enhancement plan. The habitat enhancement plan is a framework to support native

fish recovery. I'll then discuss measures included in the implementation plan. And finally, I'll conclude with an overview of the themes of the comments we received and what the next steps will be.

The Sonoma Creek watershed covers 166 square miles ranging in elevation from sea level to the Peak of Bald Mountain. The watershed lies in a valley that's bounded by mountains. The main stem of Sonoma Creek flows in a southeasterly direction from the headwaters in Sugarloaf State Park here in the north, flows through Sonoma Valley, before discharging into San Pablo Bay.

The watershed includes 465 miles of mapped streams and provides critical habitat for an exceptionally diverse assemblage of native fish and aquatic wildlife species, notably including steelhead, Sacramento splittail, white sturgeon, fall-run Chinook salmon, Pacific lamprey, and California freshwater shrimp. The watershed was designated a Critical Coastal Area by a statewide multi-agency committee in recognition of both its need for nonpoint source pollution protection and for its high wildlife habitat value.

The decline of the steelhead run in this

watershed was a major factor for listing Sonoma Creek as impaired by sediment and is a major driver for our proposed sediment TMDL and habitat enhancement plan. Sonoma Creek supported large numbers of steelhead trout until about the 1940s. Back in the 1920s and '30s, abundant fish were reported and the fishing limit was 25. Now the creek is closed for fishing year round due to the need to conserve the relatively small remaining population.

Steelhead and other native species need a healthy stream in order to succeed. And the next slide illustrates the different kinds of habitat conditions that are good for fish. Fish need different types of stream habitat at different stages in their lifecycle. A healthy stream, as we see here in this photo, shapes its own bed and banks and forms a floodplain, and it's characterized by flowing water at temperatures that are favorable for fish habitat, plenty of riparian vegetation providing shade, food, insects, bank stability, and large woody debris. We can see in this photo that adjacent to the channel there is good riparian cover.

We also want channel topography that is

complex, alternating between shallow and deep areas, and fast and slow water to provide favorable sites for spawning, resting, feeding, and refuges from predators and high flows. Here there's a large gravel bar in the middle of the photo with adjacent shallow, fast-moving water that flows through a rocky area called a riffle. This then transitions to a deep pool.

We also want clear gravel deposits where fish can lay their eggs. And important also is a floodplain that protects bed and banks during high flows, provides areas for fish to feed and rest. In the reach pictured, the river is connected to its floodplain behind and beyond the gravel bar. When these conditions are not present, the fish may be placed under stress.

In the Sonoma Creek watershed, we have identified five problems contributing to the decline of native fish in the watershed. These problems are, there is too much fine sediment in the streambed, which decreases fish egg survival. We also see erosion of the bed and banks of Sonoma Creek and the lower tributary reaches, which greatly reduces the quantity of spawning and rearing habitat for native fish and aquatic species. We also see

low flows in the dry season, which limit the growth and survival of juvenile steelhead. During fish count studies, juvenile trout were -- juvenile steelhead were found to be stranded due to low flows.

There are also fish passage barriers, which can block access to and from spawning areas as well as movement within the system to feed and to rear. There's also a lack of large woody debris and in-stream shelter in the channels, which is important because large wood helps form the complex habitat that fish need.

Sediment and erosion are a natural phenomenon, and a challenge that we face is to distinguish between natural processes and those that are human caused or human accelerated. There are five major sources of sediment to Sonoma Creek and four are illustrated here. The fifth will be shown in the next slide. The first is an example of natural erosion. And we see here a large landslide. This is an example of a natural process in which water flows and forms a landscape. The next sources are due to human actions. Here we see road-related erosion, which can come from both dirt roads and stream crossings. In this particular photo we can

see loose sediment on the surface as well as eroded slope on the left side.

Surface erosion from land uses such as urban and residential areas, grazing lands, and, shown here, vineyards. Here near the base of the trees we see some bare exposed slopes where sediment could be carried off by rainfall. Landslides can also be human caused or accelerated. The photo on the left on the bottom was taken from the upper Sonoma Creek watershed and shows a creek bank where a large mass of sediment has collapsed and fallen into the stream. A possible culprit is the road located above the site.

The fifth and largest sediment source category is channel instability as evidenced by bed and bank erosion. The person in this photo provides scale for the extent of the lowering of the streambed of Sonoma Creek during the historical period. Bed and bank erosion is caused by many factors. It's the aggregate of all those activities in the watershed that change flow patterns and cause erosive forces, as well as those that directly disturb the riparian area. Based on the results of our sediment source analysis, we conclude that the total sediment load is over twice the natural load.

In other words, more than half of the current sediment load results from land uses.

The major human-caused sediment sources to Sonoma Creek watershed are bed and bank erosion, road and stream crossings, and surface erosion. As the pie chart shows, about two-thirds of all human-caused sediment input is related to bed and bank erosion along the creek and tributaries. The adverse effects of bed and bank erosion on sediment load, as well as habitat diversity, need to be addressed to support conservation of native aquatic species. Roads and stream crossings make up another 17 percent with surface erosion making up another 14 percent. We also have smaller human-caused sediment sources including landslides contributing about two percent and a suite of urban sources that result in urban runoff that total about another two percent.

In developing the plan to address the sediment impairment listing, we realize that by itself a sediment TMDL was not going to restore the fishery. Based on our scientific findings, we feel obligated to develop a holistic plan to enhance steelhead and the overall health of the native fish community in this watershed. The photo that you see here is taken of juvenile steelhead trout in the

Sugarloaf State Park near Godspeed Trail. Therefore, the Basin Plan Amendment before you today includes both a sediment TMDL, which will fulfill federal requirements to address the sediment impairment, and a habitat enhancement plan where we state our support for achievement of all priority restoration measures.

What I'll do in the next few slides is highlight the key components of the TMDL and habitat enhancement plan. We want to achieve a healthy streambed, and the proposed Basin Plan amendment will establish three water quality targets that define the conditions of a healthy streambed, and for Sonoma Creek, these targets are gravel permeability, pool habitat, and fine sediment deposition.

With gravel permeability, which measures how fast water flows through gravels, basically we want conditions where fresh water can easily flow through the spawning gravels. In this picture, we see baby fish in gravels. The eggs and the newly hatched fish need clean gravels so that water can deliver oxygen and carry away their waste. Too much sediment would smother them and decrease their chances of emerging out into the water column.

We also want more pools and deeper pools because they provide good cover, food supply, and favorable temperatures. The third target is the percent of fine sediment in the substrate or the bed, which provides a direct measure of fine sediment deposition.

This TMDL establishes a sediment-loading cap. We set the TMDL equal to an average sediment load of 65,000 tons per year, which is approximately 125 percent of natural background. What we're doing here is recognizing that sediment discharges are -- they're a natural phenomenon and allowing for some human-caused inputs in addition to the natural load. The TMDL of 125 percent of natural background comes from studies done on north coast rivers where sediment loads were at about 125 percent of the natural background and the native fisheries were in good condition.

In order to attain the 125 percent cap, our calculations show that approximately an 80 percent reduction in human-caused sediment inputs is needed. In developing the TMDL, we divvy up the total maximum load of sediment to all the identified source categories. The allowable load of sediment is called the allocation.

In this table, which shows the sediment sources that I described earlier (the only difference being urban stormwater is separated out because they are regulated by NPDES permits), we have natural background sediment load but we don't expect reductions from these natural processes. Most human-caused sources, including human-caused bed and bank erosion, road related erosion, landslides, need to reduce loads by approximately 80 percent to achieve the allocations. We expect that sediment reductions will be achieved by addressing bed and bank erosion from better management and design of roads and farms and improved control of runoff.

Urban stormwater sources do not have a required reduction because the current loads reflect that best management practices are implemented as required by NPDES permits; however, the proposed plan calls for more stringent requirements to control peak flows and durations to prevent changes to creek flows and their resulting impacts. In fact, in the proposed plan, all significant dischargers of sediment will need to control peak flows to prevent erosive forces from causing bed and bank erosion. Everyone will have responsibility to

reduce the sediment loading from bed and bank erosion.

In order to achieve the allocations and to ensure that source categories implement sediment controls, the Basin Plan amendment identifies a number of regulatory mechanisms that will contribute to achieving the TMDL. These include provisions that ensure that all nonpoint sources comply with the state's Nonpoint Source Policy.

In general, these provisions entail regulating grazing lands and vineyards via waste discharge requirements or waivers to those WDRs. Runoff from lands such as large rural parcels and parks that contain potential sediment sources, such as dirt roads and unstable gullies, will also be regulated. Our development of waiver conditions for grazing lands is already underway initiated as part of the Tomales Bay, Napa River, and Sonoma Creek pathogens TMDLs. We're also working on a waiver program for grape growers, which we anticipate will go out for public review in the summer.

Our development of waiver conditions for vineyards and rural lands containing sediment sources will be a new effort. Fortunately, a lot of work has already been done in this area. We look

forward to building upon local programs, such as the county's hillside ordinance, which are aimed at protecting water quality. We also recently wrote a letter of support for a locally based farm water quality control program. The municipal, industrial, and construction stormwater NPDES permits are already in place; however, as described earlier, due to the problems associated with bed and bank erosion, the plan recommends revisions to the municipal and construction permits to more fully address peak flows and prevent hydromodification.

The enhancement plan is included in the Basin Plan amendment to formally state our agency support of achievement of all of the priority restoration measures. This is because, although control of fine sediment delivery is a necessary ingredient to steelhead recovery, it alone is not enough. Other priorities that have been identified include to enhance habitat complexity through stream restoration projects, which would also serve to stabilize and revegetate stream banks. We also recommend measures to restore a fish passage, as well as to protect and enhance summer flows through support of the Sonoma Valley Groundwater Management Plan.

There are already a lot of efforts happening in the watershed to restore habitat for native fish and other aquatic species. The Sonoma Ecology Center, Southern Sonoma Resource Conservation District, the California State Parks have all implemented restoration projects in the watershed. Just a couple of notable projects here: the Sonoma Ecology Center led a steelhead habitat restoration project in the upper watershed, which is pictured here, and it's located between Glen Ellen and Kenwood. The project was to provide large woody debris and structures to encourage rearing and spawning. We can see in the photo that there are large pieces of wood and logs to encourage spawning and rearing.

Just last year, the State Board awarded $900,000 for the community-based Watershed Management Sonoma Creek Project. In addition, State Parks has implemented road rehabilitation projects in Jack London and Annadel State Parks. Also, the Southern Sonoma Resource Conservation District and other watershed partners are working collaboratively on the Sonoma Creek Watershed Enhancement Plan. Currently, they are working collaboratively to define watershed priorities and to develop an

implementation plan, which we feel will plug very nicely into the habitat enhancement plan framework.

We have estimated the cost of sediment reduction implementation actions. In your Board package, you see that we also calculated costs for habitat enhancement plan recommended actions. The costs that are presented here are those that are required by the sediment TMDL for sediment reduction. The total cost for implementation measures for those that are required by the TMDL is between $6 and $12 million. There's a range in the cost estimate because individual landowners will choose those best management practices that are most effective for their conditions. This total cost is distributed over all dischargers in the watershed and is expected to be paid over a period of time of around 20 years.

These measures will have multiple benefits including reducing pathogens, as required by the Sonoma Creek Pathogens TMDL, and in addition, keeping soils on site is good resource management and benefits farms, as well as helping to prevent floods.

We received 13 comment letters on the proposed Basin Plan Amendment during the formal

comment period and we will be responding to all of them in writing, and our responses will be included in your Board package for the adoption hearing. Today, I'd like to give you a brief overview of these comments.

A number of agencies and groups, the EPA, San Francisco Estuary Institute, who are writing on behalf of the Critical Areas -- Critical Coastal Areas Program, and California Department of State Parks expressed support for the goals and breadth of TMDL and noting how the TMDL and habitat enhancement plan helps their agency's missions.

Stakeholders also raised a number of issues and we are in the process of meeting with them to review their concerns, so let me walk you down this list. Some commenters questioned the water quality targets and the fish habitat conditions. Other stakeholders suggested that there should be more incentives, more allowance of self-directed actions, and less required actions. Some members of the agricultural community expressed concern over the cost of implementation, the equity of requirements, and questioned the appropriateness of including a habitat enhancement plan. We also received suggestions on how to better address the problems of

higher peak flows and channel incision.

We all have a deep commitment to the Sonoma Creek watershed and recognize it is a highly valued resource. Actions are needed to address the sediment and related habitat conditions, and our plan requires control of sediment discharges and erosive flows. The actions required by the TMDL are generally good land management practices. Those that already have these practices in place will just need to provide the appropriate documentation.

In the coming weeks, we will continue to engage in constructive dialogue with agencies and stakeholders. Since receiving written comments, we have had productive conversations with UC -- with U.S. EPA, Sonoma Ecology Center, and Southern Sonoma Resource Conservation District. We will continue to meet with these stakeholders to clarify our intent and to build upon common ground to resolve issues. We will then prepare our responses to all the comments we received and revise the Basin Plan Amendment and staff report as needed. We expect to bring the revised documents back to you for consideration in June.

And that concludes my presentation and we're happy to take any questions.

CHAIR MULLER: Thank you for that lengthy and thorough report, really. We have a number of cards, too, so the Board, do you want to hear the cards first, and then we can get into questions. So I don't know the group speaking. Who do you want to go first? Whoever wants to go first, Rebecca, Armand, or John. Whoever wants to speak first, you're welcome, the three of you. That's the only cards I have, and so we'll start with whoever introduces themselves.

MS. LAWTON: I'm Rebecca Lawton with the Sonoma Ecology Center. I'm the Director of Programs there. I'm also a geologist who has worked on many of the projects that Tina described in her presentation. Good morning, Chairman Muller, and Members of the Board, and Water Board staff.

The Sonoma Ecology Center is a nonprofit watershed group. It's community based, and it has programs in research, restoration, and education. We have the following comments on the subject amendment. These comments are in addition to those delivered previously in person in steering committee meetings, by phone, and in writing.

The Sonoma Ecology Center and our technical partners have worked collaboratively with the Board

on the sediment TMDL from before the preparation of the limiting factors analysis. Subsequent to directing studies for the limiting factors analysis, we led the efforts on the sediment source analysis. And we worked with stakeholders for many years in TMDL steering committee meetings, and we accompanied Board staff on many field tours of the watershed.

We respect the work done on behalf of the Sonoma Valley by Board staff and we admire their expertise. Many of the people in this room have been technical advisors on the studies in our watershed. We support the adoption of the sediment TMDL by the Board, but we urge that changes be made to the implementation tables to strengthen their connection to the findings of the studies and to the staff report -- the main body of the staff report.

Stream channel erosion and incision account for 65 percent of human-caused sediment delivery to Sonoma Creek as shown in table two of the amendment. Table three shows waste load allocations distributed among the human actions that contributes sediment to our waterways. Of the 11,600 tons per year allowed human actions, 7800 tons per year are allocated to channel erosion and incision. Peak storm runoff increases stream flows and erosion and raises stream

turbidity and suspended sediment loading. And this has been documented in the sediment source analysis; therefore, the amendment implementation tables with their emphasis on reducing surface erosion should more strongly address the water management issues at the heart of the chief sediment source; channel erosion and incision.

So our comment letter really goes over our recommendations, but in brief we recommend the following actions and changes to the implementation tables. Number one, we ask that all land uses adhere to a no-net-gain rule for runoff and sediment when development occurs. Number two, we ask that the implementation tables be tailored to the results published in the staff report, which is based on the sediment source analysis and limiting factors analysis, and it did an excellent job of summarizing the findings. So we ask that staff work to eliminate any templating from previous TMDLs done and that show up in the implementation tables, and we've talked to staff about that and hope to see that occur. Number three, we ask that funding sources be named that support on-the-ground work for the TMDL. We'd like to help prevent an on-paper-only Basin Amendment by naming funding sources for

prioritizing sediment sources for treatment and to support the required work.

So in closing, I'd like to thank you for your efforts to support water quality improvements in Sonoma Creek and we appreciate your attention to these comments and our valley.

CHAIR MULLER: Thank you.

MS. LAWTON: Any questions?

CHAIR MULLER: Jim?

BOARD MEMBER MCGRATH: It seems to me that incision is the big problem and it's got some causes. Do you have one or two ideas in terms of watershed management techniques that you would tend to favor? I mean I understand your idea of no-net increase, but it seems to me that the status quo is fairly serious. So in terms of your knowledge of the watershed, do you have a specific idea or two?

MS. LAWTON: Well, we think that the stormwater permit gets at this in a very excellent way, but we also think that the stormwater permit isn't able to get at the less than one-acre size parcels that in aggregate contribute quite a bit towards this problem. We also see that there some, for instance, the implementation tables focus very strongly on grazing, vineyards, and work very

strongly to control the surface erosion problem. But with a vineyard going in, it may be required to do some tile drains, or some surface drainage that actually helps worsen the peak flow problem, so that's a concern of ours.

Basically, we have -- we have developments going in in city limits that aren't -- that have been able to increase impermeable surfaces without regard to peak storm runoff, and that has been since we've been working on the sediment TMDL. Really it's a water management issue, our sediment problem.

BOARD MEMBER MCGRATH: Thank you.

CHAIR MULLER: Thank you. Terry?

VICE CHAIR YOUNG: Yeah. I'd also like to pick your brain just for a moment. It seems to me that one of the -- one of the things that I was sort of confused about is the difference between addressing bed and bank erosion that is due to unfortunate water management or lack thereof in the area and then natural bed and bank erosion, which you want as part of the geomorphology of the area. And so I'm a little confused about what the effective ways are to address the incision problem, and your suggestions seem to go mostly to changes in water flows.

MS. LAWTON: Correct, yes.

VICE CHAIR YOUNG: But I'm wondering if you also have some suggestions about ways that the community is going to be restoring the natural geomorphology and restoring riparian areas. I notice that there's a Sonoma Creek Watershed Enhancement Plan, and I'd like to get your feeling for how that will help or hurt or, you know, if it fits in with this program that the Regional Board might adopt.

MS. LAWTON: I think the enhancement plan, the habitat enhancement plan is spot on in terms of its recommendations for increasing channel complexity, for slowing creeks flows not in the channel but advocating for the proper amount of setbacks so that there can be the sponge effect at the side of the creek.

We at the Ecology Center have been working with stewardship groups all along Sonoma Creek and some of the larger tributaries to work on bank erosion prevention installations. And with the community members on board with that and increasingly getting on board, that should help in working with the complexity -- channel complexity that's prescribed. For instance, in the enhancement

plan, we feel that that will help the in-steam problem. So if we can also address the delivery of flows to the creek in accelerated ways, we think those things together will be the ticket.

VICE CHAIR YOUNG: Okay. But I notice that you didn't have any recommendations for making portions of the watershed enhancement plan mandatory or, you know, really listing them inside the TMDL. Am I correct in reading it that way?

MS. LAWTON: That is correct. And in some of earlier comments, we did ask for that. And we spoke to staff about some technical reasons why that perhaps shouldn't be made mandatory, but that it's actually better addressed through the voluntary component, and I think some staff in this room can actually speak better to why that is.

I'm not a geomorphologist, but we have -- we do see the enhancement plan as being actually more important in ways than some of the recommendations in the TMDL itself. And we also didn't want to see our growers burdened with some less necessary implementation recommendations and so that's where we stand on that.

VICE CHAIR YOUNG: Okay. Thank you very much.

MS. LAWTON: Sure.

CHAIR MULLER: Okay. We have other cards, so we can let them respond and make their comments. Go ahead, John.

MR. YENNI: Good morning. My name is Norm Yenni. I am a hay and grain farmer in the far southern reaches of Sonoma Creek down on a property called Tubs Island, which is on Highway 37.

CHAIR MULLER: Sorry, Norm.

MR. YENNI: And I'm a lifelong resident of Sonoma Valley. I've been involved with the Sonoma Creek TMDL process since its introduction to public involvement, which is probably five or six years ago now. And I come here today and I've tried to temper my words here.

And I'm going to go ahead and say what I had originally thought I was going to say. I feel, frankly, betrayed and frustrated in the process. I feel betrayed because the proposed implementation plan does not reflect the things we had talked about at great length, and really it doesn't reflect the process. And I'm frustrated because, if I had a silver bullet, I wouldn't know where to aim it. I don't know how to fix the thing. And I really sympathize with you folks sitting up there that you

got to try and bring everybody together and make all these things work.

I'm involved because I know this thing won't go away. In an ideal world where I'm coming from, I would just say, 'Hey, I'm going to draw a line in the sand,' and make it go away, but that isn't going to happen. I want to deal with reality here, so we need to adopt something. I realize that. At this point, I kind of wonder if my five or six years sitting around and meeting with these people has gone to waste or not. I hope not especially in light of the cooperative attitude I'm seeing here today.

Okay, so first of all, I believe that solutions should be found by working with problems. Studies have shown that 65 percent of the sedimentation in our watershed comes from the channel incision and erosion. That leaves 35 percent for all the other sources, and I think that land erosion was 14 percent in the chart we saw. Is that right, Tina? I think it was.

MS. LOW: Yes.

MR. YENNI: Okay. The erosion from tilled and pastured lands, therefore, is a small percentage of the problem, but it receives a lot of attention

in the document. Measures above and beyond what's commonly accepted, that is the best management practice, are to be required, a lot of documentation and other things. These tilled and untilled lands have permeable surfaces, which relates itself to aquifer recharge and some of them are subject to intermittent flooding, which of course is a buffer to the other problems we have. Most are currently managed with BMPs, and as BMP practices are being more and more accepted, we'll soon be near 100 percent BMP compliant.

So why then are we not focusing our efforts on the paved and roofed areas with 100 percent runoff? That's what really is the source of the problem or a good source of the problem as I see it. Charts in the document just arbitrarily list vineyards and pastures first, but the results of development, depending on what chart you're looking at, it's either incision erosion or sometimes they're all grouped together into one simple word, that being stormwater. And it's kind of, you know, depending on what part of the document you're reading through, you can get different flavors of it.

Secondly, unlike the TMDL you heard

previous to this with the Richardson Bay thing, Sonoma Valley is heavy in agriculture. People are not only living in the watershed but making their land off the land there. We're not just there as nighttime residents. And so the impacts and the requirements of the TMDL here are going to have a lot more impact on people that own 100 acres or 200 acres as opposed to somebody who owns a quarter-acre lot.

We were told years ago that the public involvement would be critical to the success of the process. Now at the most recent public meeting, we had about 25 or 30 people total in attendance, and I counted in ballpark figures now five from the Water Board, about five from the Ecology Center, three from the Resource Conservation District, three such as myself, who have been involved or from farm agencies, and these are people that have been involved with the process all the while along. They've always been savvy to what's going on. Now you throw in a couple of other two or three people that are -- they go to meeting because people just go to meetings. They're the usual crowd you see there all the time. I'm sure you know what I'm talking about. That leaves roughly five people of

the public at large that were really at this meeting, and that would be the target audience I would hope. And I know I've talked with some people about that before. It's a frustrating thing. I don't know how to fix that, but I think that's a key component is getting out and telling the public this is what we're planning and this is what we want to do.

The material presented at the meeting and probably some of this out of necessity was vague and focused more on process than the actual implementation. The document under consideration today is hard for the layman to read and can be interpreted in different ways. I know there was a written comment period, and I guess you had, I think, 13 comments is what I heard, and that's already expired. Even at today's hearing, it isn't being held in the watershed so you're not getting a lot of the actual landowners or the people that will be directly affected by this speaking to you.

Despite jumping through the hoops as required, I don't think we've involved the public, as I was lead to believe we would or as I believe should be done. I also believe that, when the public becomes aware of the $25 to $45 million cost

to agriculture that this implementation will be, I think you'll have, let's say, more feedback.

And lastly, the issue of fish passage barriers I don't feel is addressed adequately. I'm talking specifically about the tidal and inner tidal areas, and I know we've been around and around about this. I realize this involves a different time in the fish lifecycle, and that's why it may or may not be directly related. I also realize this is very difficult to study because you have sediment flowing up from the San Pablo Bay as well as the sediment coming down below. I also realize that, frankly, there aren't -- this land extensive agriculture and there aren't a lot of boats down there. We don't get a lot attention from even our elected officials because we're just low value land and not many people.

I still maintain that, for a watershed as large as Sonoma Creek, a channel with the lower end that's literally 20 feet wide and two feet deep at low tide I believe that constitutes a passage to fish passage -- a barrier to fish passage, and I think it should be studied further or at least addressed fully. I've often said that the reason the fish can't get back up the channel is because

they can't take a bus across the field where the floodway was.

We're asked to assume that sediment of the Creek is directly related to the health of the fisheries. I believe it is definitely related, but I also know there is a long list of things and I'm not convinced that sediment is the only problem here. It will be the only measure of our success, but I don't think it's necessarily the only problem. Once the objectives of the TMDL have been reached, it would stand to reason that we should have a healthy watershed from that perspective, and I think the de-listing should take place at that time if we've reached our goal, but there are no such plans and I don't know why not.

Habitat restoration I understand is an inexact science. In fact, I can show you immediately adjacent to my property a recent project that had unexpected success in areas and other areas where they went to great lengths to do things. It was a dismal failure, and this was only in sediment control, let alone the rest of that habitat stuff.

So I realize the challenges that are out there and I sympathize with it. The same people, and the same techniques, and the same water even and

you get different results. But the thing is I'm saying that I don't see that we should go burdening the public with a whole bunch of things on fuzzy science especially when it's shown that the farmers are not the main contributors to the this problem.

So for all these reasons, I can't support this document as it's written and presented to you today. I ask that it be rewritten and we get some more public involvement.

Now that's what I had prepared. In light of some of the questions that Becca asked -- was asked, I would like to, if you don't mind, I have a couple quick down and dirty farmer solutions I could see to a couple of these problems if you'd be willing to entertain that.

CHAIR MULLER: Just I'll give you the privilege of making it quick. I could give you some solutions, too, so.

MR. YENNI: Okay.

CHAIR MULLER: If I were king for a day, we could fix this, but trust me it's a difficult situation, so go ahead and give us two quick ones and then we will go on to John.

MR. YENNI: Okay, two quick ones; they want to enhance the water retention by woody debris

retention. If people had a quicker permit process with the other agencies, they would probably be willing to do that. In specific, I have never had to do it, but the 1600 permits from the Department of Fish and Game take three years to get and they're go for a year in many instances. If you could retain woody debris at a controllable rate in the stream, I think more people would probably do it.

Number two, pond filling. After 50 years of water running down streams, it permeates the gravel. The gravel is imbedded with clay particles in the ponds and it's not good fish habitat. What I've advocated all the way along is a down and dirty farmer thing. Let's go out there, if we don't have a lot of sediment coming down the creek, let's get an excavator out there, dig them suckers out, take out a couple of hundred yards, put back in some drain rock, and we have an instant habitat there. Now that's probably not politically possible, but that's my way of doing it.

CHAIR MULLER: You're not king for a day. Thank you. John? We appreciate it, Norm. While he's coming up, I can tell you that great, great grandpas would believe that going in a with a dragline and dragging the creeks were a healthy

thing to do, but trust me I don't even think, number one, there's a dragline left in American, and number two, it would be a long permit process.

VICE CHAIR YOUNG: Out in the open ocean, they still use them.

CHAIR MULLER: Yeah, in the Bay they do it. But I swear to God, great, great grandpas will swear that that's an answer to keeping the creeks healthy. But trust me, I try to stay as far away from the creek as I can. Okay. Go ahead, John. I'm sorry.

MR. GUARDINO: Good morning, Chair and Members of the Board. My name is John Guardino. I'm an Agricultural Scientist with the Southern Sonoma County Resource Conservation District. The District has been involved in the development of the TMDL as an active participant co-chairing the steering committee with the Sonoma Ecology Center. And I would also like to thank Rebecca Lawton for making her comments, and we do concur with the comments and opinions expressed today and in their comment letters.

As such, we've been involved in this for a long time and I think I hadn't planned to comment on this originally, but it quickly becomes evident that this is a large and very complex problem. And I

think that, as such, you know it's going to be important that -- Obviously, as a research conservation district, central to our core mission is, and as you may have known, that we've been called at times or at least in the past as soil conservation districts, so obviously we support soil conservation and the reduction of sediment loading into the creek. Therefore, it's going to be -- and restoration of the steelhead population. But we think it's going to be important to support a TMDL, and we will support a TMDL that is scientifically sound and defensible, and also establishes consensus, not only among its stakeholders in the watershed, so it needs to be done on a watershed scale, but also establishes consensus among the researchers and folks that have generated this data and that there's a proper peer review process, which we know is taking place now. We'd like to learn more about that in the future.

What we'll wind up then with, I think, is a TMDL and action plan here that is -- sets goals that are specific, measurable, attainable, realistic, and trackable to best that we can estimate, given that this and watershed planning is by and large an inexact science.

I think that what I'd like to do is it seems as though the comments that preceded me kind of shuffled me around a little bit, but I think I'll start with my take-home message first, given that this is a complex problem with as many layers as it does have, is that we are going to need to work together to solve this problem obviously. And what we'd like to see is seamless integration of the TMDL action plan with the Sonoma Creek Enhancement Plan.

There's a tremendous opportunity right now as we are developing this plan. We've gathered stakeholders -- a large group of stakeholders in the watershed including landowners, agency people from a large number of agencies, parks and recreation, fish and wildlife, fish and game, and many others. And the only way we see being able to solve all these watershed-wide problems is with a holistic, systemic approach that integrates these efforts on a watershed scale and takes advantage right now of the opportunity of synergy and cooperation.

I think what we'll wind up with there then is, in dealing with these problems, is a logical progression of work and allocation resources that make sense and makes the best use of those resources. And we can't hunt and peck here. We

have to work together, like I said, in an integrated fashion.

There's a few issues I'd like to see addressed also in the report, and I'd like to certainly recognize the hard work that staff has put into this. And we greatly appreciate the time that they've taken to meet with us over many years now, and also as our comments have been submitted in November and then in March to meet with us again either by phone or to come up into the watershed, so to speak, in person, and we certainly appreciate their efforts and also the challenges that they face and you all face in solving this problem. So as such, what I'd like to do is talk about a couple things we'd like to see addressed.

One of the issues that we brought up in our comment letter is the issue of agriculture and resource conservation on larger agricultural parcels. Compare that to conserving resources on many smaller parcels after agriculture is driven out of business or becomes economically untenable, and how much more difficult -- expedentially more difficult it is to conserve resources and prevent degradation on multiple lot splits as opposed to larger parcels where you have willing landowners

that are willing to do that.

Now we've been given assurances verbally by staff, and we appreciate that -- that we will -- that this is going to be long process, perhaps 20 years, and that there is going to be a reasonable approach to this tailored to individual needs and resources of the landowners over that timeframe. That's well and good and we'd like to see that in writing within the amendment and/or the staff report because my guess is that many of us in the this room probably won't be here in 20 years while this continues to be implemented perhaps. I'm not really sure how the approaches will change, but we want to make sure the interpretation of how this is going to be implemented stays the same. That's going to be crucial because times change and people come and go. That's just the nature of life and professional life, too.

The other issue we'd like to see addressed is and we certainly would like to be -- continue to input as the waiver program is developed. I think that as that occurs that's going to be important. And we've already seen some cooperation and again greatly appreciate that from staff who have been willing to work with us on developing a ranch

planning program for attaining water quality standards. We have a grant funding application out right now on a federal level and hopefully that will come to pass, and we'll be able to do that good work with your staff involved -- directly involved in developing those types of techniques for attainment of water quality and protecting water quality and reducing fine sediment loading.

The other issue, and again this is a watershed-wide scale issue, is hydromodification. We'd like to see that addressed in more detail in this report. It's referred to as hosing of the creek, which again I was referring to these peak runoff issues. Now that there's been such a dramatic amount of hydromodification, there's by and large most of the tributaries are now connected to the main stem through development over the past 150 years. And how we either reverse that or simulate a natural system, I think, is going to be one of the watershed-wide or watershed scale approaches into solving this problem is dealing with that issue. Obviously, we can't go back in time, but if there are ways to restore floodplain function and natural detention, that's going to go a long way to helping to solve the incision problem that we've heard about

today, and that's seems to be really where this issue of incision is coming from.

Equitability is another issue I want to touch on. With urban populations and rural residential properties and ranchettes of ten acres and under with regards to their potential impact and cumulative impacts on sediment and hydromodification, how are we going to handle that and how do we need to address that or at least call it out in this report? I don't know. I don't have a solution, but I'd like to see it more thoroughly addressed.

And that leads into agricultural buy in. The previous speaker certainly said enough about that and so I won't attempt to go any further. But I think that from a conservation standpoint, it's certainly going to help our district if we work with the -- continue to work with the agricultural landowners and get additional buy in from them and certainly the Farm Bureau, North Bay Ag Alliance, and other organizations, vineyards, and growers organizations. It's going to help us with implementing these strategies.

The other issue that came up in our letter that I would like to also address is the limiting

factors analysis that was performed by -- in response to the listing of the creek by Stillwater Sciences and our colleagues at Sonoma Ecology Center. And we'd like to see that the report and the amendment would subsequently in some way address the findings and the priority rankings for steelhead recovery in the creek. The priority was -- The finding in that limiting factors analysis was summer and winter rearing habitat for juveniles. Sediment was much lower on the list. And I've talked to Mike Napolitano and I appreciate his input on this and he has attempted to explain the approach, but we still are not convinced and would like to continue to work with staff to get some additional explanation for how that kind of works because we see the habitat restoration piece being really front and center as far as recovering the steelhead population.

And the final point I would just like to make is that we also appreciate the U.S. EPA's comments and we concur and strongly support their request for technical clarification in the draft report as it is.

CHAIR MULLER: Thank you. Okay. All right, we'll start down here this time. Go ahead. Yes, sir, Dr. Singh.

BOARD MEMBER SINGH: You know I know that the major problem is stream bank erosion because there is, I think, 65 percent. But the 14 percent of the erosion or sediment is coming from the land area. And when a farmer loses the topsoil to erosion, this is the fertile soil. It's very conditioned soil, and you don't want to lose that soil.

MR. GUARDINO: Right.

BOARD MEMBER SINGH: Do you practice contour plowing in your area, which are connected or close to them? One of the ways we control the erosion from the land and we teach in the classes -- the sediment classes and having some barriers between (inaudible) and also contour plowing. Now do you practice that? I saw on the map that there is no contour plowing. They had a map over there. And then it allows the puddles to be along the hill slope and water runs very fast. It does not give it a chance to infiltrate into the ground and it carries a lot of sediment because it becomes a concentrated flow. It forms a gully. Now do you practice some of these water -- soil conservations? Are we teaching the farmers and help the farmers to practice some of the soil conservation and take some

measures? Now this service is free by the U.S. government.

MR. GUARDINO: The short answer is yes. We've been involved in that for about 50 years now. Some of the pioneering efforts with, you know, including cover cropping in vineyards was developed by Paul Scheffer (phonetic), who was an engineering technician at our resource conservation district.

But there are, you know, a large number of different operations and it's agriculture, so everyone is using techniques within their own systems. But by and large, vineyard operators have done a very good job over the past 25 years of controlling sediment, and the word is in the watershed is some of the cleanest water coming off the land is from the vineyards. Now that's not -- that's not everybody obviously. And getting out there and doing that is something, as a conservation district, obviously is a voluntary method, and we don't go out and solicit these types of things. We're based or we operate on voluntary cooperation. We let people come to us. We act as a non-regulatory liaison. But we have all these techniques and the people who can get out there and help farmers deploy these kinds of techniques in-

house.

So as we move forward with regulatory requirements for sediment discharge, we've been proactive in looking to develop a ranch planning system that will implement and help farmers implement the techniques that you're speaking of to reduce fine sediment input for a number of different types of operations including vineyards, grazing, and dairy within our watershed, which are the three primary types of agricultural that are currently in Sonoma Creek. So we're way out ahead of the ball there in that regard. But again, it's voluntary cooperation and that has worked exceptionally well in the past, but those techniques are in place. And as you can see, the input from sediment is under 15 percent. Now if we take the back -- the natural background, I think, was three to six percent, I don't recall what that number was, it's even lower.

CHAIR MULLER: I'm going to move on to another question quickly here. Terry, please?

VICE CHAIR YOUNG: Yeah. You mentioned that you wanted to see the Sonoma Creek Enhancement Plan and the TMDL be integrated seamlessly, and I assume that you're not just talking procedurally, but that there are some requirements -- specific

requirements in here that you think are not going to be seamless. Can you give one example?

MR. GUARDINO: We're using the EPA watershed plan building system, which requires us to integrate a TMDL whether it's in process or completed into our watershed enhancement plan. And I can't give a single example and I don't think it would be fair, but that it's not seamless. I just think that the opportunity is there now, as we're developing this new plan and the TMDL is coming down the pike, to work together and to develop a set of integrated solutions for integrated planning within the entire watershed.

VICE CHAIR YOUNG: Okay, thank you. Fair enough.

CHAIR MULLER: Shalom?

BOARD MEMBER ELIAHU: Well, I don't have a question to John. I have a question to staff.

CHAIR MULLER: Okay. Jim?

BOARD MEMBER MCGRATH: John, at the beginning, you mentioned the need for credible science, and I guess I've got a very specific question to you. There's an underlying analysis of sources in the staff report. It's on page 39 and it's table of sediment delivery that gives various

estimates and that's where we derive the numbers. Is that a good starting point for you?

MR. GUARDINO: I'm assuming that that table is taken directly from the sediment source analysis. Is that correct? Is that the one? To the extent that this is based on the sediment source analysis, it's a good start --

BOARD MEMBER MCGRATH: Okay.

MR. GUARDINO: -- and we feel that it is. However, again, I think that highlighting this issue of urban water -- urban stormwater runoff, I think what you have to do, though, the trick here is to superimpose the hydromodification issue on this.

BOARD MEMBER MCGRATH: I understand that. I'm just trying to figure out if we're in general agreement about the sources and the amounts of increase in the relative boxes that we put those sources in.

MR. GUARDINO: Yes, I think so.

BOARD MEMBER MCGRATH: Okay. Thank you.

MR. GUARDINO: Limiting factors is another story as I mentioned.

BOARD MEMBER MCGRATH: I understand.

CHAIR MULLER: Okay. Thank you. We'll bring it back to staff then. I think that's all

thequestions we have, John.

MR. GUARDINO: Thank you.

CHAIR MULLER: And we had questions of staff. Shalom?

BOARD MEMBER ELIAHU: Yes. Let's see, the bed and bank erosion, of course, is the main source of that sediment, and this is really a function of the velocity of the flow. Do you intend to reduce that velocity, to modify it?

CHAIR MULLER: Yes, if it doesn't rain, but we need rain. Yeah, we want to hear from you.

MS. LOW: Hello. Again this is Tina Low, Water Resources Control Engineer. And the answer to that question is yes. We have measures that we strongly recommend within our staff report and our Basin Plan amendment to address erosive forces and hydromodification. Two that come to mind are that we are recommending that the stormwater permit that covers Sonoma County—the urban parts of Sonoma County—the Phase II permit be revised so that they have standards that are similar to those that are now being developed for Phase I. So we have determined that -- we make a recommendation that the maximum extent practicable level of hydromodification prevention be applied and expanded

to the Phase II communities which Sonoma Creek is part of.

In addition, the construction stormwater program is also in the process of being revised, and we recommend that more stringent requirements be adopted as part of that process as well.

BOARD MEMBER ELIAHU: So do you set a maximum flow velocity or just give it any?

MS. LOW: No. The requirements will be best management practice based.

CHAIR MULLER: Okay.

MR. WOLFE: And just to tie back to what the what the Phase I programs are looking at, is basically the philosophy of having the flow or the flow pattern be similar after construction of a development as it is before development. And this is where we have worked with the Phase I programs in Santa Clara, Alameda, and such to come up with an approach where on those new developments they can match the hydrograph and it's a challenge.

And that gets to the concern about erosive forces and the change in flow velocity, so it's not specifically a flow velocity, but it's trying to say what can you do between detention basins or other measures such as swales and low impact development

that can moderate that flow pattern.

BOARD MEMBER ELIAHU: But there's existing erosion right now. Some of the creeks are already eroded. There are some slides there coming down. Are those going to be repaired?

MR. WOLFE: Well, and that's where we're looking at what are the opportunities to do projects. One project that was noted was California State Parks doing work on Annadel State Park and Jack London State Park on those rural roads in those parks to try to do measures to both slow any sediment coming off those roads but slow any flow coming off those roads, and so those various sources that we've listed there.

Besides the bed and bank erosion, we expect, as you address erosion from roads, erosion from land use activities, that it's not only the sediment that's coming from those activities but it's the flow coming from those activities that then causes those erosive forces. And so that as you address those, then you address the bed and bank at the same time.

CHAIR MULLER: Okay. Any other questions?

BOARD MEMBER SINGH: I have some questions and some remarks.

CHAIR MULLER: Okay.

BOARD MEMBER SINGH: It seems like two-thirds of the erosion is coming from the natural sources.

CHAIR MULLER: Yeah. Bring the mike out a little closer, Dr. Singh, so they can hear you down here.

BOARD MEMBER SINGH: Now what I see the figure that two-thirds of the erosion is in bank, unstable slopes, and also maybe high velocity due to urbanization in that area. And we calculate that erosion increases proportional to average velocity to the power of four. So first of all, I looked at the way they calculated 52,000 tons per year of sediment lowered, and I think that since there's too many (inaudible) from over there and so many assumptions in some of the figures and data they have used, but probably that's the best technique available. I estimate that to be about 30 to 35-acre feet of sediment. That's a large amount of sediment for a small creek like that. If you can put on 35-acre of land, one foot high of sediment after it has come out, how can it clean that?

But a couple of problems come to my mind. Due to urbanization, maybe the flow has increased.

Just by vegetating the slopes, it is not going to be stable. In some places, you have to cut the slope to the angle of repose and angle of friction and then you have to vegetate the slopes. If it's a natural process, I don't know if we should modify the natural process because the stream has not reached the stage of regime. You know we call it the regime theory. Maybe it is still under changing and developing. Maybe the dominant flow has changed. Maybe we can look at some of these pictures over there.

Another thing comes to my mind that summertime you are saying there is no flow. I don't know if there is no flow during the entire river or only a portion of the river goes dry. Now that will call for building a reservoir up stream and releasing that water slowly in the summertime. There is no other way to do it. You need water to slowly release it. I am outraged there is so much opposition to building dams and reservoirs, you know, so that measure probably you have to find a suitable site. And if this has been the condition all the time in the past, the summertime it goes dry and fish die, and then they revive themselves to some extent in the winter, so look at the historical

data a little bit and see how this stream has been behaving historically, so before you take a measure to supply water artificially in the summertime.

Now riparian restoration wherever damage has occurred, putting some older structures in the channel and creating some riffles and pools, those measures can be (inaudible) cost money, but that can be taken and can be beautified. You could take a structural measure to stabilize the slopes at places or you can take non-structural measures and just vegetating it and putting some plants and vegetation. Developing a plan, which everybody likes, I think it can be stabilized but it takes a plan. But I don't know how we are going to supply water during the summertime and what do your plans call for. I do not understand that. Are you going to build a reservoir?

MR. WOLFE: That's not what we're saying --

CHAIR MULLER: No.

MR. WOLFE: -- in this. I think first we're looking at how do we come up with appropriate controls for the sediment and then look at the habitat enhancement. What are the opportunities? As you say, you recognize the benefits of doing the in-stream restorations and there's a number of

those, as we've showed slides, that are ongoing.

And I think what this comes down to, many of the things you suggested and noted, are things that are part of the adaptive management of this, that we're trying to look for where are, what we're starting to call the no-regrets actions. What can be done now both cheaply but also things that will say in ten years from now we're glad we did rather than things we say ten years from now why did we do that.

So how can we do some of those measures now and, as you noted in the comments, you heard how can we help identify funding for some of those measures and that's a challenge because a lot of what we're calling for in the enhancement plan, as you say, it's going to cost money. So you can't do something you don't have money to do and so that's part of the challenge, working with the stakeholders as to what can be done, what can we afford, and how does it work on a watershed basis. So I think all of this fits together and it's trying to come up with something here that drives us to move forward. Even though we may not have all the answers today, how can we do things now and then adaptively manage and come back and monitor and see how we're doing.

CHAIR MULLER: Let me summarize if I may there a little bit also. First one is we talked about outreach and getting people involved and engaged. I mean if we could come up with that answer, most of us wouldn't be going to a meeting tonight, too, you know. So we don't have the answer to that.

When we're talking parcels in watersheds with state parks and other government entities, they're having a heck of time with even keeping them open anymore let alone doing proper management. And I mean this is a serious part that we have to consider out there because I know in San Mateo County they're closing watershed parks that are very, very vital to our watershed and who is going to maintain them and who is going to manage them.

And then in the funding part, as I just said, we're going to be hurting on the funding for all of these projects. It states in here that our purpose of the plan is to recognize there are a lot of uncertainties and to provide the flexibility for the landowners on how we can meet these objectives. And I think this is very important for us to remember there.

And sometimes I'm kind of the simple guy,

but we've got to really keep it practical and simple to make these work, because if we get too technical in our TMDLs, then none of us are going to be able to reach that level that we all want to do it. We want to do the right things but it takes time, it takes resources, and it takes the technical advise from agencies and they're not out there anymore. The technical advice is getting tougher and tougher. And what was my last one here? And so the timing, the funding, and what we're talking about here is to recognize that we need the flexibility I think is very, very important. And Jim, I'll let you wrap it up.

BOARD MEMBER MCGRATH: I'm assuming we have no more testimony.

CHAIR MULLER: Right.

BOARD MEMBER MCGRATH: And we're giving staff direction at this time. I'd like to see -- First of all, I'd like to see some clarification in table five. As I read it and look at it, I'm not sure that the lower part of it is the totals or the increases according to the anthropogenic effects. Specifically, I'm chewing over the question of surface erosion and I see 6,000 at the top and 9,000 at the bottom. And if it's a 50 percent increase,

that's one thing. If it's a 150 percent increase, according to development, that's another thing, so I'm just not clear on that.

The second thing, given that people seem to be comfortable with the number that says hydromodification to the stream is a problem, I'd like to see some underlying hydrology for what you think is the source problem and what's going on.

And some thought about tools. I mean as has been said up here, it's fast water that's the problem, so what are your tools to do that? Well, you can retain flows. You can straighten -- flatten the stream gradients. Probably they've been unflattened and channelized in the first place, but it may not be possible to go back there. And you can increase roughness. But it sort of doesn't end there. Retaining flows, if it's a dam, can be a fish passage barrier and counterproductive. If it's a big pool, that only slows water by the size of the pool, it can be part of a hydrologic solution that also provides rearing habitat.

It's kind of looking at the stream like that that would convince me one way or the other. Frankly, I don't really care about the increases in stream velocity from a one-acre urban development on

an already modified mechanism. It may not matter at all if you've got big problems from hooking up unhooked-up sections of the hydrology, so I want to see a bigger hydrologic picture.

And I'll be even a little more specific. If the flow pattern of wash load of fine grain sediment is pretty much down to the Bay and it's not going to lodge in a pool that is going to affect rearing habitat or spawning habitat, it doesn't matter that much. And so I'm not going to ask for controls of every site if it doesn't matter much downstream. If it's upstream of a really valuable pool or riffle, it matters a huge amount. And so the hydrology picture and the restoration effort, I think, is important to create consensus to create that credibility.

I mean there are funds. There are habitat restoration programs that go through the state bond process and I think they have to represent a consensus. But more than that, I think they have to really work, and so I want to see a picture of the stream in terms of slowing the water down but not causing flood control problems and doing it with mechanisms that add debris to the stream. I mean those are all good ideas.

The underlying staff report technically I was very impressed with. It's just how do you then fashion that into picture of the hydromodifications that we would like to see that we can all get excited about and help support.

CHAIR MULLER: Good. Thank you.

VICE CHAIR YOUNG: I have --

CHAIR MULLER: Terry? Sure.

VICE CHAIR YOUNG: -- a couple of comments that I'd like to offer. First of all, I also did appreciate the staff report and the discussion of the fact that we are trying to protect native fisheries and several other beneficial uses in addition to steelhead. You know steelhead always comes out and grabs our hearts, but there's more than steelhead out there and we have to keep that in mind as we fashion this program.

With that said, I thought it was really nice that we did the limiting factors analysis and that you have had a history of working with the technical experts and the scientists in the local area. That has to, in the long run, make the whole package stronger.

But in terms of then, you know, what are we going to do. Well, clearly the problems with in-

stream incision are problems that we don't have a really attractive solution for yet. The hydromodification programs that are now in this draft deal with improvements to new things that are going to be built, but they don't deal with the problems that we're having already. And I don't -- I didn't see a solution to the problem jumping out at us today, so we all have to kind of think about that a little bit more I think.

One of the other solutions to the problem is to look at increasing habitat complexity and doing in-stream and riparian area restoration, which the watershed enhancement plan is supposed to do. But again, I don't see a tie-in between what we're doing here and the watershed enhancement plan other than a lot of good intentions. Maybe that's the way to go, but I don't know whether we could be a little bit more specific about creating incentives to get the watershed enhancement plan done in our TMDL, so I throw that out for some staff consideration and brainstorming.

Moving on to the mechanisms for compliance, right now the way this is written for vineyards and for ranchers, the compliance is really via a BMP-type program and that's fine. But it would be nice

also if we could create a mechanism where an alternative compliance path could be simply to demonstrate that that particular landowner isn't making the problem worse. There really isn't an erosion problem or a sedimentation problem coming off that piece of property and here's why. That might save a particular landowner from having to do a lot of activities that just don't make sense on his piece of ground, so I'd ask you to consider that.

With that said, I really applaud piggybacking that you have foreseen on the third party programs. The list of the potential third party programs, I think, is a lot longer than is in the draft. That was pointed out by a couple of commenters and I noticed a couple of holes, too. The workbook for the sustainable wine grape growing is an obvious example of something that is out there that we could piggyback on.

And when I talk about piggybacking, I'm thinking that if a landowner has already qualified for an existing program and we have decided that that program is good enough, that level of certification is good enough, then that landowner is done. That landowner has waivered out and we make

it as easy as possible for that to happen. We always have to at the Board obviously maintain the ability to spot check what's going on for enforcement purposes, but if we can allow landowners to not do anything -- Let me restate that. If the landowners are already really doing everything we want them to do and they have proved it to somebody else already, then I'd like them to be done.

That brings me to final thought, which is I was struck with Ned Hill's letter and his jumble of paperwork, because when I read through this, I sort of had the same reaction. It seemed to me like we were setting up this third party program but we were still going to require everybody to do a lot of paperwork, and I think we can avoid that. And I think that would go a long way towards making the community feel more supportive of our program. So if, again, if a landowner has already done everything we want him or her to do, it's already been certified through a third party program, then I don't think we need a separate reporting document specific to the Regional Board. We should be able to use hopefully the reporting that they have already done. It would be great if they could check a postcard and say, 'Oh, yeah. Put my waiver under

this guy's program.' They sign the page and they send a postcard back, and that would be, you know, that would be a dream come true.

But to -- I guess I'll just summarize and say that it's not clear in this draft that we are going to try to really streamline the reporting process for those people who have qualified under a third party program, and I would like to see that a little bit more explicit. Thank you.

CHAIR MULLER: Well said. Any further comments? If not, staff, you're hearing what we have to say up here. And we appreciate the commenters also. I think they had good input, and Terry said it -- tells it well.

MR. WOLFE: Yeah. I think the points are definitely well taken. The whole idea of having the testimony hearing is both to get those comments, and as you note, Terry, there are other existing certification programs out there we should recognize, and it's partially getting some of this written down that it becomes obvious, oh, we didn't get it all and so -- or as much as we could, so this is an opportunity to look further at that.

Again, we always recognize that to a certain degree our work begins once we get the

comments and the testimony because it helps us focus on the issues both towards what we bring back to you for ultimate consideration but really what are the actions on the ground that can be done.

And you may recall that when we had the Napa River sediment TMDL, we had some of the stakeholders say that, you know, this is going to be a challenge for us but we recognize we need to do it, but we also want you to continue to have staff involved as we implement this and we pledged to do that. That is certainly a challenge because to a certain degree we don't get many resources for the actual implementation of TMDLs. But when we're marrying those two habitat enhancement plans and other watershed benefits, we really want to be part of that and move that along.

So we definitely want to continue working with the stakeholders both in developing this to bring back for your consideration but even after that because there are so many opportunities when we have watersheds such Sonoma and Napa where we have active stakeholder groups that have done many things over the past and are going to continue to do things and we want to build on that.

CHAIR MULLER: Good. Thank you.

MR. WOLFE: So I think the message is well taken.

CHAIR MULLER: All right. That concludes this item.

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