Appendix E

June 16, 2004
Hearing Transcript

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California Regional Water Quality Control Board

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June 16, 2004

Item 8

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Item 8.

Introductory Discussion

Chair Waldeck - We are here for our Mercury TMDL and I have been on the Board now for five years and I still remember the first introduction meeting I had, I said, "What is a TMDL?" And with TMDL's, it is like the more you learn about it, the more questions you have, so we hope to shine some light on our Mercury TMDL and want to hear what everybody here has to say so our entire Bay can be illuminated together. So I will pass it over to our Executive Officer.

Mr. Wolfe - Right. This Item 8 is the first hearing of the Mercury TMDL Basin Plan Amendment and, as you say, this is something for learning because today we are taking only comments. There is no action necessary today. This has been a long process. This is the most significant TMDL action that is coming before you. There is certainly going to be a long list of these, but you can tell by the interest in the community that is here today, that both this specific TMDL is of significant interest, but the whole TMDL process is of interest, and so many of the comments are going to be speaking both to the process and to the content. We had public noticed the Basin Plan Amendment and the support material that is included in your packet, and that has

Introductory Discussion (continued)

been out for a 45-day public notice period, which closed on Monday. We have gotten over 30 parties commenting to date. You will get a flavor of that today, but we have gotten quite extensive written comments. The public notice also notices a September consideration of the amendment at the September board meeting. That at this point is what we have put in the public notice, but we are committed to continuing the work with the community and the stakeholders on this action to respond to the comments that are received and to continue to work informally to make sure there is full understanding of where we are going with this, but also to make sure that we have something that by and large would get support and agreement on the next steps. And so, while at this point we have noticed September and we think we can meet that, it is conceivable that we may need to adjust that. Nonetheless, this is today the opening of the public hearing and I will most likely, at the end, recommend that we close the public hearing. But we can see, based on the comments received at that point, where we are at the end of this and any recommendations and considerations you have and next steps. So, with that, I would like to ask Tom Mumley as head of the Planning and TMDL Division to make a few opening comments before

Introductory Discussion (continued)

Bill Johnson and Richard Looker make the staff presentation.

Chair Waldeck - Before Mr. Mumley starts, I just want to commend you on what you wrote in the Estuary Institute, the publication that came out I think in the last couple –

Mr. Wolfe - The Pulse of the Estuary put out by the Estuary Institute associated with the regional monitoring program annual report. Thank you.

Chair Waldeck - Thank you.

Presentation

Mr. Mumley - For the record, I am Tom Mumley. I am the Planning and TMDL's Division Chief here at the Board, and I would like to open our staff presentation with some reflection on where we are at before we turn it over to staff for details. And I do not think I need to tell you this, but I want to tell you this, we have indeed reached a monumental milestone in our efforts and your efforts to protect and restore San Francisco Bay. Maybe you should call it a high watershed mark. It is way up there.

You are about to do something that has never been done before in this region, and that solved one of the most difficult water quality problems that we have been faced with for years. So this is the first TMDL you will be considering, and it is also the first

Presentation (continued)

comprehensive basin plan amendment you will be considering in some time.

It was ten years ago when we did a major revision to the Basin Plan that affected multiple parties. We have had other basin plan considerations in the mean time, but not this extensive. So, again, we are about to do something that is huge. And I need – it has been a long arduous path to get here, a lot of effort, and a number of staff need recognition.

So, in addition to Bill Johnson and Richard Looker and Diane White, who are the key players at this point in time, I want to recall the efforts of Khalil Abu-Saba who made major strides here, and Lila Tang was a key player at that time, as well. And prior to that, there was Kim Taylor and Toby Tyler who worked extensively on a report that we released in 1998. That means all these focused efforts started in about 1996, so it has indeed been quite an effort.

So just to take a step back, we are trying to solve a major water quality problem, impairment of San Francisco Bay by Mercury, but we are not doing it just because it is the right thing to do, but that is a good reason why we are here, but there are legal reasons. The state has responsibility to establish TMDL's for pollutants that are known to be causing water quality

Presentation (continued)

impairment, so we have a legal requirement to do what we are doing here. And a TMDL comes with some legal elements that must be considered, and the main ones that I like to focus attention on because you will hear them mentioned in our presentation, as well as possibly commentors, are the numeric targets, as we have to put a numeric endpoint to solving the problem so it is not ambiguous.

We have to consider the capacity of the system to accept the pollutant and obtain the standards, and that is the so-called TMDL. And then we have to allocate that capacity to the various dischargers. So the numeric target and the allocation are kind of the dials that we have to turn to try to solve the problem, but the most important element are the implementation actions. So that is where the rubber really hits the road, so it is the targets, the allocations, and actions that we really should be thinking about.

The rest of the pieces are all about tying everything together. And by design, especially in a complex estuary like San Francisco Bay, TMDL's are inherently complex technically, but they are also complex procedurally and legally, and particularly because something like a TMDL for San Francisco Bay affects multiple dischargers. In fact, all discharges

Presentation (continued)

to the Bay and beyond, you cannot solve the problem by a series of separate permit actions, it has to be a single action via a Basin Plan Amendment, and that such it complicates the process because you cannot just consider comments affecting one party without considering the consequence of resolving those comments that have an effect on somebody else.

So it is an elaborate balancing process, and I think that is basically what we are facing here is an elaborate balancing exercise, balancing the desire to solve the problem with numerous constraints, technically and economic, balancing scientific complexity and certainty with the desire for action, and ultimately the balancing of actions amongst various players. So that is what we are about to present to you.

We have built into our process this concept of Adaptive Implementation, which was the theme of the paper I wrote, which means that we are trying to write as much certainty as we can, but at the same time, flexibility to respond to consequences. So we want to focus on real desired consequences and avoid perceived and unattended consequences, or otherwise have mechanisms to easily resolve those and not stand in the way of solving this challenging problem.

Presentation (continued)

With that introduction, I would like to call Bill Johnson and Richard Looker for our presentation.

Chair Waldeck - Thank you, Dr. Mumley.

Mr. Johnson - Good morning, Chairman Waldeck and Board members. My name is Bill Johnson. I am an environmental scientist with the Planning and TMDL Division, and I am happy and, in fact, proud to be here this morning because, as you know, we have been working on this TMDL for a very long time. We completed a number of project reports over the years and we have handed those reports out to the stakeholders, gotten feedback on those reports, revised them again. We have met with stakeholders in a number of ways, we have met with them through the Mercury Watershed Council Forum, and also through individual one on one meetings with specific stakeholder groups, and eventually we were able to draft a Basin Plan Amendment and supporting staff report which we gave to three independent scientists and asked for their feedback on the scientific merits of what we had put together. And the scientists gave us responses, we revised the package one more time, and then we distributed it to the public for a formal 45-day public comment period. Now, when that comment period ended on Monday, we had received almost 30 letters containing over 250 pages worth of comments, and

Presentation (continued)

obviously we have not had a chance to write down our responses to those comments for you yet, but we will be doing that in the next couple of months. So the purpose of today's hearing is simply to introduce you to the draft Basin Plan Amendment and to allow the public an opportunity to share their thoughts and concerns about the proposal with you and, of course, to allow staff a chance to get some feedback and direction from you as we move into this final phase in this project.

Before we get too far along, let us just make sure we all start on this in the same place. This is San Francisco Bay. And the Mercury TMDL covers all segments of San Francisco Bay, in fact, we defined the term "San Francisco Bay" to include all the various segments of the Bay regardless of what names they might have individually. And San Francisco Bay contains Mercury. Mercury is a toxic metal that persists in the environment and accumulates within the food web. Most of the Mercury coming to San Francisco Bay is somehow associated with historic activities that took place in the coastal range, as well as the Sierra Nevada. And the Mercury coming to San Francisco Bay, most of it, binds to sediment, and that sediment moves around into the Bay until a portion of that Mercury ends up in

Presentation (continued)

locations that are prone to Mercury Methylation. When I talk about Methylation, I am talking about the process of converting inorganic mercury into its organic form, which we call Methylmercury, and unfortunately it is this organic Methylmercury that is the toxic form of Mercury that small organisms at the bottom of the food web take up. These small organisms pass the Methylmercury up to higher organisms in the food web, and the concentration of Mercury builds up at higher and higher concentrations until it reaches the point where humans and wildlife who consume San Francisco Bay fish or other aquatic organisms experience risks. And because of the build-up of Mercury in the food web in San Francisco Bay, San Francisco Bay does not meet the Basin Plan's narrative water quality objective for bioaccumulation. It also does not fully support its beneficial uses. The California Office of Environmental Health Hazard Assessment has issued a fish consumption advisory warning people to limit their consumption of Bay fish. At the same time, scientists have measured Mercury concentrations in the eggs of shorebirds high enough to account for hatch failures. Obviously, this is not a good thing for wildlife habitat, and it is especially not a good thing for rare and endangered species, including the California Lease Tern. Now, as

Presentation (continued)

Tom said, one of the exercises we undertake when we complete a TMDL is to develop numeric targets, which are essentially a quantitative way of expressing what we think the ideal condition is. They are a way of defining what success is for implementing the TMDL and we use the targets to track our progress as we implement the TMDL. So we have proposed three numeric targets. We have a human health target of 0.2 parts per million (ppm) Mercury in fish tissue, and to meet that target will require a roughly 40 percent reduction from existing fish tissue Mercury concentrations. We also have a wildlife target of some concentration less than 0.5 ppm Mercury in bird eggs, and that target is also intended to protect rare and endangered species. Now, eventually we are going to need some additional information to better refine that target, but what we know right now is that getting there will require at least a 25 percent reduction from existing bird egg Mercury concentrations. Our third target is derived from the other two, and it is a sediment target. It is 0.2 ppm Mercury in suspended sediment. And reaching that target will require a roughly 50 percent reduction from existing suspended sediment Mercury concentrations. The idea is, if we meet the 50 percent reduction for the sediment target, we should also meet the other targets

Presentation (continued)

as well. You will find, as I will discuss in a moment, that the sediment target is also very useful in coming up with an allocation scheme. So let's take a quick look at what we have to work with here. This table lists all the sources we identified in the TMDL as sources of mercury to San Francisco Bay and list our estimates of their existing loads and our proposed allocation for each source. We estimate that the largest source of mercury is bed erosion where high mercury containing sediment was buried below the bottom of the Bay long ago and it is now coming to the surface through erosion. The Central Valley Watershed is also a significant source of mercury coming to the Bay which is not surprising because the Central Valley Watershed drains roughly 40 percent of the state of California and is also home to a number of historic mercury mines, as well as gold mines where mercury was used in the refining process. Our own local urban run-off is a source of mercury to the Bay, as is the Guadalupe River Watershed. The Guadalupe River Watershed is home to the historic New Almaden Mercury Mine. Atmospheric Deposition, Rural Run-off and Wastewater are all relatively small sources of mercury compared to the total and together make up only about five percent of the total. The process of Sediment Dredging and

Presentation (continued)

Disposal is a net loss because not all the material that is dredged from the Bay is returned to the Bay in the process.

So the total amount of mercury currently coming into San Francisco Bay exceeds 1,200 kg per year, and we need to reduce this load if we are going to meet our targets, and the way we have proposed to do that is through our proposed allocations. For Bed Erosion, our allocation is based on the load one would expect if the current rate of erosion were to continue indefinitely, and the layer of high mercury sediment were to erode away. For the Central Valley Watershed, our load is based on the sediment target. If sediment coming from the Central Valley Watershed met the sediment target, we would experience a roughly 24 percent reduction in its load. Similarly, if urban runoff sediment were to meet the sediment target, we would see a 48 percent reduction in urban runoff load. Finally, the Guadalupe River Watershed, which contains sediment that is very high in mercury, would experience a reduction of 98 percent if only it met our sediment target. So that is how we come up with the allocations for those sources. For atmospheric deposition, rural runoff and wastewater, because they are relatively small sources in the first

Presentation (continued)

place, our strategy is simply to not let them increase any more than where they are right now and just hold the line on them. So essentially the TMDL is about 700 kg per year. Now, reaching these allocations is not going to be a simple thing. It will not be easy because some of those allocations are fairly substantial and it will not happen overnight, so we are proposing to phase in these allocations over roughly a 20 year period. And, again, they will still pose some challenges and that is why Richard Looker is here to tell us about the implementation plan.

Mr. Looker - Thank you, Bill. Good morning, Chairman Waldeck and other members of the Regional Board. My name is Richard Looker and it is a pleasure to be back in front of you after a long absence. I cannot even remember when the last time was. My role in developing the TMDL has been mainly on the implementation side of the project. And the implementation plan has one over-arching purpose, and that is to obtain water quality standards, but it aims to do this by focusing on four primary things. At least in the short term, we are going to focus primarily on addressing controlling and reducing loads of total mercury to the system, but as time goes on, we need to place more and more emphasis on the control of

Presentation (continued)

methylmercury because that is the form that actually gets into birds and fish and eventually humans. But first we also have to have a monitoring program to assess how we are making progress towards our goals, we have to conduct special studies to refine our understanding of how the understanding of the system works, and also to the extent that we can, we want to encourage actions that have a benefit not only for mercury, but that will help out in other areas as well. Some examples of this just for thinking about it might be trying to encourage water re-use, erosion control, or clean-up the sites that are contaminated with mercury and also other contaminants. In general, we are going to be using existing regulatory programs in order to accomplish these goals. Of course, there are going to be necessary modifications for the NPDS permits and waste discharge requirements in order to implement the TMDL.

In the time that we have available today, it is going to be impossible to tell you every aspect and every detail of the implementation plan. If we had to boil our strategy for the various source categories down into a slogan that you might put on a bumper sticker on a car, here is what those bumper stickers would look

Presentation (continued)

like: For Bed Erosion, this is a natural process, and at this point we are not sure that we can do anything about it, but, as you saw from Bill's slide, it is a very large source, it has a large impact on the recovery trajectory of the Bay, how long it will take to solve the problem, so we do need to seek solutions for this. For the Central Valley Watershed loads, our colleagues in Region 5 are in the best position to address these loads and they have already gotten started dealing with the mining legacy in that watershed. And, incidentally, the State Board and also United States EPA has approval authority over both the TMDL's from our region and from Region 5 to ensure consistency between the two approaches. For the Urban Runoff arena, we see a lot to do in terms of identifying the sources in Urban Runoff conveyances, and implementing the best practices for managing those sources. An example of this would be erosion control for new and redevelopment. That is something that is going to be happening anyway, and the mercury TMDL provides even more motivation for those and other efforts. For the Guadalupe River Watershed, this is a TMDL that we are working on in our region and you are going to be hearing more about that one in the coming months, and there is already some terrific, terrific technical work being conducted there to deal

Presentation (continued)

with the mining legacy on that watershed, and we want to give a special hats off to the Santa Clara Valley Watershed for supporting many of those early efforts. For Atmospheric Deposition, we need to find out if there is a substantial local contribution to this source and if there is any feasible way to control it. For rural runoff, we are in the happy situation that the sediments leaving rural areas are already quite a bit below the sediment target, so there is really nothing to do for these areas. Our message to the wastewater community is keep up the good work, keep loads basically the way they are, and just confirm that the discharges are not causing a problem right in the vicinity of the discharge. For Dredging and Disposal, when our dredgers take sediment out of the Bay and they look at what the concentrations of the contaminants are, especially for mercury, if they find that they have hit kind of a hot spot and there are concentrations that are quite a bit above ambient, try to find ways not to put it back in the Bay, explore either upland disposal or open ocean disposal to the extent that they can.

You know, sometimes we wish that we could work on water quality problems that were straightforward and had obvious solutions that everybody could agree to, and would cost absolutely nothing to implement. But after

Presentation (continued)

thinking about it, that would get boring after a while. The reality is that there are no water quality problems like that anymore, and especially in San Francisco Bay, and mercury is non exception. And so in a few months, we are going to be coming to you to ask you to take the first few steps, the first steps really towards solving a very serious water quality problem, and it is not going to be easy, it is going to take some courage. As Tom said, Staff have been working very hard for about eight years on this problem to learn as much as we could about this system and how mercury worked, to be as fair as we could, to design the best strategy that we can to start solving the problem. But, of course, there are issues and concerns that still remain. And part of the reason is that this is the first TMDL that we have done and, you know, there are going to be changes that are going to happen and that is scary for everybody. So we have to bear with that. We have heard about these concerns through comments that have been submitted either formally or informally over the years, and we have considered these comments to the best of our ability as we drafted the staff report and the proposed Basin Plan Amendment. Even so, you are assured to hear about some of these comments today from the speakers. So I have listed some of the issues here that probably

Presentation (continued)

will be some of the themes that you will hear about today. One of them is recovery time. It is going to take a long time to solve this problem and even if we could do the impossible and stop every last bit of mercury from getting into the system, it is still going to take a long time, and the reason is there is a lot of mercury already there from past activities. In the mean time, we are going to do the best that we can working with other agencies to minimize the risk to people who take fish out of the Bay. You are going to hear a lot about how mercury is very complex and there is still a lot that we need to understand. There are people who are concerned about the feasibility of reaching the load allocations. These things still exist. But what we have done in view of these concerns is that we have tried to build in flexibility in terms of options for showing compliance with the various requirements that are going to come out of the TMDL. We have tried to allow ample time to reach the load allocations where there are substantial reductions that are required, and we have a plan to aggressively pursue solutions for the uncertainties that still remain. There are those who are concerned about costs and I am not going to lie to you, there are going to be costs associated with solving this problem. It is not going to be free. But we are

Presentation (continued)

sensitive to cost and we will continue to be and we have a commitment to work with our discharges to try to find solutions to reducing loads of mercury and trying to control methylation of mercury that are not going to break the bank. And toward that end, we will be actively seeking sources of funding to try to share the burden and we have already done that. We have already secured more than $2.5 million of State Proposition 13 funds to work on projects that are directly related to implementing this and other TMDL's, and those projects relate directly to dealing with the uncertainties and feasibility issues that people are concerned about. This waste water community is particularly concerned about being able to maintain their load allocations even if there is population growth in the Bay Area, and we have looked into this concern, and especially for the short term, we do not find that there is reason for immediate worry about this. And even if we are wrong, we think that there is going to be ample time to re-visit the TMDL approach before this ever becomes a serious threat. There are some people who think we are being unfair because you saw from Bill's slide that there are different reductions required for the different source categories, and the reason for this is that we based our load allocations on achieving the TMDL targets, and so

Presentation (continued)

we applied this approach consistently to the different source categories where it made sense. The reason that some sources have more of a reduction to do than others is because the sediments coming out of the source areas was further away from the sediment target. It is that simple. There are a variety of legal issues that you are going to hear about today and we are going to work hard with our legal staff to address and resolve all of them over the coming months. Finally, there are concerns about whether we can even solve the problem at all because of the large reductions that are required, and because of the technical complexities. And the short answer to this that Tom eluded to is that we are mandated to develop this TMDL by the Federal Clean Water Act, and we are authorized under California Water Law to implement it. The people of California and especially the Bay Area have entrusted us with the responsibility of protecting water quality and we have to take the first steps now towards solving the serious water quality problem. It is certainly not going to be easy, but we have enough information right now to support our current plan and, by getting started now, implementing a sensible implementation scheme and we will not only get a head start on trying to solve the problem, but we are going to learn valuable information. It is only

Presentation (continued)

possible to obtain by actually trying to implement, and with this gained knowledge we will be able to in the future take more refined and more effective implementation actions in the future. This concept is called Adaptive Implementation. And you read Tom's Post article and that it still may be a new concept or somewhat unfamiliar to you, so I want to say a few words quickly about what it means to us in the context of this TMDL. Essentially, here are the basics. The first step is that you need to be very clear about acknowledging where there are information needs and outstanding technical issues, and we have done that to the best of our ability in the staff report in the implementation section. You have to have a monitoring program to assess the progress towards reaching the goals based on the information and needs that you have identified, you have to conduct studies to address those issues. And finally, and probably most importantly, we have to commit to a plan and a time schedule to re-visit the approach that we have taken for our TMDL and incorporate any new information that we gather and make necessary adjustments to the plan. And these efforts are already underway. You know, with a complex problem like mercury, this is really the only way you can proceed. You have to begin a sensible course of action based upon

Presentation (continued)

the best available information and you have to make a commitment to refine as more information becomes available, and this is what we intend to do.

So finally to wrap up, here is the plan. From here on out, we will consider every comment that we received either in writing or in person today and we will respond to those comments. Based upon these comments and any feedback we might receive from you, we will make appropriate revisions. We are going to come back to you hopefully in September to ask you to adopt the Basin Plan Amendment for the first TMDL our region has ever produced for a very important water quality problem. If you do adopt the TMDL, it goes on to the State Board, if adopted there on to the Office of Administrative Law, and finally on to the United States Environmental Protective Agency for final approval. After their final approval is when it could become incorporated into our Basin Plan. So that was quite a bit of information packed into a short presentation. I know that you probably had a chance to look at the TMDL Staff Report and Basin Plan Amendment, and we would be happy to answer any questions that you might have at this time. Thank you.

Chairman Waldeck - I am going to have some Board questions here. Our main thrust of this meeting here is to get the public to come in and speak and chime in, but I first want to have Board questions. Mr. Schumacher.

Board Discussion

Commissioner Schumacher - I wanted to ask in this Implementation Plan, you want to reduce the production of methylmercury. Who produces methylmercury? And how do you propose to reduce the production of it?

Mr. Looker - Yeah, nobody produces methylmercury like in a factory or something like that. It is – bacteria produce methylmercury, I guess, is sort of the short answer. Methylmercury production is a naturally occurring process that happens in particular locations. In the Bay, we think some likely areas would be wetland areas around the fringe of the Bay, but you have to have special sort of chemical conditions that are right for making the transformation.

Mr. Schumacher - Well, how do you reduce it then?

Mr. Looker - Yeah, there is actually a lot of work going – you have probably heard about a lot of the wetland restoration efforts that are going on in the Bay, and so there is a lot of activity going on to look

Board Discussion (continued)

at how you might design a wetland or manage a wetland, and to try to intervene in this process. So I mentioned the Proposition 13 projects that we have secured funding for. There is a lot of work going on in this area.

Mr. Schumacher - Well, I mean, how – do you have any thought? How do you reduce it?

Mr. Looker - I guess the – since there are specific chemical biological conditions that have to be present for mercury methylation to happen, the key is to try to intervene and modify some of those key conditions to try to make the conditions not favorable. So some of the things we pointed out – I am getting to your question – some of the things we pointed out in the staff report could be things like adjusting the water level in a wetland. They could be trying to change the chemical features to take mercury away from the form that would get into bacteria. There could be some control of salinity. So there are certain physical and chemical dials that you have to turn to try to intervene in this process.

Mr. Schumacher - It is a little nebulous, a little vague.

Mr. Looker - Yeah.

Mr. Schumacher - Okay.

Chairman Waldeck - Thank you, Bill. Shalom?

Board Discussion (continued)

Mr. Eliahu - Yes. There is about 50 percent of the reduction coming from bed load or bed erosion. Is there any practical way to control that? This is a huge quantity to support that. This is the storm water.

Mr. Looker - Yes. I do not know at this time – I cannot say certainly that there are practical ways to control this. The problem is that the mercury in the Bay that is subject to this bed erosion is not just in one location that would be amenable to going and digging it up. It is sort of spread far and wide. With that being said, it is not spread completely evenly throughout the Bay, so while it looks quite challenging to think of an area like San Pablo Bay having these elevated mercury concentrations, some think that perhaps there could be areas in San Pablo Bay that you could do something about and the connection would be that we need to think about where we are going to get sources of sediment for things like creation of wetlands, so we need to try to explore solutions to see if there is a connection between dealing with this bed erosion problem and solving other problems.

Mr. Eliahu - So you really do not have any method and you do not have – I do not know how you can control it.

Mr. Looker - At this time –

Board Discussion (continued)

Mr. Eliahu - You do not have any method. It is just a number right now, just a number.

Mr. Looker - Oh, sure, sure.

Mr. Eliahu - The same thing goes for the watersheds, Central Valley. That is also huge quantities of water probably coming in. How do you control it.

Mr. Looker - I should – I need to point out something about bed erosion. The control that I thought you were talking about is trying to do something about it in the short term. The load allocation for bed erosion does not assume that we can do anything about it. That is the default assumption is that it will be a naturally occurring process until such time as basically – the layer of mercury that is buried that is fueling this bed erosion is finite. It is about a meter deep. And so with the current rates of bed erosion that have been calculated by the United States Geological Survey, the time required to chew down through that contaminated layer is on the order of about 100 years, and when that time has passed and that layer is gone, bed erosion will cease to be a source in the way it is today. So the load allocation does not assume that we are going to do anything about it. What I am saying is that I think we need to explore solutions for trying to do something

Board Discussion (continued)

about it to try to accelerate the process. So I just wanted to make that clear. We are not assuming that we can control it currently.

Mr. Eliahu - So you are saying the source of that mercury only existed in the Bay –

Mr. Looker - yes.

Mr. Eliahu - In river beds.

Mr. Looker - In the Bay.

Mr. Eliahu - One more question in this. How does evaporation reduce mercury? You have one table here on page 20. Evaporation reduces mercury?

Mr. Looker - Is the question why is evaporation a net loss?

Mr. Eliahu - Yeah.

Mr. Looker - It is actually – there are two things that are going on at the same time. There is mercury that is actually being deposited on the Bay, that is one process, but there is actually elemental mercury right here in the Bay and part of that actually leaves the surface of the water and enters the atmosphere, and it turns out that if you take those two processes together, more is actually apparently leaving the Bay than is actually going into the Bay.

Mr. Eliahu - Does mercury evaporate with the water?

Board Discussion (continued)

Mr. Looker - It does.

Mr. Eliahu - You already – you have the water evaporate. Actually, the concentration of mercury, any other chemical, it is more concentrated. Mercury does not evaporate, does it?

Mr. Looker - Mercury is a volatile metal.

Mr. Kolb - Elemental mercury certainly will evaporate, that is why studies of laboratory workers, most analytical labs have got mercury in the floor boards just if anybody ever broke a thermometer 50 years ago, that stuff is slowly evaporating. It really will. And if you measure the mercury in a person who spent their career working in a laboratory, they will typically have higher mercury in their tissues than other people. So, yes, even though it sounds improbable, mercury will evaporate both from the land and from water.

Mr. Schumacher - What about the dentists. In London, didn't they go after the dentists and didn't they also go after cremations for having mercury get into the air? You know, that people with amalgam in their teeth would get into the air when they get cremated, and I do not know whether – the mortician is supposed to yank the teeth? I do not know.

Board Discussion (continued)

Mr. Mumley - I think that is a good point and we sort of touched a little bit about that in the staff report. The dental mercury has an interesting life cycle, part of it remains in the person's mouth, part of that mercury may be removed when they change the filling, and so becomes something that happens in the dental office and turns into wastewater and then it is wastewater issue. But, in fact, there is a component of the amalgam that is in people's mouths that part of that is released through human waste, and part of it is actually, again, when a person dies and if they are cremated, then there are not controls on cremation facilities that control that, so that is an atmospheric source of mercury. It is possible to remove fillings, it is just not something that there is a lot of – this is a sensitive issue because you are dealing with people's loved ones. So it is possible that the Bay Area Air Quality Management District could help us out here and control that source, but in order to do that, we would have to generate the kind of supporting information and support to get their agency to adopt those kinds of regulations just the same way we have to compile a lot of information for us to take an action here for water quality. So that is something we could investigate, to control atmospheric deposition.

Board Discussion (continued)

Chairman Waldeck - Mrs. DeLuca.

Commissioner DeLuca - Yes, I do have a question. I think we are all involved with the same kind of schematic questioning that we are doing. I am looking at the atmospheric deposition and the ways that you are proposing to control atmospheric deposition. Now, that has been an important consideration on this Board for some years, especially with reference to the Dioxin depositions in the Bay. And I recently spoke to someone who is very familiar with the problems in the Central Valley, one of them being the prevalence of serious asthma among children, and in attempting to control the effluent from mechanized equipment in the Central Valley, they are finding that no matter what restrictions they impose, it is not really helping that much in terms of how this proliferation of asthma is continuing. And now they are talking about scientists. They are talking about the air currents that are coming from countries in the Far East where there are no limitations and no restrictions on pollution. So my question goes to whether, first of all, I have had a lot of concern about whether we really have a close enough working relationship with the Air Resources Board because, in my very basic understanding of chemistry, we all know that basically what goes up will come down, and

Board Discussion (continued)

so I am wondering if we are just doing half of a job here without full cooperation and implementation programs that do very strongly associate us with the methodologies, perhaps, and the studies that are being brought to the Air Resources Board. I cannot see us solving this problem by ourselves and I am just wondering if, you know, there are any specific plans afoot. I can remember five and six years ago meeting with the Air Resources people and, of course, there is a lot of agreement, but I do not see that we are proceeding aggressively on that path and I am wondering what your thinking is and what you know that you can tell me that would make me feel a little better.

Mr. Looker - Well, I think it is unfortunately even more complicated than that because we did consider the source and we looked at available information that we had to try to determine what the local contribution to atmospheric deposition would be. It is important to remember something that you pointed out, that California is down wind of an industrializing Asia, in a sense, and the mercury - there is a lot of mercury that is released to the atmosphere through combustion of coal, and so while there is still some debate, it does look very much like the possibility that the majority of the mercury

Board Discussion (continued)

that is in our atmosphere over the Bay Area and subject to deposition is not from local contributions. So while I agree with you that we have a responsibility to follow-up on this issue and look at the local contribution, and we are going to have to work with our local air agencies for that, it is actually a broader problem that if we want to do something about this source, I think we are going to have to be relying on participation and cooperation with our federal agencies because they are the ones who sort of have the opportunity to work, you know, globally. But I agree with you. We are going to have to work with the local agencies to take advantage of their expertise to look at the local contributions.

Chairman Waldeck - Mr. Muller.

Commissioner Muller - A question maybe for Dr. Mumley first and then comment. The first part would be, with our recent reminder of our fragile levee systems in the Bay Area and our 40 percent of our drain here, if tragically we lose more levees, which could happen, would that have an impact on our whole TMDL process of our mercury study here, going off first as a question; and then, as a comment on the second part, it is real easy, again, as Mrs. DeLuca said, it is hard to see where things are coming from, but it is real easy, I

Board Discussion (continued)

think, for us to sit here and kind of look at our permit holders because they are an easy target. We can kind of feel them and see them and known them. And it is easy to look at the allocations to go after them. But it looks like the biggest parts of these loads are coming from non-permit holders, something out there in land that we do not know about. But, anyway, that is my comment and I know we have to respond to that. I am just looking forward to hearing comments from the permit holders, but I am also interested about the process of TMDL's if we should lose more of our levee systems in the Bay Area.

Dr. Mumley - There is no simple answer to the question about the effect of the levees breaking down on us. I can tell you, it would have a much more profound effect on the Delta and the Central Valley Board's challenge of dealing with mercury in their system because it presumably would result in more waters being available for methylation vs. how the levees operate now, more about moving water, and as long as more water is moving the less apt it is to become methylated. Mercuries have to get methylated. So I would guess the effect on us would be significant. In fact, it could end up being more water getting through the system

Board Discussion (continued)

because of how this would affect this very complex management of water in the Delta. Certainly, it is going to have an effect on the Delta itself. And there is a lot of energy and study going into that question, in general, about where is methylation happening in the Delta associated with higher levels of mercury in fish throughout the Delta and the Sacramento River, and other tributaries. So no easy answer. I think it would be safe to say there is no immediate threat certainly in this adopted implementation scheme. Knowledge will come to the table within the ten year time frame that you have to consider.

Chairman Waldeck - We have quite a few cards here.

Commissioner Reininga - I have a question. I am trying to get my arms around the cost of the program here. The goals and the targets are admirable, but, as I am trying to think about what it is going to cost to people in the Bay Area, in fact, we were able to achieve our goals, and I look at the charts that you have with the existing load and the allocations and so on, so it would be helpful to me if you could add a third or maybe even a fourth column on this chart that would include the cost of the implementation. And as you go down the list, bed erosion, of course, there is no cost to us.

Board Discussion (continued)

That is something that is occurring in nature. The Central Valley Watershed runoff is something that is, again, not our responsibility, so there would not be any cost associated with that insofar as the people of the Bay Area are concerned. But then we get to urban runoff and in the package we have here, you have given some cost estimates, but they are done on a very large range and it is in a per unit rather than a total amount. So it is hard for me to figure out what is it costing us to have a reduction of urban runoff on 160 kg per year to 82? What does it cost for the Guadalupe River Watershed to drop from 92 kg per year to 2? Does that cost – is that a charge to the Bay Area or to the Santa Clara Valley Watershed District? Or is it being paid for by the owners of the mine? Do you see where I am getting at? So at the end we can see what the true cost is to our citizens. Just to go back, if you could expand on this chart and add cost columns, what it is costing now maybe in one column, what you expect it to cost in the future, and another, that would be helpful.

Dr. Mumley - So that is a direction, not a question, I am presuming?

Commissioner Reininga - Yes.

Dr. Mumley - And we have done economic analysis and I know we are getting significant comment on the

Board Discussion (continued)

cost which we will have to deal with these cost questions, but I think a logical outcome, particularly from your direction, is to package them in a straightforward fashion so you know what you are considering. So I appreciate your direction.

Commissioner Reininga - Thank you.

Mr. Looker - I do want to add one thing to that to sort of set the context for how the discussion of cost is likely to go, though, is that, as I said, one of the goals of the Implementation Plan is to encourage actions that are not only going to have a benefit for mercury, but have a benefit for other situations, as well. And, conversely, we really want to encourage, at least in the near term, for programs that have the reduction required, to look at what they are already doing for another purpose and sort of examining what the benefit would be for mercury. So, in that way, you know, you need to understand that the cost is not directly related for dealing with the mercury problem. These are costs that are going to be spread over necessities to deal with a range of social and environmental issues. And so you should not think of the costs as pertaining only to the control of mercury. We know that we cannot require something like that. We definitely need to take advantage of situations where

Board Discussion (continued)

you get more bang for your buck.

Commissioner Reininga - Yeah, I understand your point, but if there was a Delta column that shows the additional cost to put this plan into effect, that is what I would be looking at.

Dr. Mumley - I think we can resolve both that cost to put into current context what they already have been, or the multiple benefits associated with those costs.

Chairman Waldeck - I would like to get to the people's cards now and I just have two quick comments to make. This looks – I mean, I know there is a lot of municipalities and agencies here, and this looks a lot like, as people go through the project crunch that even though like the City of San Francisco has a $5 Billion budget, only a $1.4 Billion is actually discretionary, and it seems like with a better erosion in the Central Valley Watershed, and those two things, those are like part of the budget you cannot touch, so you actually have to get your savings from the municipalities in terms of urban runoff, pray that the Guadalupe Watershed can get from 92 down to 2, because I think it is important to recognize that if we could – I do not mean to get Jules Vernon on you here, but if you can make a machine that has a mercury metal detector that would go

Board Discussion (continued)

just above the bottom of the Bay, and go all around, and suck up all the bed erosion there, that you could actually achieve a lot of your mercury clean-up by doing that there. So there has been great work put into this and, again, I know we have to get the numbers down because that is what science and law dictates, and I just think somebody can invent the machine to take care of the bed erosion. Without any other comments and me not going way off too much, I would like to invite our first three speakers to speak. First is Lisa Killow, the Director of Parks and Recs for Santa Clara County, followed by Dave Chesterman, the Deputy Operating Officer of the Santa Clara Valley Water District, followed by Jim Kelly of the Central Contra Costa Sanitary District. And please try to keep your comments to three minutes and, if you agree with the speaker behind you or in front of you, just say that too. BRuce – I do not know if this is for Bruce or for the attorney – if somebody has something they want to read into the record, how do they – is that –

Mr. Wolfe - Well, as I noted that our public comment period closed Monday, but I think especially since we are planning to come back in December, you are not taking action today and I think it is reasonable that if somebody has something written, we could accept

Board Discussion (continued)

that as part of the comment period if they give it today because I think we would all agree that, rather than having somebody read some pages, we would much rather have them paraphrase and give us the written material to comment on.

Chairman Waldeck - Thank you.

Public Comment A-1

Ms. Killough - Thank you, Mr. Chair, members of the Board. I appreciate the opportunity to come forward and speak on this very important issue. I am Lisa Killough and I am the Director of the Santa Clara County Parks and Recreation Department. Our Department oversees the management of 28 Regional Parks in Santa Clara County, and that includes Almaden Quicksilver County Park which is in the Guadalupe Watershed. We are in the business of doing what I would call the right thing, and that is to protect properties of outstanding natural beauty and habitat value, and over the years we have preserved over 45,000 acres of parkland, so we take our job very seriously. We have read the staff report which I have come to speak to you about, and we do have some concerns about some of the elements that are being proposed in this report. But before I get into those concerns, I do want to acknowledge and congratulate staff on the work they have done with this report. It certainly is a large undertaking and not an easy one.

Public Comment A-1 (continued)

And I also want to assure you that, in general, we support the intent of this TMDL, which is to reduce mercury in the food chain.

That being said, we also want to ensure that the work that we are going to try and accomplish will indeed reach the goal of reducing source loading of methylmercury. We are very concerned that the primary mechanism for remediation that has been proposed may not work when all is said and done. And while we understand that the general idea is to get rid of the bad mercury, or the methylmercury, and that is the mercury that can be taken up into the food chain organically, this TMDL proposes to make reductions in total mercury in the sediment. That is the mechanism chosen to accomplish the angle of removing bad mercury.

Now, from the scientific data that is available and the information that we have gleaned through, and this is contained in a written report that we have submitted, there is no correlation between getting rid of the total mercury and removing methylmercury from the scientific data that is available right now. So we can do all of this proposed work to remove the mercury and sediment and perhaps still not achieve the end goal of reducing methylmercury.

Public Comment A-2

Now, one could argue that because we are under the gun to comply with these mandates, and I understand these are very serious mandates, that, well, maybe we ought to see if this proposed theory can work. And perhaps if this were an exercise, a research project, that would be a fair assumption. But we are talking about a very large undertaking here to remove sediment, particularly in the Guadalupe Watershed where you have a 98 percent source load reduction that has been proposed.

And while that target is, I think, very well meaning, it may be virtually impossible to attain. In this day and age of fiscal constraints, we believe that it is pretty important to be relatively certain on the method of remediation before embarking on a 20 year work plan. And right now, I am not sure that there is certainty with the central premise of this report, and we believe that that is a critical problem.

Public Comment A-3

And, by the way, I want to also mention, in looking at the staff report, that we did take issue with another assumption that is being made which is, because the Guadalupe Watershed has a high level of mercury loading, that it should have a higher target, whereas, with bed erosion which is your highest source load according to

Public Comment A-3 (continued)

the data that has been collected, that is considered to be less of a target because the mercury is more naturally occurring. Well, I have to tell you, the Guadalupe Watershed has a lot of naturally occurring mercury, and that is one of the reasons why it was mined, it has a very high load of mercury.

Public Comment A-4

Now, beyond our issues with the central premise, even if we were to agree that there is a correlation between removal of total mercury and the reduction of methylmercury, we have a lot of concerns with the scientific data contained in the report. For example, we have looked at the model that has been used to evaluate the Bay, and that model basically uses what is called a Whole Bay Approach, looking at the whole Bay in the analysis. And what we understand in terms of the way the Bay works, I mean, you look at the Bay and you think, "Yeah, that makes sense, it is a whole body," but it actually operates in different systems. And the South Bay is a very different system from the North Bay.

Commissioner Warren - I think your time is up.

Ms. Killough - Oh, I am sorry.

Chairman Waldeck - Please, if you can wrap it up some? Thank you.

Public Comment A-5

Ms. Killough - Alright, well, the major – we have some issues with the scientific data, there are issues with the data that has been used to support these assumptions. I think it is important that the record show that the county has spent over $6 million in remediation in the park already, a million dollars will be spent in the short term. That work is not even taking into consideration in your data collection – the data collection was done prior to the work that is being done, that has been done in the 90's, that is not included. And just getting back to our central issue which is are we using the right assumptions in moving forward with this project? We have serious concerns about that. I appreciate your time.

Chairman Waldeck - Thank you.

Commissioner DeLuca - So may I just ask, will it be possible to include – I am sure you will be gathering all of this information and all this data?

Mr. Wolfe - Right, including the County has submitted written comments, so we will be addressing those.

Public Comment B-1

Mr. Chesterman - Good morning, Mr. Chair, members of the Board. I am Dave Chesterman, the Guadalupe Watershed Manager and the Deputy Operating Officer for the Water District. I think some of the key

Public Comment B-1 (continued)

things that you are going to hear today are three-fold. First of all, that this TMDL, I think, is a work in progress, and you are going to hear a lot of comments about that today, and I think there are still some important outstanding issues to resolve, and it is important to take the time to do that because of the amount of resources involved in responding to this issue, which leads to my next point, which is the second key theme. I think it is just the amount of resources and questions have come up about that, the potential resources that could be applied to this problem to try to really meet the standard would be sizeable, I mean, beyond I think the means of any of the agencies here today. So I think it is important that we apply those resources to the most cost effective measures. And I think that is still yet to be decided based on further study of the problem.

The third key theme, I think, is the implementation of this program is really the key. We can set a goal and we can try to achieve it, but it is going to come down to how we implement, and I appreciate Tom Mumley's comment today, this morning where he said he is focusing on adaptive implementation, and I think that kind of borrows from the idea of adaptive management. The adaptive management approach has worked very well in

Public Comment B-1 (continued)

terms of achieving our measurable objectives for the Guadalupe River Flood Protection Project, for example.

I know the Regional Board has recently heard about that project and granted us a permit, and I think that program of adaptive management has really been successful. And I think it is kind of a humble approach to take to a problem like this where you do not have all the answers and we recognize that. We are all going to work together to try to devise solutions that are most cost effective, and then we will implement those, but I think the key is that we take the time to really figure out what those are.

I did appreciate a meeting recently with Bruce Wolfe and Tom and Richard Looker, and I was assured that the intent certainly of the staff on the implementation of this is to focus the resources on the most cost-effective measures and that the implementation of this is intended to be based on a watershed strategy, and that strategy is now being developed through various means, but one important means is through the development of the Guadalupe Watershed TMDL. We think that the district has made a large investment in that process and we think that it is really going to pay off large dividends in terms of focusing the resources on

Public Comment B-1 (continued)

the right problems.

The third thing that I took from that meeting is a real willingness to work with us and the other community members on this problem to improve, I think, the TMDL, probably to recognize some of the comments that you will hear today.

Public Comment B-2

More specifically, I think the emphasis of the goal of mercury and sediment is probably an over-emphasis, and we feel that there is probably more benefit to be obtained by focusing more on the methylmercury. And, in fact, we are looking at a study in one of our reservoirs, or one or two of our reservoirs, to look at aeration as a way of possibly reducing the formation of methylmercury.

I think that it is important as we look at the draft TMDL over the next few months to incorporate some incentives for those types of activities for pilot studies because, I mean, really the Basin Plan Amendment, as I look at it, is a way to incentivize the public and the stakeholders to do the right thing. And I think right now the right thing is to do more studies that show and can demonstrate really the most cost-effective measures.

Public Comment B-2 (continued)

And I am going to wrap up. I want to focus on our partnership with the Regional Board. I think it has been good, and I want to continue that effort in terms of the watershed approach. In conclusion, I think I would really like to see that the watershed TMDL and the Guadalupe Watershed TMDL be used as a basis for the implementation of this TMDL that is before you today so that we focus our resources on the best and most cost effective control measures. Thanks very much.

Chairman Waldeck - Thank you for your comments. Next speaker is Jim Kelly followed by Carl Mosher, Ellen Johnck, and Josh Berger.

Public Comment C-1

Mr. Kelly - Mr. Chairman, Members of the Board, thank you for this opportunity to speak. I am Jim Kelly and I am the Director of Operations for Central Contra Costa Sanitary District. I am representing SAN today. Michele Pla, our new Executive Director, will be representing BACWA's comments.

I want to compliment the board on some excellent questions on the issues revolving around the mercury TMDL. These are questions that we are asking ourselves today and I think you were very insightful in your questions. I want to also acknowledge the staff did a very good job on a thankless task. This TMDL has many proponents and many opponents because it affects and

Public Comment C-1 (continued)

touches many of us.

Central SAN is an agency that collects and treats wastewater from about 450,000 people. We have a waste facility and source control program that is nationally recognized. Our core values are environmental protection, customer service, and meeting our permit. It has been seven years since I have had an effluent violation from my NPDS permit and that violation was for mercury. So I take mercury pretty seriously. We have some general concerns that Michele will address and I want to get to some of my specific concerns.

Chairman Waldeck - And I will let Michelle go right after you.

Mr. Kelly - Thank you. Our specific concerns are getting credit for the household hazardous waste program and other source reduction programs. For example, we currently trade thermometers, so that may sound like a de minimus thing, but I think Dr. Kolb brought up the issue of how mercury can impregnate wood and become a long term source. It is the second largest source other than people of what we get into our sewer system.

First is our dentist. We are beginning a voluntary dental permitting program this year. The thing that really removes a lot of mercury is our household

Public Comment C-1 (continued)

hazardous waste facility. Two years ago, we removed 42 kg of elemental mercury. People came in and gave it to us. Last year, we got 280 kg. We collected in some places around 5,000 fluorescent bulbs and a variety of other mercury contained devices. That is $1.5 Million a year, we pay for that, we also collect legacy pesticides and picric acid, which is a precursor for dynamite, so we do a lot of good things with that, and this is voluntary. We would like to get credit for it.

We would like to see the TMDL reward actions you want. We do not want to be punished for our good actions in the past; in other words, "Oh, you were already removing it, we assume you would go ahead. It was not required with the permit. So just keep doing that." So, in sum, we want to get credits and would like you to encourage us to do that. We will be working with the Regional Board to try to flesh out these compliments and we want to compliment the Board for their willingness to work with all stakeholders to address these concerns. Thank you very much.

Chairman Waldeck - Thank you for your comments, Mr. Kelly. Ms. Michele Pla.

Public Comment D-1

Ms. Pla - Thank you, Chairman and Board members, and I appreciate being able to speak now before

Public Comment D-1 (continued)

you. My name is Michelle Pla. I am going to be the Executive Director of BACWA starting July 1st, so this is my first official action. BACWA, the Bay Area Clean Water Agencies, is an association of the Bay Area Wastewater Management Agencies. This group of people are dedicated practicing environmentalists. They dedicate their talent and their expertise every day to protecting the San Francisco Bay Watershed. And they consider themselves stewards of that watershed. And not only are they stewards, but we also consider them to be partners with you here at the Regional Board.

The BACWA Association entered into a partnership with the Regional Board called the Clean Estuary Partnership, and we are very proud and committed to that partnership and working with you not only on this TMDL, but on future TMDL's. We really appreciate Dr. Mumley's remarks about the adaptive management approach, and I have some specific comments that we would like to make about the April 30th issue. First off, I think we need to be mindful of the fact that you have received 30 comment letters with more than 200 pages of comments, so we are recommending today to you that you plan to hold another public hearing so that you can have the Board, the Board staff in an open forum respond to the comments

Public Comment D-1 (continued)

and the issues that are going to be raised today, and the issues that you yourself have raised, and so we would appreciate if that could occur.

Public Comment D-2

The other changes we are interested in discussing over these next couple of months through the CEP process are, 1) the pooled allocation for the POTW's has been reduced from 18 percent which is from 17 kg per year, to 14 kg per year. We are very concerned about this because we think it effectively eliminates any allowances for growth in flows or loads from these POTW's over the next 20 years. We are recommending that you go back to the pre-April 30th 17 kg per year for that pooled allocation.

Public Comment D-3

The second comment we have is that the averaging period for compliance with the pooled POTW allocation has been reduced from five years to one year. Again, we request that that go back to a five year pooled allocation compliance as was considered in the pre-April 30th report.

Public Comment D-4

The individual facilities allocations have been significantly modified in a way that will penalize the

Public Comment D-4 (continued)

communities with the top performing treatment plants. Now, this was eluded to by Mr. Kelly just a few minutes ago and we certainly know that that is not your intention to penalize really good facilities. And so we recommend that the unnecessary and problematic individual mass allocations be eliminated from your final TMDL.

Public Comment D-5

We know that this is only the first of the TMDL's that you will see, and in the partnership that we are working with you, we are looking very seriously at all of these legacy pollutants and other issues, and we are hoping that we are going to be taking actions through this TMDL that are consistent with the scientific information that has been developed over time, and that our policy issues decisions that are going to be consistent with the vibrancy that we live with here in the San Francisco Bay Area, and consistent with that, we would like you to make sure that the staff consider technical reports that were prepared by the CEP, including the mercury source assessment report developed by Applied Marine Sciences in 2003, the Wastewater Implementation Report developed by Larry Walker Associates in 2003, and the Inactive Mines

Public Comment D-5 (continued)

Implementation Report. And lastly, I would like to close with saying that we should not fool ourselves to think that the implementation of this or any of these TMDL's that are coming forward will not require societal changes, we know that. But we are in a partnership and we are committed to the water quality and the vibrancy of the quality of life here in the San Francisco Bay, so we will continue to work with you in an adaptive manner. We look forward to working with the Regional Board staff on these and other issues that you will hear about. Thank you.

Chairman Waldeck - Thank you for your comments and welcome to our process here, and may things go very well with BACWA.

Ms. Pla - Thank you very much.

Mr. Wolfe - I should remind you that our Deputy Attorney General is here for our 11:30 closed session. So we should take just a couple more comments and then go to closed session, and then return to take in the comments after the closed session.

Chairman Waldeck - So how long of a closed session?

Mr. Wolfe - It will probably take approximately 45 minutes, which would coincide for a lunch break.

Chairman Waldeck - And we cannot have our

Deputy Attorney General – okay.

Commissioner Muller - Chair, I would recommend we hear Mr. Mosher and then adjourn to closed session.

Chairman Waldeck - Is that in agreement of the Board and come back at 12:30, then? Okay, I would like to stop after the three people that I have called up already and then we will stop, and then we will break for 45 minutes because I have already called those three people up. Thank you.

Public Comment E-1

Mr. Mosher - Good morning. Thank you, I am Carl Mosher, the Director of Environmental Services for the City of San Jose. I am speaking on behalf of the San Jose/Santa Clara Water Pollution Control Plant and also on San Jose's Urban Runoff Program. The City of San Jose acknowledges that mercury is an important priority in the watershed and supports a reasonable approach to protecting our beneficial uses. We are pleased today by the testimony of the staff related to information that we heard today, which apparently is different than we were aware of 24 hours ago. So we are guardedly optimistic related to the next steps. And so, let me say this, I will begin with the treatment plant issues.

I sat here about a year ago to request that the

Public Comment E-1 (continued)

Water Board staff re-visit the way mercury was being regulated in our draft permit for our Water Pollution Control Plant. At that time, the Board stated that we did not want to penalize good performers or cause compliance issues for our treatment plants because the plants contributed a minimal amount of mercury to the Bay. The mercury issue was then addressed in our permit using an interim mass in concentration limit.

Now, the plan is successful in reducing mercury and volunteered to conduct a special study that would support the Bay-wide mercury TMDL as an effort of part of our South Bay stakeholder process, and we have actively participated and supported the CEP financially and through in-kind services. So we were surprised by the direction that was taken in the final report and surprised by the numbers that were presented today. There are dramatic changes in the allocation to plants, in general, and to our plant, in particular.

And by this slide, you can see that what the allocation is to treatment plants, in general, and the allocation as the gentleman described earlier in their presentation from the Board. The far right hand side of the slide shows what the contribution to the Bay is from treatment plants, which is the second from the right, and from the San Jose Santa Clara Water Pollution

Public Comment E-1 (continued)

Control Plant, which is the far one on the right, which cannot be identified on the graph. These are the same numbers that were presented in the number slide that was presented by Board staff, but this is a visual representation of that, which is why we are concerned about what the allocations are to treatment plants because we feel it is minimal related to the Bay. The final allocation scheme used by the Board staff is based on our past performance, and we are very concerned about how this past performance will relate to future performance. Such allocation schemes provide a disincentive for any other plants who may be proactive and implement programs because their future waste load allocations could be affected.

In addition, this next slide shows how the economic development has affected flow at our plant and how it has affected mercury levels at our plant. Based upon the allocations that we were aware of just a few days ago, the red line represents where we were – or what the allocation is and where we were, and the blue line represents what our plant has been contributing to the Bay as far as mercury is concerned. You go back as far as the year 2000, and we would be higher than that allocation. And that is because flow to through our

Public Comment E-1 (continued)

plant in the year 2000 was higher than it is today, and is mostly as a result of the increase or decrease in population. And so we are very concerned about how allocation will relate to economic development. Now, we are encouraged by the process that will occur over the next several months so that we can be able to resolve that situation. Let me speak to the urban runoff issues just for a moment. My comments are contained in a letter to the Board, and so I am going to be brief related to the next two items, and that is related to urban runoff.

Public Comment E-2

First, our basic assumption here is that – the basic assumption is that there is no linear relationship between a reduction in total mercury and sediment and methyl mercury in the fish tissue. Second, load allocations proposed and reductions in the urban runoff program are based upon sediment loads and mercury concentrations imbedded in the sediment that may overestimate the urban runoff contribution. And, finally, San Jose has significant concerns related to the feasibility and the costs associated with this and has already been discussed and presented by other presenters.

Public Comment E-3

In conclusion, it is imperative that we establish an action to reach agreement on this and upcoming TMDL's and that the allocations for legacy pollutants, many of which will require decades before any improvements can be seen be allocated properly.

Public Comment E-4

Therefore, we request that the Water Board allow more time to finalize the mercury TMDL in the Basin Amendment using a collaborative approach. San Jose has already voluntarily funded the successful stakeholder approach related to copper and nickel in the South Bay. The level of funding that the San Jose Santa Clara Water Pollution Control Plant contributed to that effort is no longer possible, but we are willing to contribute an equitable share related to a regional solution for Bay-wide contamination issues. We advocate the formation of a legacy pollution collaborative, a stakeholder process supported by partnerships to reduce the technical uncertainties and develop the implementation strategies needed to move forward with this TMDL and other TMDL's in the Bay. We champion a TMDL that protects the environment and our citizens and our economy.

We look forward to continued collaboration with the Board, staff, and the other partners related to this

Public Comment E-4 (continued)

TMDL. Thank you for this opportunity to make comments this morning.

Chairman Waldeck - Thank you, Mr. Mosher.

Commissioner Muller - Mr. Chair, after comments are made, I would like to have a response from staff regarding the discrepancy in numbers or communications with Mr. Mosher's Department. They could briefly respond after comments.

Chairman Waldeck - Okay. Ellen. Ellen Johnck and then Josh Berger.

Public Comment F-1

Ms. Johnck - Good morning, Board members. I am Ellen Johnck, Executive Director of the San Francisco Bay Planning Coalition. As you know, the Coalition is a non-profit organization representing a broad consortium of public and private entities around the Bay. What I am doing today is representing that portion of our membership that is identified in the TMDL as the dredgers and the sources of mercury loading from dredge material.

I wanted to clarify one thing just before I hit a couple highlights in our letter. I have written a letter which I have copies of here. I missed the deadline on Monday and I would request that you grant the extension of the public comment period at least to accept the letter. I understood that was what you were

Public Comment F-1 (continued)

going to be doing, so I will not be reading my letter, but here are copies of it here.

Chairman Waldeck - Thank you.

Ms. Johnck - Thank you. I wanted to highlight just a couple of things in my letter related to dredge material and, also, at the same time, I want to thank staff for their excellent work and efforts on this entire process. It is very complex both from a scientific and policy-making view, and you are doing a terrific job and, as others have said, this is a work in progress. You have heard some criticism so far. I have basically full support.

You saw that one of the things we are really pleased about is the acknowledgment and the understanding by staff in looking over the long term management strategy that the Maritime industry has worked on and other organizations and agencies in the Bay over the last 12 years where we have committed to a disposal strategy for dredge sediment that relies on what we call the 40/40/20 plan, with the idea we are reducing over the next ten years now down to one million cubic yards of sediment being disposed in the Bay, in favor of maximizing our disposal out of Bay and also for beneficial re-use in the form of wetland restoration.

So, basically, what you end up with is that, for

Public Comment F-1 (continued)

dredging, we are indeed a net zero loading and appreciate and are thankful that the staff has understood this and has incorporated this into the TMDL process.

Public Comment F-2

Now, when we get to the allocation, I think – I do want to say one thing that we want to continue to work with staff on, and that is the proposal that the allocation for in-Bay, where there is still a need for in-Bay disposal and where we can meet the suitability determinations by the agencies through the dredge material management office, we should have clearance to do that, as long as we are implementing the balance of the LTMS strategy.

So in the cases for in-Bay now, the staff is saying the allocations should be concentration based and is not to exceed the Bay-wide ambient median suspended sediment mercury concentration from all regional monitoring program Bay monitoring stations. Now, we are concerned about how the Water Board is defining ambient conditions. We think this is a subject, the definition of "ambient" is subject to some serious statistical problems in implementation. We think that, as applied to dredge material decision-making, it needs to reflect the variable and dynamic conditions of the Bay, as well

Public Comment F-2 (continued)

as be integrated with the decision making and the scientific suitability decision making that is made through the DMMO.

Public Comment F-3

So we think we can get to some agreement on how we are going to be applying ambient into an allocation, but we really are requesting the staff to continue to rely on our LTMS strategy as a basic tool for implementing the LTMS.

So, with that, I will say thank you very much. We look forward to working with staff on these issues.

Chairman Waldeck - Thank you, Ms. Johnck. Our next card is Josh Berger and then we will break into closed session. We need to clear the room out and start back up at 12:30, then. Okay.

Public Comment G-1

Mr. Berger - Thank you, Mr. Chairman, members of the Board. Thank you for the opportunity to speak. I am an attorney with the Environmental Law Foundation and our concern here is very particular. We are concerned with the impacts from mining operations, both abandoned and active mines. From the report we heard this morning, it was certainly stressed. It was stressed from the angle of impacts from the Central Valley. There also have been impacts from this region right here, it is not all just draining down from the

Public Comment G-1 (continued)

Central Valley, and we see this in the report, in particular on page 79.

It states – and I am going to just read a brief paragraph here –

"Approximately seven small mercury mines located in the North Bay are not meeting the conditions set forth in the Basin Plan. Responsible parties will be notified of their requirements to come into compliance within five years of the adoption of the TMDL implementation plan. Water Board staff will work with each mine site property owner to determine the details and sufficiency of monitoring and necessary source control actions."

So what we were looking for from the Environmental Law Foundation is actually very specific, a little more information on this such as who is the lead staff assigned to this very important task.

Also, is there a work plan? And where is that work plan for this task? What is the funding level and sources for this, anyone who has done any work with either active ore band mines knows that. It can be incredibly costly and it is very important, but it can spiral out. And if there are no funds, then, to determine what is the plan to get those funds. Thank you.

Break

Chairman Waldeck - Thank you for your comments, Mr. Berger. So we will break until 12:30. I was hoping that we could get through the cards and have our closed session at 12:30, so I appreciate people's intelligence of waiting until 12:30. Thank you.

(Off the record.)

(Back on the record.)

Chairman Waldeck - We have come out of closed session. I would like our Attorney to comment on it.

Ms. Dickey - Yes, I am going to provide the report of what the Board did in closed session as people are finding their chairs. In the case of State of California By and Through the Regional Quality Control Board of the San Francisco Bay Region vs. West Marin Sanitary Landfill, et al., the Board decided not to pursue an appeal of the trial court's judgment. In the cases of the Napa Sanitation District, et al. vs. State Water Resources Control Board, et al. and Napa Sanitation District vs. California Regional Water Quality Control Board San Francisco Bay Region and State Water Resources Control Board, in those cases, the Board provided guidance to the Executive Officer on the features it would like to see in a settlement agreement, authorized the Board Chair to work with the Executive Officer on finalizing the details of the Settlement

Break (continued)

Agreement, and further authorized the Chair to sign a Settlement Agreement that conforms to those details.

Thank you.

Chairman Waldeck - Thank you. Bruce, do you have any comments? Or are we just going to go back into our testimony?

Mr. Wolfe - Right, I think you should proceed. You have still got probably a dozen cards there, and then we will do some wrap-up.

Chairman Waldeck - Thank you. And if we can keep our comments to three minutes, especially if it is things that you have already put into the record that are written, as our staff always does, they give good responses to the written material. So our first three speakers will be Gary Darling, the General Manager of Delta Diablo Sanitation District, followed by Debbie Webster, Senior Technical Advisor for Partnership for Sound Science, and, third, Darren Greenwood, Water Resources Manager for the City of Livermore.

Mr. Schumacher - Mr. Chairman, I have to leave at 1:00.

Chairman Waldeck - Okay.

Public Comment H-1

Mr. Darling - Thank you, Chair Waldeck and members of the Board. I am the General Manager, Gary Darling, of Delta Diablo Sanitation District. We

Public Comment H-1 (continued)

provide wastewater services to 185,000 customers in East Contra Costa County. I am here today to provide a couple of comments, mainly that Delta Diablo Sanitation District considers itself a good environmental steward and has a good track record in terms of investments made by public dollars to be that, a good environmental steward, and to emphasize for you how this TMDL Basin Plan Amendment affects Delta Diablo Sanitation District. It basically cuts our mercury limits by 45 percent.

Delta Diablo Sanitation District, in 2001, opened the largest industrial recycle project in the State of California. In 2003, it opened a household hazardous waste facility. In this year, in 2004, it is implementing a mercury reduction program. If you recall, I was in front of the Board six months ago and you approved as part of our NPDES permit a mercury reduction program that includes a public outreach education on flourescent tube disposal. And that project is underway now. We have a firm on board that is developing the materials that we will be distributing. Our goal, if you recall, is currently we collect about 500 tubes, today at our Household Hazardous Waste, we have to increase that to 3,000 within about three years. That project is the cost

Public Comment H-1 (continued)

equivalent of our rate payors of about a half a percent of a rate increase. So that project is underway.

So, again, my point today is the proposed TMDL Basin Plan Amendment reduces what we got as limits from you six months ago by 45 percent. So that is our major comment. We are impacted. We think that we are good environmental stewards and we have invested public dollars to be that, so our comments are basically, first of all, we do not understand how that happened, so we need further explanation on why that is that we received that reduction.

Public Comment H-2

Secondly, the documents right now do not include how do you get a credit, so I think it is the best interest of the Board to reward proactive programs as opposed to penalize what we think are good investments in the environment.

So how can you get credits? And how can you get certainties? So, if you are going to invest in a proactive program, is there any uncertainty involved in terms of your discharge limits? So, basically that is it. Thank you.

Chairman Waldeck - Thank you for your comments, Mr. Darling.

Public Comment I-1

Ms. Webster - Good afternoon, my name is Debbie Webster. I am here on behalf of the Partnership for Sound Science and Environmental Policy. We also would like to commend staff for the work they have done. It has not been an easy road and we understand the complexity and the difficulties in balancing and doing the right thing with regard to this TMDL.

We would like to say, though, that we were fairly surprised by some of the changes in this recent draft that came out in April compared to what was in June. And my concerns that I am going to bring to you today are based upon that.

First, throughout this process, the TMDL has rightly identified that point source dischargers, both publicly owned treatment works, the POTW's, and the industrial dischargers, were de minimus sources, they were well controlled, they were, as was mentioned earlier, doing a good job.

It also states and continues to state in several places that, to reduce these discharges would be extremely expensive and have very little, if any, effect on the total mercury picture and reduction in the Bay. And so, in light of that, there have been some changes in this most recent draft that will cause problems for

Public Comment I-1 (continued)

the wastewater discharge community, and I would like to talk about that.

First is with wasteload allocations. As was mentioned earlier, the waste load allocation for the POTW group has been reduced. It will not account now for any growth factors. We think it is important that growth factors are accounted for at this time, rather than waiting for the future to see if other things could be done in order to accommodate that. The April draft hints that offsets might be available, but they are still very controversial and have not been shown to be feasible. Pollution prevention programs have been in place for several years and it is not likely that source control efforts are going to be able to accommodate the needed projected growth. For the industrial wastewater waste load allocations, in the draft last year, the combined allocation was based upon all wastewater discharges. In this draft, they are now separated in two different groups, they have different allocation schemes.

Public Comment I-2

We are concerned that, as currently drafted, the waste load allocations could stifle economic growth and limit opportunities for businesses to change and grow.

Public Comment I-2 (continued)

We recommend that the industrial group be put back together and have not that the overall waste load allocation of two kilogram per year change, but that you be given that as a group rather than as individuals or as two separate groups.

Public Comment I-3

The second area which has also been talked about a little bit has been the compliance averaging period. As was mentioned, it has changed from a five year averaging period down to a one year averaging period. This is inconsistent with some of the findings in the TMDL.

First, the TMDL recognizes that rainfall impacts wastewater discharges, but yet a long averaging period is needed in order to account for that, yet that was removed in this draft and we would like to see it back. The TMDL also recognizes that meeting these targets is going to take several years and provides many of the other groups with a longer compliance time frame of five years, and we would like to see – we think it is a fair and equitable treatment that if industrial and POTW dischargers could get the same five year average.

Public Comment I-4

We also have concerns with individual waste load allocations. There have been several commentors

Public Comment I-4 (continued)

regarding that. We would also like to say for the industrial wastewater dischargers we think that, by putting individual loads in the permits as currently drafted, it is going to again stifle some of the economic controls that otherwise would not be if they had a 2 kg per year group discharge, and that the economic factors should not be stifled. It should not be an anti-back sliding issue down the road or require Basin Plan changes.

In conclusion, you know, this draft does contain some significant changes from the prior draft as it relates to point source discharges. We are looking forward to working with staff trying to resolve these issues and have met with – and they have been amenable to talking with us.

We hope that the next draft that comes out resolves these issues. Thank you.

Chairman Waldeck - Next up is Darren Greenwood, followed by Larry Bahr, Senior Environmental Scientist for Suisun Sewer District, Robert Falk, Santa Clara Valley Urban Runoff Program, and Todd Maiden, an attorney for Seafirth Shaw. Thank you.

Public Comment J-1

Mr. Greenwood - Thank you, Chair Waldeck and the other Board members. I appreciate the opportunity to speak. My name is Darren Greenwood. I am the Water

Public Comment J-1 (continued)

Resources Manager for the City of Livermore and, as some of the other speakers, I wanted to come give you maybe a little more specific input on how the proposed waste load allocation is going to affect a smaller POTW like Livermore.

We agree fairly wholeheartedly with the BACWA comments that the waste load allocation for wastewater agencies as drafted kind of penalizes the higher performing facilities, which we consider ourselves one of those. We have implemented a mercury pollution prevention program since about 1999 when we saw the whole TMDL thing coming. We have a plant that performs very well for mercury and those performance based allocations now are translating to really really tight limits. The allocation that we are being given and the proposed allocation right now is roughly 50 percent of what we saw in the 2003 draft. So where BACWA points out that there has been 18 percent reduction, for Livermore it is 50 percent, and our allocation is very very small, less than one-tenth of a kilogram per year is our allocation.

Public Comment J-2

Our main concern about that, other than the equatability of between wastewater agencies, the

Public Comment J-2 (continued)

allocations, is just the attainability of those. Basically, since there is no allowance for growth in the allocation, and Livermore is an area that will see some growth over the next 20 years, we are very concerned that we will not be able to meet that because of the mass basis of the limit. This lack of an allowance for growth was pointed out in the peer review comments by Professor Sedlak, and the staff response – and I do not want to disparage staff too badly because I have talked to them and they have been very agreeable about, you know, a proactive process to work together and come up with an allocation that works for everybody, so even though I am abashed a little bit now, I hope that we will work fully together in the future.

Anyway, the response was that there would only be moderate growth based on ABAG predictions of about 14 percent, which may be true on an average. For an agency like Livermore, let me put some numbers to it. Our flow right now is 6.5 million gallons per day.

We just completed a new general plan amendment, or an update to our general plan that would see us growing to about 10.5 million gallons a day in 20 years, so that is a 62 percent increase. So we are one of the ones dragging that average up, and it makes it very difficult to conceive of meeting these allocations in the future.

Public Comment J-3

Our plant performs very well. Our current mercury concentrations are about 9 ppt, way below your sediment target. So the idea that we are going to get anymore performance out of our treatment plant is probably not going to happen. We run a very aggressive source control program, we have done the thermometer exchanges, we are working with our dentists. The bulk of our other sources are domestic waste, which are really uncontrollable for us.

Calculations right now, when our flow gets to 9 million gallons a day, we will be at our allocation or exceeding it, so the other 1.5 million gallons a day that we are going to get at build-out, I am not sure how we are going to try to meet this mass load with that. Aside from the attainability which I am sure staff will work out and they will maybe look at giving back those 2 kg that were cut out in the latest draft and making it work for all the agencies. It is just the equatability. Our closest neighboring POTW to us has a flow that is about 77 percent higher than Livermore's flow, and yet their allocation is 475 times what ours is in loading.

So we really feel penalized for our good past performance, so I think there needs to be some look at kind of leveling the playing field between agencies even

Public Comment J-3 (continued)

in the wastewater allocation. And thanks for the chance to comment.

Chairman Waldeck - Thank you.

Mr. Bahr - If it is okay, we are going to switch places with the next two speakers.

Public Comment K-1

Mr. Falk - Good afternoon, members of the Board. I think you all know me, but in case you do not remember since I have not been here for a long time, I am Bob Falk. I am counsel to the Santa Clara Valley Urban Runoff Program or Storm water Program, and I would like to present you with some comments on their behalf today. We have been working also with the Bay Area Association of Storm water Management Agencies. I am not going to hit every point on these PowerPoint in the interest of time, but I would like to hit some key ones.

First of all, we recognize and you recognize that this is a big job. What you are talking about in this TMDL, everybody hears the words "TMDL" and we kind of all get freaked out, but what we are talking about is setting a 20-year regulatory program that is designed to achieve a result that the staff has told us is going to take 120 years. This is a big job, it is going to have implications for a long period of time.

I want to start by commending the staff. It has not been easy just to get us to this point. They have

Public Comment K-1 (continued)

done a lot of work, they have reached out to the community, they have thought about a lot of comments, and so, as we go through this today and make some comments, I do not want to lose sight of the good job the staff has done.

Why do we think the TMDL needs more work at this point? Well, we think so for a number of different reasons, some of them are scientific, some of them are policy oriented and, indeed, some of them are legal, and I will probably, even though I am a lawyer, say the least about the last category there on the record for your counsel to address. But overall, the reason we think more work is needed is that the document before you is not based on the most current science.

In particular, there is this issue about the relationship between mercury and sediment and mercury in fish tissue, and the most recent literature – technical literature – is there is no relationship between those two things, and this whole program, this 20 year program you are being asked to enact is based on an assumption that there is a proportional relationship there. That is a real problem. Secondly, we are concerned that the regulatory approach you are being asked to adopt does not take a targeted approach. You heard this morning

Public Comment K-1 (continued)

that the real problem is methylmercury, this bioaccumulative form of mercury that gets into fish tissue. The program you are being asked to enact is a sediment program. It says, "Try and capture and control as much sediment as possible because of the mercuries attached to the sediment." We submit to you, a targeted program that really goes after the problem, methylmercury, would be much more efficient and more effective.

Other bodies that are considering TMDL's are taking this targeted approach. The Central Valley is looking at it, the state of Idaho just adopted it, U.S. EPA has endorsed it. We ask you to go back to the staff and push them a little bit to explain to you why we are not doing a targeted approach here.

Public Comment K-2

The TMDL also does not account for things that are already in the Basin Plan that are very important. One of the those is -- the Basin Plan recognizes this in terms of my clients – the South Bay is a very special part of the overall Bay. It has different geographic characteristics, different flow and flushing characteristics, and the challenges and the economic consequences of trying to do things down there are very different than for the Bay as a whole, yet this program

Public Comment K-2 (continued)

tries to treat the whole Bay as one big unit. That is a problem.

If we were just looking at the South Bay, by the way, the enacted water quality objective for mercury in the South Bay is currently being met, yet the requirements in this program, two-thirds of them will fall on cities in the South Bay, two-thirds of when you ask people to actually do things to address the mercury problems are going to lie on the shoulders of the cities in the South Bay, yet the South Bay's duly adopted water quality standard for mercury is being addressed.

Public Comment K-3

I am going to skip forward because I have hit some of these points. Another problem we have deals with urban runoff. As you recognize, a very large allocation went to urban runoff. They want urban runoff discharges to be reduced by 50 percent. We think, first of all, the allocation for urban runoff is way too large, 160 kg per year for urban runoff. Some of that comes from the atmosphere and what is coming down on the watershed.

I think, Mrs. DeLuca, you recognized that this morning. Seventy-five percent of that 160 kg is already in the beds and the banks of the streams and creeks down

Public Comment K-3 (continued)

there, it is not on the urban landscape, if you will. If we treat it, the streams and creek beds in the South Bay, or throughout the Bay, in the same way the staff is treating the bed of the Bay itself, that 160 kg allocation would be reduced by 75 percent right there.

Public Comment K-4

I know I am running out of time, so I am going to make one more point and then go on. Somebody asked about cost this morning and I know the staff is going to get back to you on cost, but I do want to draw your attention to the comments that BASSMA, the Bay Area Storm Water Association, submitted because they did do a cost analysis of this program. And the annual cost of this program is estimated by BASSMA for urban runoff management programs or municipal storm water programs $500 Million a year Bay-wide for 20 years – we are talking about a lot of money to control a lot of dirt rather than targeting a problem. Thank you very much.

Chairman Waldeck - You heard that about storm water from the League of California Cities too. Thank you.

Public Comment L-1

Mr. Bahr - Good afternoon. My name is Larry Bahr. I have a frog in my throat and I will try also to be very brief because I know it is a long day. I work for the Fairfield Suisun Sewer District. We are located

Public Comment L-1 (continued)

in the North Bay for those of you who do not know where Fairfield is.

We serve about 131,000 citizens of California there, and we serve them with wastewater treatment and also with storm water pollution control. We have both NPDES permits. Staff has worked diligently to develop the document before you. And I would like to compliment Bill and Richard and the many other staffers who have been involved in working on this TMDL. You have had and you will continue to have a daunting task. And the Board members will not know this, but now is the time when I normally hug Richard and say, you know, "Good job." Okay, I will also hug Bill this time, too.

My comments relate specifically to the importance of making sure the waste load allocations are correct and that they also are aligned with comments by Livermore. Once the waste load allocations are integrated into the NPDS permits, changes to these waste load allocations will run afoul of an anti-backsliding. It will be necessary for the Board to demonstrate that revisions to the waste load allocations will not slow progress toward water body compliance. It is highly unlikely that this demonstration will be able to be made. And I will give you as a specific example the Fairfield Suisun Sewer District. We will be expanding

Public Comment L-1 (continued)

our treatment plant by 35 percent during the next five years. This expansion responds to planned growth, it has been approved in the General Plans of both cities within our communities. At the design average dry weather flow, and I want to emphasize dry weather flow, the waste load allocation contemplated in this TMDL document results in a mercury concentration limit of 4 nomogram per liter. And a nanogram is one-millionth of a millionth, so put it in perspective. The District's 2003 performance was 3.2 nanograms per liter, so we were .8 nanograms per liter away from that number. And, by the way, we are among the best performers in removing mercury in the Bay Area. Since our average dry weather flow was normally 20-25 percent below our average annual flow, and that is because, you know, it is wet for six months out of the year, we could expect to violate the proposed waste load allocation each year after our expansion. Therefore, the proposed waste load allocation is a de facto growth cap that may be unchangeable for tens of years because, once it is put into our permit, you are going to have to justify changing it. I strongly encourage that you direct staff to evaluate the unintended consequences and the long term impacts of the waste load allocations included in

Public Comment L-1 (continued)

this document, and I thank you very much for the opportunity to comment.

Chairman Waldeck - Thank you for your comments, Mr. Bahr. Next is – I cannot read if it is a Maiden or Maiben.

Mr. Maiden - Maiden.

Chairman Waldeck - Maiden, okay.

Mr. Maiden - I take it – am I the last person, last commenter, the last one standing between you and the rest of your day here?

Chairman Waldeck - No, no, we have about six more.

Public Comment M-1

Mr. Maiden - Okay, that is fine. My name is Todd Maiden, and although the card said – I am an attorney with Seifirth Shaw, I am actually here today representing the Guadalupe Rubbish Disposal Company. They are a landfill in the Guadalupe River Watershed area.

Chairman Waldeck - And you will tell us how you get from 92 to 2. Okay.

Mr. Maiden - That is my goal. And the landfill obviously supplies an important facet in terms of serving the communities down in that area. Landfill has never engaged in any mining activities or profited from mining in any way. We have submitted written comments

Public Comment M-1 (continued)

already to staff and we will not go into all those points.

A lot of my thunder has been stolen already today by others and we will rely on their comments. I would like to elaborate on three of our comments, however, and focus you on those. And the first, I guess, deals with the big picture of implementation. Dr. Mumley started out this morning saying that this is kind of where the rubber meets the road, and the implementation of this is really, you know, how are we going to get there? How are we really going to make this work? We could have a great plan, but if it does not really – if we cannot implement it, it does not do us any good. I would like you to focus on page 12 of the staff report. There is numerous project objectives, they are all very laudable goals.

My concern is with two of those objectives, project objective 11 states that this plan must consider site specific factors including ambient conditions, and project objective 8 states that in implementing this plan, we should avoid actions that will have an unreasonable – take unreasonable costs relative to their environmental benefits. And many of the board members this morning, I thought, in your initial questions to

Public Comment M-1 (continued)

staff, I could see sort of honed in on some of these factors right away, and I believe it was Mr. Reininga who specifically just went straight to the bottom line, which I think is our position, as well, is what are the costs going to be in implementing this.

In the Guadalupe River Watershed, we are trying to get from 92 down to 2. What are the marginal increased costs that are going to be incurred in trying to reach those goals? And we think that for some of the reasons others have stated, it is going to be an unbelievably high cost and maybe unattainable for several various reasons.

Public Comment M-2

One is just because of naturally occurring background levels of Cinnabar ore in this region that are a precursor to mercury. I mean, this is where they mined the ore.

This is where it all started. When they had these elevated background levels, that this is going to be a problem to compare this to areas where they did not have these kind of background levels. Some of these ores and these sediments occur in areas that would really be considered non-point sources, that are going to be very hard, if not impossible, to control. If you are able to control them, they are going to be inordinately

Public Comment M-2 (continued)

expensive to control.

Public Comment M-3

Second, the naturally occurring ores aside, where there were mining operations and where mercury was produced, some of these are point, but now some of them are non-point sources. There is evidence that a lot of the calcium ores that were left over from the mining operations may have been spread through road beds, so they are spread out all over. How are we going to account for that? How are we going to control that? In essence, for a point I really want to just factor in the economics and the mitigation of whatever the implementation plan is going to be.

Public Comment M-4

My second of three points deals with what I think is maybe a failure to consider all potentially relevant waste load allocation methodologies. In our written comments, we provided staff – yes, sir – we provided staff with reference to an EPA Technical Support document that lists 22 separate waste load allocation schemes, and the main point of that is that we did not feel the current draft report addresses all potentially relevant allocation methodologies, and we would like to

Public Comment M-4 (continued)

see more of a comparison and a vetting so that we get the best possible allocation methodology.

Public Comment M-5

The third and last point deals with – we believe the TMDL needs to focus more on regulating the largest source of mercury in the Bay, that being sediments in the Bay. There is references in the report saying that there is approximately 3 million cubic yards of sediment that are dredged in the Bay every year, and the way I read or interpreted it was that approximately 700,000 cubic yards of those sediments may be disposed of outside the Bay, but 2.3 million, if I am correct in my read, appears to maybe get dumped back into the Bay in other places. Well, this churns up a lot of sediment or exposes a lot of mercury that would have otherwise been, let's say, left in a safe condition.

And so what we would like to see is the Regional Board and staff working more with other agencies so that if this dredging occurs that we can take a little more proactive mitigation measures and go after the sediments that are in the Bay that are more closely linked to the mercury that is subject to methylation. My three points. And thank you for your time.

Chairman Waldeck - Thank you. Our next

three speakers will be David Yam, Chief of Water Quality Caltrans District IV, Shana Lazerow of Bay Keeper, followed by Sejal Choksi, making her debut for the Bay Keepers.

Public Comment N-1

Mr. Yam - Hi, Mr. Chairman, members of the Board. Thank you for the opportunity to comment. We have turned in a letter that outlines a lot of our concerns and issues with the revised Basin Plan. I first would like to thank the staff here. I think they have a very big daunting task, and Caltrans applauds them for the work they are doing to try to improve water quality, and we look forward to working with them.

Specifically, a lot of the commenters and you members, also, have talked about issues that are outlined in our letters, and I will not belabor the point. I think the biggest issue that we have is that, in the revised basin plan right now, the allocation that is attached to Caltrans is based on a percentage share of other urban dischargers, which is kind of a difficult way to measure what would be the equitable amount that would be attached to Caltrans.

Public Comment N-2

We further do not believe that there is enough adequate information in the project report to attach what is directly the association between mercury and

Public Comment N-2 (continued)

roadway runoff, and we will endeavor to go and find this information and work with Dr. Mumley's approach for adaptive implementation to see about outlining the information, work with the Board such that we can get down to an equitable share. Thank you very much.

Chairman Waldeck - Thank you for your comments, Mr. Yam.

Public Comment O-1

Ms. Lazerow - Good afternoon, Shana Lazerow, San Francisco Bay Keeper. You heard me say this before and so I will try to do it briefly, just to remind you that you as the San Francisco Bay Water Board have a lot of power and a lot of responsibility to protect our water, and so in that exercise of that power today, I would like to talk to you specifically about two subjects in this draft TMDL.

The first one is regulation of air sources and the second one is the categorical allocation scheme that you are being presented with. So under the Clean Water Act, this Board is empowered to regulate everything that goes into the Bay. In fact, Section 303(d) requires this Board to regulate all of the sources of pollutants. So the authority to regulate air sources goes along with that. In fact, it is a clear and unambiguous obligation to allocate loads to all sources. And since you are the state agency responsible for implementing California's

Public Comment O-1 (continued)

mercury TMDL in the Bay, your authority comes directly from the Clean Water Act. Any contrary state law would be preempted by the Clean Water Act.

Public Comment O-2

So since I am assuming from how far this process has already come, you are not planning to abdicate your responsibility. Let us talk a little bit about what can be done about local air sources. As we heard this morning, there was some discussion about foreign air sources, air sources that are clearly not going to be controllable by this Board, but something between ten and 59 percent of the atmospheric mercury in the Bay Area does actually come from local sources, according to this draft TMDL. And many of these local sources are known and well understood and, in fact, they are being monitored as we speak today. For example, the staff report from April 1st, rather, the memo regarding air sources of mercury deposition makes clear that the staff has calculated the mass of mercury in crude oil processed in the Bay Area to be about 382 kilos of mercury per year.

The only area of uncertainty seems to involve the amount of that mercury that precipitates down into the Bay, but this uncertainty does not excuse the Board from

Public Comment O-2 (continued)

establishing an allocation and an implementation for that, and specifically how we go about that. I think your concept of working with the Air Board is a good one. I think you have more power than that. I think you can actually regulate through the NPDS program some of these air sources, as well, and I think that you should ask your staff to explore that a little more fully.

Public Comment O-3

So the final point is that there was some discussion about local air sources not being controllable and I took issue with the term "controllable" as it was used in the draft TMDL because it implies that if there is a sense of economic infeasibility, that it might be too costly to implement some of these mercury control programs for local air sources, and that is completely not what the 303(d) section of the Clean Water Act wants you to look at, it is the backstop of the Clean Water Act. Everything else has failed where you look at the things that are cheap and easy, and now we have to actually do some things that probably will not be cheap and they probably will not be easy. So those are my thoughts on air sources.

Public Comment O-4

Finally, I would like to talk to you very briefly about the mass allocations, the allocations to categories of dischargers, and the first draft that we saw of this TMDL just had categorical allocations. I would say that the second draft is working in the right direction by indicating the loads that will be assigned to individuals, but they will not actually be loads that are assigned to individuals. They are just a kind of suggested number.

So I would say we are going in the right direction, but we definitely would like to see individual waste load allocations. The Clean Water Act requires it and the incentive system that is put in place by telling a category of discharger, "Well, you will have to meet your load" is an incentive for every discharger to maximize how much they discharge, whereas if you had individualized loads, then it is clear who is accountable for what and I think that would definitely be the wisest policy decision and would comply with the law, as well, which is a great bonus. Thank you very much and I appreciated working with all of you for the last couple of years.

Chairman Waldeck - And the best of luck with your LLM.

Public Comment P-1

Ms. Choksi - Good afternoon, Chairman and members of the Board. My name is Sejal Choksi and I am really happy to be able to work with you guys as a representative of San Francisco Bay Keeper. So I downloaded this Basin Plan Amendment with great excitement. I remember thinking, "Now, here is an agency that is willing to take the opportunities offered by the TMDL program that is really complicated and tackle a difficult pollution problem in the Bay."

I want to thank staff for their time and energy on this problem, and I am going to do my best today to try not to beat them up too much because I know that they are working hard. But this proposed amendment does not do very much. It simply explains the problem and then says that the solution is for nature to take its course over 120 years.

So, along today's earlier theme, none of us in this room are going to be around to actually see a mercury-free Bay within our lifetime. And this is disappointing because I believe that there is more that we can do right now. So last month at the Regional Monitoring Program meeting, some panelists criticized this mercury TMDL Program and your staff challenged them for not having vision. And so I standing before you today to say that this Basin Plan Amendment needs some vision.

Public Comment P-1 (continued)

I am challenging the Board today to help clean up the serious mercury problem in the Bay with some vision. So in the next three minutes, I am going to ask you to consider taking three relatively easy actions.

First, have the vision task staff to research all of the innovative ideas that are being used around California and around the country to remediate mines and to clean-up mercury contaminated sediment, and figure out if any of these ideas are feasible in the Bay Area. Some of these strategies include aeration and mixing, sulphur chemistry modification, Alum treatment and sediment dredging. And I know that some of these strategies might have environmental costs of their own, but this TMDL process really should be laying out all of these possibilities and comparing them to the harm that is already being caused by the mercury that is already existing in the Bay.

Public Comment P-2

Second, have the vision to ask municipal and industrial wastewater facilities to reduce their loads, and I know that has been an issue today, but it does not really make sense for these dischargers to be let off the hook just because they have less mass loading than some of the other sources because we have to remember that mercury is a bioaccumulative toxin, and this means

Public Comment P-2 (continued)

that the more we can reduce now, the better. So, it in fact seems like wastewater loadings would be an ideal source to reduce because they do have permits, there is no similar capacity in the Bay, and these newer sources, according to the TMDL Basin Plan Amendment, may be more likely to contribute to methylated mercury levels in the Bay.

Public Comment P-3

And finally, the Basin Plan Amendment should take immediate action to warn subsistence anglers who fish in the San Francisco Piers about mercury concentrations in fish. It is also crucial that the Board educate these communities and physicians to be able to easily recognize the sign of mercury poisoning and about alternative sources of protein. Up to 70 percent of the anglers on the Bay are people of color, and of these anglers, approximately 42 percent do not know anything about government health warnings against eating Bay fish. I believe the Board has the responsibility to help protect these impacted non-English speaking residents.

Public Comment P-4

Earlier, Mr. Reininga asked the Board staff to clarify costs of the implementation of this plan. I would like to ask the Board to clarify the costs that

Public Comment P-4 (continued)

these Bay Area residents are bearing by having to eat contaminated mercury fish. And what are the costs to the commercial and sport fishing industries and food industries in San Francisco from not being able to catch and consume and sell the fish out of the Bay? So if the Board would consider these three options and these questions, this Basin Plan Amendment might have more vision, and it might have a chance of gaining some of the public's confidence. Thank you.

Chairman Waldeck - Thank you for your comments. Next we have two speaker cards left, so if anybody else wants to speak, please bring your card down or join the cue here. First is Marvin Rose, the Director of Public Works for the City of Sunnyvale, and next is James Scanlin, Program Manager of the Alameda County Clean Water Program.

Public Comment Q-1

Mr. Rose - Good afternoon, Mr. Chair and members of the Board. My name is Marvin Rose, Director of Public Works for the City of Sunnyvale. I appreciate the hard work that your staff has done to get us to this point.

Sunnyvale is committed, as the other dischargers are, to continue our participation as a stakeholder in this process. And my remarks today are intended to address the problems in the proposed mercury TMDL that

Public Comment Q-1 (continued)

we should be able to resolve if we continue to work together. The proposed wasteload allocation for Sunnyvale is .083 kg per year, which is six times lower – six times lower – than this Board approved for Sunnyvale in late August last year.

One year ago, you directed your staff to develop permit limits in a waste load allocation that would not put dischargers at risk. Under the proposed allocations, Sunnyvale could not increase either its concentration or its mass to meet future growth demands. Sunnyvale's treatment plant already provides advanced treatment that removes 98 percent of the mercury at the current plant flows. As I told you last August, this level of performance is not guaranteed as plant flows increase toward plant capacity.

Further, Sunnyvale Source Control Program is over 20 years old. We know of no practical way to obtain additional reductions from that program. We already recycle approximately 1 million gallons per day of our effluent, and if we were to spend an additional $20 Million, we might be able to increase that to two million gallons per day, but that would only reduce our mercury discharge by approximately 5.5 grams per year. That works out to approximately $4 million per gram in capital costs alone.

Public Comment Q-2

The 2003 TMDL draft acknowledged the need to accommodate growth while this version of the TMDL asserts there is no need to address growth. The projected attainment period under the proposed TMDL, as you have heard earlier today, is 120-200 years. It can safely be assumed that Sunnyvale will grow a great deal during that period of time. Our history shows that population growth will result in a proportional increase in both wastewater flow and effluent mercury. Based on past growth restrictions, Sunnyvale invested in a 29.5 million gallon per day plant, of which approximately one-half is already committed to current flows.

The remaining half of this investment would be made worthless under this proposal. The proposed waste load allocation leaves Sunnyvale with no practical way to treat the additional flow, other than imposing connection bands and other growth and development limits. Not only that, the lawyers have pointed out, as you have heard also several times today, that federal NPDS regulations require that waste load allocations to become mass limits in our permits. That will happen. If it does happen, we foresee great difficulties under the federal anti-back sliding provision to move them back, even with justifiable reasons for doing so. In other words, the growth curves could last indefinitely.

Public Comment Q-2 (continued)

The TMDL report no longer attempts to justify this growth by claiming that mercury and POTW discharges is more biologically available and hence more dangerous than all the other mercury in the Bay. It assumes that all mercury is equally responsible for methylmercury production. The benefits of imposing this ban on municipal growth are not readily apparent.

According to the TMDL report, all Bay Area POTW's account for only approximately one percent of the estimated annual mercury loading. Since the TMDL report informs us that the proposed fish tissue, methyl mercury residue target, will not be met for 120 years, this means that the benefit of a growth ban will only be to shorten that process by a year or two, at best. We question whether this is sound public policy. Given all of the legal, scientific, and technical flaws that have been pointed out by Sunnyvale and other affected stakeholders, we believe that the TMDL plan does not justify this precipitous and dangerous approach to social engineering.

Public Comment Q-3

Sunnyvale would like to join with the Board and others in working cooperatively in the coming months to attempt to fix these problems. We would also like to ask that the record remain open as we continue to work

Public Comment Q-3 (continued)

on this TMDL throughout the coming months. Thank you for the opportunity for comments.

Chairman Waldeck - And our next speaker, James Scanlin.

Public Comment R-1

Mr. Scanlin - Good afternoon, Chair and Honorable Board. My name is Jim Scanlin, Alameda County-Wide Clean Water Program Manager. And I would, again, like to thank staff for the work they have put into this TMDL and proposed Basin Plan Amendment, and I would particularly like to thank the Board for your comments and questions you raised after the presentation this morning. I think those are all the issues that we wanted to bring up, as well.

As we have been discussing, mercury is a very difficult issue to deal with. I think Board Member DeLuca mentioned how a lot of the source is atmospheric deposition, there is legacy sources, and then there is also the issue of methylation, which is confounding our attempts at solving that problem. And, also, as I think a few Board members might have mentioned, the mercury does not fit well into the TMDL framework, does not fit easily into the TMDL framework, in this case particularly because a lot of the permitted discharges are not the primary sources of the mercury.

Public Comment R-1 (continued)

The primary concern from the Alameda County-Wide Clean Water Program from the storm water perspective, is that we are asked to come up with a 50 percent reduction in our mercury discharge and Bay-wide, that is about 80 kg down from 160. And we do not have any confidence that we can get there. There are proposed actions in the TMDL, for example, there is recyling of fluorescent lamps is probably one of the biggest activities than other sources, you know, thermometers and that type of thing. There is increased sediment management activities like storm drain cleaning, street sweeping, channel dredging, and then it also talks about the new C(3) requirements where we are going to be treating storm water from new sites. But we do not believe that – there is no analysis in the report that suggests that that adds up to anywhere near 80 kg, and our estimate is that those activities will lead us well short of the 80 kg. It might be more on the order of, you know, 10-30 kg, maybe – Bay-wide through these different activities.

And we have done some preliminary analysis of what we might be able to get from these various activities. So, again, we are a long way from – we think we are a long way from getting to that 80.

Public Comment R-2

As was mentioned this morning, the Board estimates that 27 kg per year is going directly onto the Bay from atmospheric deposition. I believe the estimate was 55 kg is deposited in the Bay Area watershed from atmospheric deposition, and, for us, the only way to really control that, although you can get some from street sweeping, the only way to really control that is through treatment systems, treating our storm water.

Public Comment R-3

And several people have mentioned the cost. BASSMA submitted a letter that I think Bob Faulk mentioned that outlines the costs, and I think we are looking at an estimate of several hundred million dollars a year to treat storm water. And I think this is not an unreasonable number if you look at San Francisco has a combined treatment system, and I am not very familiar with the system, but I think they spend something over a billion dollars to build their treatment system there, so this is a very expensive proposition.

Public Comment R-4

So, in conclusion, we would like to request that the staff re-work the TMDL allocations and come up with an allocation based on the activities that are suggested that would be more in line of what we might think are reasonable reductions for storm water. Thank you.

Chairman Waldeck - Thank you for your comments. Okay, is there anybody who finally got up the nerve to come up and speak, and really wants to speak now? If not, I will bring it back to the Board to ask any more questions of staff, and staff give a brief overview that we are on the right track addressing the concerns of what goes on, and so I will let Mr. Muller ask a couple of questions.

Board Discussion

Commissioner Muller - Yes, I have a couple of comments. I guess one of them that – oh, maybe a comment first – with all our POTW's doing such a good job, we should not have a mercury problem in the Bay by what we heard today in comments, and I compliment them all for doing a great job, and I know you are working hard at it, and I think it is because of us, we are making you work hard at it. So I thank you for that.

I did hear a couple times also, Tom, that we are looking at good sound science, and we have always prided ourselves on looking at good sound science, so I think we need to address that a little bit. I am a bit disappointed in the comment regarding vision because I really think we started with vision to begin with by even looking into this type of situation, and I always look at a regulatory agency as at least making a start to move down the road with some vision to try to come up

Board Discussion (continued)

with a solution, and it is not easy. It is a very difficult thing to balance out there, so you have got a lot of compliments, so you have to take those compliments, too, with other comments. So I want you to understand from my point of view that I believe the vision has started, you have it there, and you are going to continue on with that.

My other comment would be to keep the record open, maybe. Since this is such a contentious issue and such a difficult issue, I do not know how much longer staff can keep it open, but it is something that we could go on forever by keeping it open, also. So we do have to kind of come to a conclusion and life with TMDL's, that is my perspective. Another comment on the fish notice for the underserved in our Bay Area, I think we do have it listed in multiple languages if I am not mistaken in my memory. Is that correct? To ensure that people are not eating above the limited amount of fish in the Bay. So we want to remind ourselves to keep that open there. And then – I will defer to other members right now.

Commissioner Reininga - Thank you. I have a long list of questions, but rather than go through them here, I wanted to ask our Executive Officer, Bruce, are you looking for some direction from us at this point?

Board Discussion (continued)

Or do you want to take the comments that you have heard today and the written letters that have been submitted and then come back to us at the September meeting? Is there something that we could help you with today? Give you direction?

Mr. Wolfe - Well, I think what you are doing right now is helpful in pointing out things that you have heard that definitely are unclear or are issues that we need to make sure that we have adequately addressed or that we make very clear.

Commissioner Reininga - In other words, you want me to go down my list?

Mr. Wolfe - And if you have got a list, that would be helpful because I think John Muller had said, in that we want to make sure that we are moving forward, we can keep the record open and continue to work through this. In fact, we are intending to very much be working with all the stakeholders as we approach the next board meeting, but at some point we have to make sure that we sort of close the record and say, "Okay, this is sort of our universe of what we are evaluating and let's use that as our basis to move forward." And so, naturally, that is one of the ideas today is to, as much as possible, get those ideas, concepts, concerns out so we

Board Discussion (continued)

make sure that we are moving forward both with your folks' understanding of the things we are looking at further and also we are not missing things as we move forward.

Commissioner Reininga - Well, I will try to do this quickly and broadly, then. My big concern has always been a cost benefit ratio, that is for everything that we have ever looked at as long as I have been a Board member here, so we do not want to be spending a lot of dollars to get just the last few ounces of mercury out of the Bay, and we want to be very sensitive to the cost issues. Several comments that we are not using the latest scientific information concerns me because I think we are so good at that. I have always bragged about how good the staff is at that part of it, so I am concerned that somebody would think that we were not up to speed on that, and I have my doubts about the factuality of the statement, but I just have to raise that we want to use the best and the latest science.

And then, just as an overall view, I am thinking that the dredging issue maybe is our best opportunity to remove mercury from the Bay at the lowest cost, and have we in fact – that chart that we have gone through, is that something that we need to study? Let me re-phrase

Board Discussion (continued)

that – I think that chart is something that we need to study and see if maybe we can take more out of the dredging or even the erosion, as somebody suggested, and perhaps less out of the POTW's that are going to be so expensive to change, and they have done such a good job in eliminating mercury to this point. But those are my overall thoughts at this time.

Chairman Waldeck - Shalom?

Commissioner Eliahu - Yes, I heard a lot of comments that we reduce the location, especially for wastewater by 50 percent, 60 percent, 70 percent, and in here, in this table, I do not see any reduction. Wastewater is 16 – 16 states. So –

Mr. Wolfe - Yeah, we can – I think there is both a little bit of difference in what some of the references were to the June 2003 report, some of the numbers in there and the difference between what we have now. Tom will speak to that in a moment when we are done here, but I think there are some numbers as to how that came about.

Commissioner Eliahu - But the location for wastewater in that table did not change. The existing load today is 16 and the proposed is 15 to 16.

Mr. Wolfe - Right, from that perspective. And I think the two points the stakeholders are bringing up

Board Discussion (continued)

is that, 1) the 16 is different from what it was in our preliminary report last year –

Commissioner Eliahu - Oh, I see.

Mr. Wolfe – And, 2) that it could be construed the way we have written it up that it then limits growth.

Commissioner Eliahu - Okay.

Mr. Wolfe - And we will touch on that just briefly here at the end.

Chairman Waldeck - Go ahead, Jo.

Commissioner De Luca - Yes, I have two questions. First of all, I just feel that there is still some confusion about this distinction between generalized mercury in the Bay and methylated mercury, and I think we are hearing a lot of conflicting comments about that. It is not clear to me any more. So there must be confusion because I have heard Larry address it many times and hearing it today interpreted through other points of view has elicited a new level of confusion in my own mind, so I would like to hear that clarified.

The secondary question relating to that is this suggestion that we do not have – that if methylmercury is the more difficult of the problems or the more invasive in terms of public health if it is the most

Board Discussion (continued)

significant in that regard, that we do not have a targeted approach in terms of controlling methylmercury. So that is a question that was raised in my mind today.

The second point has to do, again, with returning to this issue of how we interface with the Air Resources Board and whether we do have any legal authority to impose regulation over the purview of the Air Resources Board through the mandate to us that comes down from the Clean Water Act. I think that is a very important question. And if we say that these are government issues that have to be resolved through government processes, then the answer could be that we are government, and perhaps in some regard the buck stops here and we have to join the issue.

So I think that is something that has to be addressed, why we cannot in all the years that we have tried and attempted through a variety of political channels to create some sort of a nexus with the Air Resources Board, why we have not been politically successful. And I really see that as key in terms of trying to get a handle on how to control that problem. So those are the issues that are suggested to me today. And I want to thank all the participants who have given the testimony. I think they have been very informative and very helpful to us.

Board Discussion (continued)

Chairman Waldeck - Thank you, Mrs. De Luca. I served on my City of Mill Valley at a Bay Area Council joint meeting which had to do with business and housing development with the Secretary of Business and Transportation and the Secretary of Labor, and while I was there I did talk to the Executive Director of the Air Board, Jack Broadbent (phon), and especially with topics such as this, as well as Dioxin, we have been talking with members of the Air Board about having a joint meeting, and I would welcome the public to bring up points – you just do not want to have a meeting for the sake of a meeting because you kind of what to develop a good agenda outside of the things in the air fall in the water, the things in the water evaporate in to the air, so if we can help narrow that down some, that would help quite a bit.

I am looking on the sheet here at the current mercury loads and proposed allocation. I would like to go into that with those numbers being fairly firm. I mean, we have been at this meeting here a few hours, we read our packet for a few hours, but I really believe that those numbers there are places of thousands of hours of work and probably hundreds of thousands of dollars, millions of dollars worth of scientific effort here. So I would like to go forward with those numbers

Board Discussion (continued)

being kind of strong because I think that if we start trying to fudge that number of what the existing load or what the allocation is, then we do not have anything to move forward on.

I do agree with some other comments that I am confused about why are you focusing on mercury as a source of methylmercury, let's discuss how methylmercury is formulated. And I cannot figure that out if that is actually true that you can have a bunch of mercury, but it is okay as long as methylmercury is not formed, or is it a good duck to get us off looking at mercury in just the formation of methylmercury? So we kind of need to have a sense of that there.

And I would also – in terms of keeping the public or this comment time, John made the suggestion to keep it open longer.

Can I see a show of hands here of people who would like to comment more upon this after seeing – because I would be inclined to open up for two more weeks or something like this, but we are on a time line. I think this Board has done a good job of outreach. So is there anybody that would need two more weeks to send in comments at all? Because otherwise I would not just keep it open for the sake of keeping it open.

Board Discussion (continued)

Mr. Wolfe - Well, I think the point that may be more important is that if what we have here, if we are making further changes, what is the opportunity for the public to look at those changes and make comments on those changes. And actually, in our public notice, we have said that we can re-open the public comment period for comments on those changes.

And so, rather than have the broad continuation of the public comment period, we would like to have it a little bit more focused on where are those issues that we are potentially changing and how those changes then affect the parties and ideally solve the voiced concerns.

Chairman Waldeck - There is one person that raised their hand and I want to be fair to that person. I would prefer to go with the way Mr. Wolfe said, so there will be chances to chime in there. I just wanted to make sure that everybody felt that they were heard.

And I believe that is all the comments – oh, plus, we also know that we have other TMDL's coming through and there will be some overlap and interplay with the mercury TMDL, so I would like to have the mercury TMDL kind of strong, you know, in terms of, you know, if we are going to fudge in certain ways and change numbers certain ways, or take a look at things, that you keep

Board Discussion (continued)

the mercury TMDL strong because as the other ones come through, if it is not a strong basis of the mercury TMDL, it will be a lot harder to do the other ones. Yeah, a good model. Do any other Board members have comments? Bruce?

Mr. Wolfe - Yeah, I think it would be useful both for your benefit and actually for the audience's benefit if we do make some selected comments on what we have heard because they think there is opportunity to clarify, but also to make sure you are clear on the approach that we are taking. Tom has a number of things he will comment on and then I have a few also.

Closing Presentation

Dr. Mumley - I am trying to put them in a logical order here. I have a hard time coming up with an easy answer to say why we are not doing a better job, but I certainly take your direction sincerely that we have to have a better response.

On some of the cost stuff, just generalities, I know off the top of my head some numbers and Larry is good at this, too, but you heard a cost estimate from the runoff community of approximately $500 Million per year. To put it in perspective, the wastewater community spends at least $500 Million a year to operate and maintain their wastewater treatment plants. That was happening on an annual basis already and we spent on

Closing Presentation (continued)

the order of $3 Billion starting 30 years ago to build those plants. So we indeed have in the past invested considerable public resources in that regard.

Currently, I would estimate we spent on the order of $50 Million to manage runoff, and that is a nominal number based on the sort of fee structure that has been generated and maybe $10 per person in the Bay Area. So there is – if the cap is $500 Million, and clearly we are not talking about driving those kinds of costs just for mercury where our goal is multiple benefit, and it would have to take into account a number of other issues – water supply flood protection, stream protection, and land management to justify that type of infrastructure investment.

But the reality is we need to think about what it is going to cost to manage all runoff and all pollutants of concern and resulting consequences to certainly justify those type of expenditures, and that is a logical outgrowth of this TMDL process, especially when you consider all of them. In the short term we are looking at what bang for the buck getting with current expenditures. That is the most and best early implementation scheme for runoff, so we are not talking about substantial changes in existing expenditures. So

Closing Presentation (continued)

that is just – I want to give you a little bit of dollar perspective.

There is this issue relating to changing the wastewater allocations and there are two issues – there is a communication issue or maybe I would call it a lack of communication, and then there is a substantive issue relating to the change. I take full responsibility for both. The first is that we did re-calculate the numbers and it came up differently, and we put out the public notice and the change without telling the affected parties that the numbers had changed. Mea Culpa, I mean, this was all happening at the last week, so we were pulling it all together and there was a lot of factors, I do not want to get defensive, but we could have given people heads up. The concerns would still be there.

Now, I think most of the concerns are frankly over-exaggerated because they are based on a perception that this recalculation will result in mass limits and permits will result in growth limits. That is not how it will be implemented and when we explain – it is explained that we are talking about an aggregate waste water allocation of all waste water discharges, and we did the calculation based on an agreed upon concept, so we changed the statistical methodology to be more

Closing Presentation (continued)

rigorous way of accounting for current performance with recognition of variability and then all that variability adds – and account for the multiple variability of all the dischargers coming up with a gross number, and then we take – that gross number did change, we had it for the Municipal Wastewater folks who went from 17 to 14, and we already know from talking with them that we probably might have some wrong numbers used and so there is already, pause, an opportunity to recalculate. And we have already got this process going.

The secondary part is that we take the total and then back calculate individuals because the law says we have to have individual wastewater allocations. And we, for lack of anything better in front of us with the time constraint, we chose percent of current loads as the factor to back calculate the total to individuals.

And the unfortunate consequence, and in hindsight probably the worst – either it was the worst way to go or the best way to go because – the worst way because it penalizes the good actors who have the lowest proportion of lows relative to how much they discharge. And you heard from all of them. If we use another factor, you probably would have heard from that set of dischargers because the set of – some dischargers ended up with a

benefit in the recalculation, obviously. By clicking on the good actors, they are the ones who work with us and they are the ones who are very comfortable reviewing an improved, better allocation scheme, and we already have a dialogue going to come up with a more fair, equitable allocation scheme. So no one would be under this imminent threat of compliance constraint or growth considerations.

I think I have agreement in concept already in the works with the discharge community and I think they eluded to that. Besides, though, those individual waste allocations are not intended to be implemented directly as mass limits in the permit. And that is a significant issue that we have to realize. They have an effect – they affect what goes in the permits, but they do not have to be directly enforceable as mass limits and that is not our intent. And we are working on that with the EPA and the wastewater community, as well.

Commissioner Eliahu - Well, you mean the existing load for waste water changed? Now we have it 16 kg. Was it different a year ago?

Dr. Mumley - Yes.

Commissioner Eliahu - Was it more, less?

Dr. Mumley - There was a calculation of what

Closing Presentation (continued)

the current load is and, yes, and we used a new year's worth of data, that we have another year's worth of data to consider, and there is the issue that that new year's worth of data may be essentially skewed for economic reasons, as San Jose pointed out, so that it may – but in any case, the last year worth of data had loading significantly less than the previous year's, so it bring the average down partly.

We are looking at re-visiting what are the appropriate years to average and how to best account for performance, that I think will give us a more rigorous number that would be livable.

Mr. Kolb - It is important to the Board to understand if the Board adopts a permit limit, the discharger's performance in order to consistently meet that limit is often several multiples lower, so if the Board adopts a limit of 10, whatever it is, the discharger's average performance might be more like 3. So that means there is often a big gap between what you would put in an allocation and what you actually expect to be discharged vs. what the permit limit would be. Permit limits are technically a good deal higher because they have to take into account variability, seasonal operating ups and downs, that kind of thing. So you cannot take the allocations that are in this table which

Closing Presentation (continued)

are intended to predict future actual loadings, and say that is what the limits are going to be.

Commissioner Eliahu - It does not reflect here what you are saying. You are saying the existing right now, let's say 16, so if that is ratio, saying it is different, then we should allocate like 50. And you have the same number.

Mr. Kolb - If you add up the totals in permits that we would be bringing to the Board, it might look more like 50, but that is not the same as what we would anticipate that the dischargers would actually be discharging. Most of our secondary limits, for example, are 30, and many of our dischargers are consistently under 20. They need to be consistently 30. All I am saying is there is a big difference between allocation or an anticipated future loading and what the permits say.

Commissioner Eliahu - Again, the existing 16 – allocation is 16.

Mr. Wolfe - As a group, as the overall group.

Commissioner Eliahu - As a group. The existing also came from the group.

Mr. Wolfe - Right. But in theory, when we put it into a permit, and in fact we are looking at an approach of doing a regional permit, region-wide permit

Closing Presentation (continued)

for this, that really there is no effluent limitation by elation until we back into whatever we have put into the specific – let me say it another way – the group would be limited to in this case POTW's limited to 14.

The numbers anticipate variability and attempt to accommodate for that variability and ideally some growth so that it would only be triggered once all of the dischargers all at the same time had, for instance, operational problems, so that in theory one facility might have a problem, but the others would be fine, and that would not necessarily trigger any violations.

So that is – how it gets translated into the permit is key and I know many in the wastewater community are anxious to see how it gets translated into the permit, and we are working on a draft region-wide permit to use that as a vehicle. But that – in this case it is sort of working backwards in that it is not the same to say that the numbers in this table will become the effluent limitation.

Commissioner Eliahu - Okay.

Chairman Waldeck - Let's get back to Mr. Mumley's comments. Do you have more comments to make?

Commissioner Reininga - Before we go back to Tom, could I just ask one question? When there is a limit fee or exceeded, what is the penalty?

Closing Presentation (continued)

Counsel - It would be what is in the law right now for minimum mandatory penalties and when we were doing interim mercury limits, we were basing that on a statistical analysis which said it was based on the pooling of all of the secondary dischargers and then three standard deviations which is a statistical concept to take into account variability. And in those numbers, the actual permit limit was several multiples of what the average performance was going to be.

Commissioner Reininga - I understand that, but somewhere there is – if something – if in the aggregate the limit was exceeded, now you have a group of dischargers, some of whom have exceeded their allocation and others who have not, so how does the penalty – what is the penalty here?

Dr. Mumley - Want me to take that one?

Commissioner Reininga - Yeah.

Dr. Mumley - That is part of the challenges that we faced when we started thinking through this and sitting down with legal counsel, that was one of the questions they asked us. For implementing an aggregate limit, what are the enforcement consequences? How do you deal with that? Is it all for one and one for all? And then how would you divvy it up?

Closing Presentation (continued)

What we are working on is a scheme that would, if the aggregate was exceeded, then it is just part of like you would have to work with us on it, but we would propose that you would consider taking enforcement only on those dischargers that could be accounted for causing the exceedance. So that is where these individual waste allocations could be the vehicle to consider that, if anybody was within their individual, they would not be considered.

We are also looking to submit some other enforcement approaches that have been used elsewhere where you look at the percent of the exceedance as part of the penalty, so a little bit more -- a little bit above is not treated as grossly as a significant increase, so there is – when we are aggregating the performance of a lot of players and currently it is an annual average aggregate, there is actually going to be plenty of earning warning as to whether there is something going on, and I think –

Commissioner Reininga - And it sounds like plenty of flexibility, too, so that the chances of anyone being charged a penalty are fairly remote.

Dr. Mumley - We are also visiting a scheme with a lot of details we worked out that, by using the group

Closing Presentation (continued)

permit, this Bay Area Watershed-wide permit, we would have all the dischargers working together so that they could work amongst themselves to head off a problem at the pass, and I know there is big concerns about the lack of specificity of any offset approach, but the only way we are going to get specificity for an offset approach is to make it happen through some vehicle like this permit because otherwise we would be just doing it in the abstract.

So that is where I think in the interim here, this is the tool that we intend to use to work with the affected parties as this proposed permit would be a way of showing how it would be implemented and how we would ask these real questions, not in the abstract, but based on how we have proposed to implement this. Now, you would not consider this permit until after the mercury TMDL would be enacted, but, for example, we also think once we do it we have a template to consider implementing the other TMDL's so the other TMDL's will not have these issues before you in the abstract.

They would immediately be considered in the context of how we resolved mercury via this permitting mechanism. And we were going to look for a similar mechanism for urban runoff. That is something that we have not discussed with you yet, but the concept of

Closing Presentation (continued)

addressing all the urban runoff dischargers in a region-wide permit, giving multiple benefits, certainly administrative, but also a way to make sure we focus efforts on where they will have most benefit, whether it be mercury or other pollutant drivers.

I just wanted to remind you, and it is something that Richard brought up, but two of the most critical areas we are challenged with is the issue of methylmercury and, believe me, if it was easy we would have a methylmercury focused solution, but we have consulted with the experts, we have convened the experts in partnership with the San Francisco Estuary Institute in this building recently, and we are looking at the state-of-the-art and trying to deal with methylmercury in an estuary. And fortunately things are happening. There are efforts associated with the Hamilton Base closure and restoration effort. The Corps of Engineers is putting very sharp people onto the issue of methylmercury. We have got Cal Fed partnerships. And we have the Prop 13 grant of $1.2 or $1.3 Million specifically to address methylation processes in selected areas around the Bay and the other area is urban runoff, the significance of the loads, and what can we do about it, the feasibility of control, that is

Closing Presentation (continued)

the other Prop. 13 project for another $1.3 Million. We will be working with the Estuary Institute to improve our understanding of loads and what we can do about it.

So that is in the spirit of it. We are hitting the big issues straight on, and they are not going to be resolved overnight because those studies are going to be three years.

Commissioner Eliahu - So we do not know how to reduce methylmercury production?

Dr. Mumley - No. You know, in fact, you cannot have methylmercury without mercury. So that is partly when we are saying – looking at total mercury is not – it is just that there is not any well-defined relationship, but there is a relationship because you have to have mercury to have methylmercury and there is this debate whether it is new mercury or old mercury that methylates. If it is indeed only new mercury, then the issue of erosion of old sediments may not be the issue that it is being made to be, but those are the complications that we are challenged with balancing, as I eluded to in my introduction.

Mr. Kolb - I did my PhD thesis on mercury methylation and I have been following this literature for many years, and the truth is that no one right now knows how to control or manipulate mercury methylation.

Closing Presentation (continued)

Methylmercury is probably way less than 1 percent of all the mercury, but it is 100 percent of the problem. If it was not for methylmercury, this organometallic complex that forms, we would not have a mercury problem.

In all the clean-up's that I am aware of anywhere in the world, the solution has been to go after mercury. At some point, somebody may think of a chemical or some other manipulation to stop mercury from methylating, but right now the best tool that we have is to try and reduce the amount of mercury in sediments. So we are going with the best that exists, I believe.

Commissioner Eliahu - Because we do not know how it is –

Mr. Wolfe - Well, and I think the other way to view that is that we want to give the source groups credit for doing measures that they are likely otherwise to be doing such as the storm water program, controlling sediment, controlling erosion, and we want to be able to give credit for those measures because it does control sediment and those pollution prevention measures that have been brought up today. So we want to be able to celebrate those and move forward and not say that until we have it completely honed as to how the methylation process in itself can be controlled that we cannot make any progress.

Closing Presentation (continued)

No, we want to move forward with the measures that we are doing and use those to be consistent not only in achieving the mercury TMDL, ideally also achieving other TMDL's and making that coordination as – Mr. Waldeck, you brought up the idea of the overlap with other TMDL's – we would like to see where there are common measures that can be done to control mercury, control PCB's, and you even heard mention today about how we could look or should be looking at the legacy pollutants more in a group.

And that is really where we are trying to go with this, is not to come up with a whole new level of regulatory oversight or permitting, that the whole focus here is to build on the measures we are doing now, use our current permits, but still look at ways we can move forward and continue to collect the data that either is going to tell us to go in a little different direction, or that the measures we are using are not actually showing progress. So I think, really, what we are trying to do is rely as much as possible on the existing measures and, as it has been noted, that this is being written up as a 20 year process.

It actually is much longer term that we know that this is going to be with us for quite a long time, but we do want to, over the coming 20 years, provide

Closing Presentation (continued)

basically a blueprint on how we are going to proceed, but we recognize we are probably going to need to come back in five to ten years to modify the Basin Plan Amendment to incorporate new information, both the scientific information, but also on how the control measures actually work, or any new information we have in terms of what are the loads coming from, either the bed load or through the Delta.

And so there is a number of checks and balances that we are trying to incorporate in here and I think that is something we do want to talk further with the regulatory community is that do we have it essentially right to be able to move forward? Are there things like we are hearing some today? Are there things that are significant concerns that we should look at? Are there ways to address it today? Or are these concerns that they may come up over the coming 20 years? We need to be aware of them, but we do not necessary need to address them today because, as we have with methylation, we may not have all the answers to address them today. We just need to keep them on the plate as we move forward.

Chairman Waldeck - I still want to finish Tom's –

Closing Presentation (continued)

Dr. Mumley - I have one last response given the issues – on the issue of new science, new information, the new information referred to we paid for. We are aware of that. It is just recently published and the published results are very new. So – and it is dealing with the complicated challenge of dealing with bed erosion.

Now, my quick review of the comments raises questions about what are the direct implications of that new information, and are they as profound as proposed or commented? That is something we will have to look into. And if indeed they are, I would say that would be cause for us to regroup. But this will be the dilemma because the biggest – I talked about the procedural legal complexities associated with Basin planning. You have to have a proposed Basin Plan Amendment six months before you could possibly bring it before the Board for consideration.

And we are also going to be challenged with emerging new information and is it sufficient to hold the presses and regroup because it would add substantial more time and unfortunate administrative costs to the process, but certainly if it has a profound effect on solving the problem and preventing consequences that are unintended or not intended, that is really where we will

Closing Presentation (continued)

consider it. So we will take that into account.

And there is further work in this whole area being driven by the salt pond conversion issue, adding ferrous into the whole methylmercury question because then it will clearly – we are going to spend all these resources to get these wetlands back, we do not want to create a problem. And so those resources are being used wisely both in terms of dealing with methylmercury and dealing with sediment transport in the system. So we have a lot of new things that will be happening, but I think the true answers will – the real answers that we could use are going to not be available in three months, they are going to be like three years and beyond.

Chairman Waldeck - And then three years from now there will be new information that will put us out three years, so –

Dr. Mumley - So the most important thing that we are going to focus on is making sure that – I eluded to this in the beginning, that perceived consequences will not be realized and unintended consequences will be accommodated quickly in this process because we are managing risk in this plan of action and that is sort of the goal in how we want to focus the dialogue with the concerned parties to make sure we do not do something

Closing Presentation (continued)

that is not doable and in the mean time do the best we can with what we have available.

Chairman Waldeck - Before Bruce gets into his comments, Mr. Muller?

Commissioner Muller - Yeah, just quickly in my concluding statements here, I appreciate Shawna's comments about we have the power and I could see why she is going into academia because she keeps teaching us every meeting to remind us that we do have the power. And so I appreciate that and wish her good luck.

But my other thing is, too, is that we are sitting in this position of power and, you know, we are no different than all of you out there. I mean, we have a concern for the environment, but I think we also – myself personally, we have a concern for the balance of the environment, how do we meet these goals without – I like Tom's last comment about consistency regarding our permit holders because, personally, I do not want to change the rules on him during the process here. I mean, I think we have to look at our consistency to make sure that we are not changing the rules in midstream.

So I know the TMDL's are going to come up, their permits are coming up, they have already just renewed their permit, so personally I think we have to be cautious on that. So I would like to see us stick

Closing Presentation (continued)

with as much consistency as we can. And I think we have made a start at it, as I said earlier, that we are moving forward to get this mercury TMDL thing going, but it is a very complex issue and I appreciate us at least giving it a whirl and I appreciate us having the power to – I think we are privileged to have this power to start the process, so hopefully we can make the best decisions possible for everyone.

Chairman Waldeck - Thank you. Some concluding remarks?

Mr. Wolfe - We have obviously heard a lot and I think I even commented to Chair Waldeck and others that today was important both for the Board to hear, but also in my mind equally so that I was hearing all these comments and concerns and being aware of where the issues were. We have talked, a number of us have been talking over the past couple of weeks about where we can move forward and we want to, as much as possible, work under the auspices of the Clean Estuary Partnership here and the reference to that earlier in that that is basically the effort that we are doing in conjunction with the Bay Area Clean Water Agencies, the various storm water management agencies, and other regulated groups to try to have open communication and work together and pull the resources, and we have our monthly

Closing Presentation (continued)

meetings scheduled a week from Monday.

We will want to include this on the agenda there and basically summarize the themes of where the comments are that we have heard to date, and the next step in my mind is likely then to set up a series of meetings where we can go through some of those issues with interested parties to see where there are things because, as Tom says, there are already things that we are looking at, have some ideas on how to make what is in the report more consistent, both to provide that flexibility, but also to make sure there are not any unintended consequences that, you know, come back to bite us, so that we want to use July as a time to have some of those meetings to work through some of the issues and then, at that point, we are also working through the response to comments, basically have the dust settled at the end of July and see where we are because at that point with our clock we will need to consider whether we do need to change the schedule, the September meeting, or the focus of the September meeting.

Right now we have noticed the September meeting as being consideration of the item and noticed that we would have the public comment period or the public

Closing Presentation (continued)

hearing open to consider any changes to what we have made. So we want to make sure that the process throughout is sufficiently open, that we are getting all the best thoughts from the community that we have a chance to consider those and sit down and say, "How can we make this thing work?"

But also we have to recognize that we do, then, whatever we come up with, we need to make sure that it is in a public process considered so that those changes are clear to everybody where we are making changes and what the difference is. As Tom says, you know, one of the things that has been a surprise is what was in our preliminary report from last year vs. what is in here now. And so we do not want to wake up in another month or two and say, "Okay, we made some changes," and have other people say, "Gee, you made the changes. It was fine before and now it does not work." So we are going to address that. So at this point, my recommendation is to close the public hearing, but then we consider re-opening the public hearing in September either for a broad review of where the report then is, or ideally more for the changes that have been made.

And so, in my mind, this is the way that we can move forward and try to focus on the issues we have been

Closing Presentation (continued)

hearing here and recognize, then, that there is going to need to be an end point at some point as to how we consider the public comment because we do not want to get into that never ending loop that Mr. Muller referred to. And so we do have a chance to check back in at the end of July and sort of say, "Okay, are we on for September, or do we want to take a different direction?" So that would be my recommendation at this point is that we go ahead and close the public hearing and then we will continue to work informally with all the parties.

Chairman Waldeck - Two quick questions. Is this – are there any other mercury TMDL's anywhere?

Mr. Wolfe - That have been adopted?

Dr. Mumley - Yes. There is – well, in California, the Central Valley Regional Water Quality Control Board has adopted one for Clear Lake. They have screaming levels of mercury in Clear Lake and they also have a mining legacy. So that is the only one in California that I am aware of. There is Savannah River in Georgia is one that – either Georgia or Region IV of U.S. EPA did that one, and that is a case where I believe there is a single mine and that TMDL is all about cleaning up that one mine, so it is much more simpler.

Closing Presentation (continued)

Chairman Waldeck - So there is not a huge body of – speaking of EPA Region IV, I would like to welcome our Director of EPA Region IX, Wayne Nastri, thank you for being here, and thank you for the segue. So even though it has been done in other places, we can glean a little bit of information, but it is apples and oranges?

Dr. Mumley - That is one way to look at it, yeah. Eventually, considering – we are talking about an estuary, we are talking about multiple types of discharges that we are dealing with that –

Chairman Waldeck - Those are much simpler ones.

Dr. Mumley - Yeah –

Mr. Wolfe - Much more focused.

Chairman Waldeck - Do any of our board members have anymore comments? Any old business or new business?

Mr. Wolfe - Well, I would say at this point, I would recommend that we close the public hearing at this point and then we move forward and keep the Board apprized.

Chairman Waldeck - A motion?

(moved/second)

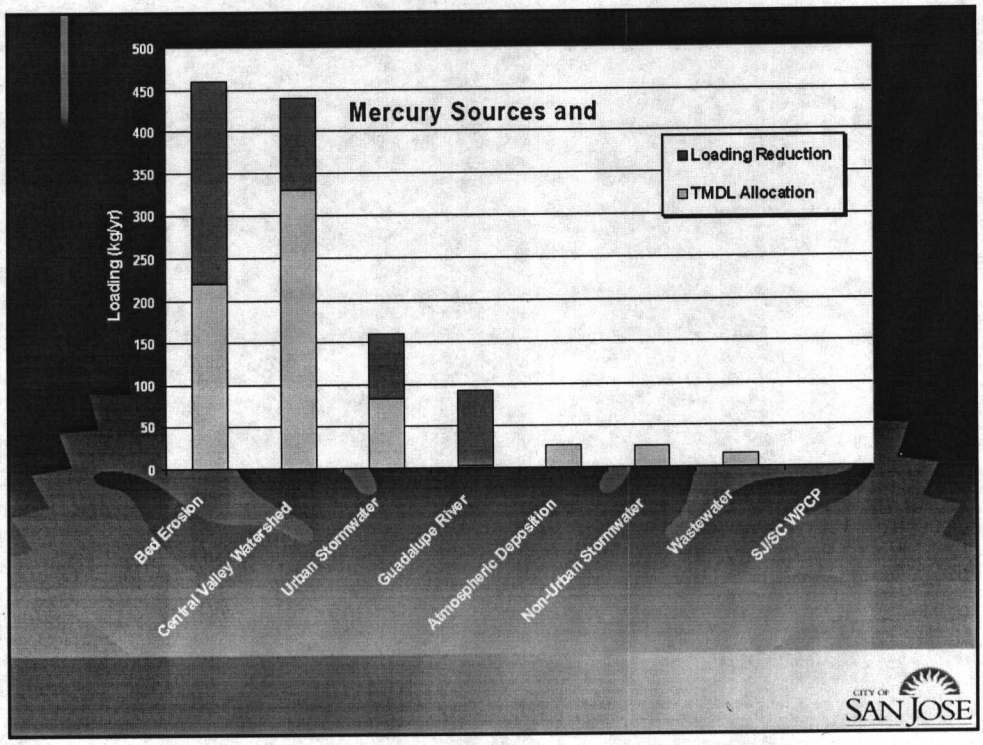
Chairman Waldeck - Any further discussion on closing the – all in favor? Opposed?

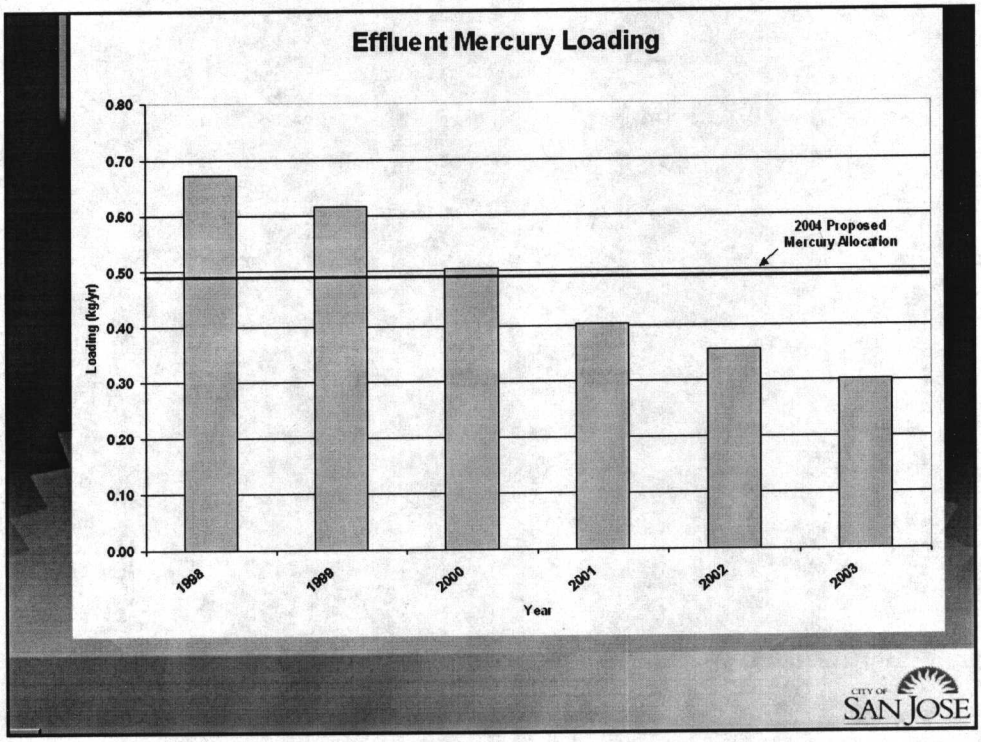
Mercury Basin Plan Workshop
June 16, 2004

Testimony

Carl Mosher

CITY OF SAN JOSE


Mercury Sources and
Loading Reduction
TMDL Allocation
Loading (kg/yr)
500
450
400
350
300
250
200
150
100
50
0
Bed Erosion
Central Valley Watershed
Urban Stormwater
Guadalupe River
Atmospheric Deposition
Non-Urban Stormwater
Wastewater
SJ/SC WPCP
CITY OF SAN JOSE


Effluent Mercury Loading
Loading (kg/yr)
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
2004 Proposed
Mercury Allocation
1998
1999
2000
2001
2002
2003
Year
CITY OF SAN JOSE

Santa Clara Valley Urban Runoff Pollution Prevention Program's Comments on Mercury TMDL for San Francisco Bay

presented by

Robert L. Falk
Morrison & Foerster LLP
June 16, 2004

Observations

- Development of this TMDL is an important, enormous, and challenging effort – this is definitely not easy stuff for anyone involved !
- SCVURPPP directly and through BASMAA has worked collaboratively with the Regional Board's staff on Hg issues for 5+ years
- SCVURPPP has also actively participated on Hg issues and TMDL development via the Mercury Watershed Council and Clean Estuary Partnership
- The SCVWD is leading development of a related Hg TMDL for the Guadalupe River Watershed

Why More Work is Needed on this TMDL

- It's not based on the *most current* science
- It fails to take a *targeted approach*
- It doesn't account for important policies *already in* the Basin Plan
- It will disproportionately burden *local governments*
- Despite the efforts to be required, particularly in the South Bay, it will *not* yield the desired results

Scientific Problems in this TMDL

- Failure to distinguish between "*old*" and "*new*" (more likely to bioaccumulate) Hg
- Mercury levels in sediment *do not correspond* to Hg levels in fish – result is a misguided focus on regulating a lot of dirt instead of targeting *methylmercury* formation
- Erosion of mercury in the bed of the Bay has been underestimated – the desired mercury levels will be achieved in *1/2 the time* projected even w/o further action

Practical Problems with the TMDL

- The current focus on sediment and urban runoff doesn't make sense:
  - Potential to reduce mercury mass entering the Bay in sediment associated with urban runoff is vastly overestimated – *75% is already in the banks and beds of surface waters*
  - A significant portion of mercury in urban runoff is *uncontrollable* –it gets there from coal fired power plants in Asia
  - Hg elimination/recycling/street sweeping/ new and redevelopment (C.3) programs can realistically only address a small % of the load; large scale stormwater detention and treatment facilities are not feasible

Some key legal problems

- TMDL/Basin Plan Amendment takes on more than required (per the 303(d) listing)
- Basin Plan's policies for the South Bay have been ignored via the 1-box model
  - The South Bay is *in compliance* with the numerical WQ standard/objective for Hg that applies to the use addressed by the 303(d) listing
- Implementation Plan doesn't expressly recognize the *"MEP" standard* for MS4's
- The analysis of the impacts and burdens this regulatory program will place on local governments for the next 20 years is insufficient

Suggested Next Steps

- **R**efocus on a two-phase collaborative approach to the TMDL, including by further assessing the role *methylmercury* may play in a regulatory scheme
- **E**valuate how the TMDL and its allocations can change based on altered technical assumptions, especially with regard to using revised estimates for bed erosion and urban runoff loading
- **D**eal w/ the unique circumstances of the South Bay and municipal stormwater *expressly* as part of Implementation Plan and separate the latter from approval/EPA review of the TMDL itself
- **O**bserve through a more rigorous impact and cost analysis what you are really asking local governments to address for the next 20 years