STATE OF CALIFORNIA

REGIONAL WATER QUALITY CONTROL BOARD

SAN DIEGO REGION

WEDNESDAY, DECEMBER 12, 2012

WATER QUALITY CONTROL BOARD

BOARD MEETING ROOM

9174 SKY PARK COURT

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MR. STRAWN: At this time, we'll begin Item No. 11. This is a continued public workshop that we began in our November meeting. It concerns tentative order R9-2013-0001. The draft stormwater permit for the entire San Diego region. This workshop is -- is, as I said, continued from November 13 and I want to remind everyone a little bit about the procedures for this matter. This is not a public hearing and the board will not be taking any action today.

The November workshop, the board heard presentations from staff and everyone asking to speak. Emphasize everyone. After a long day, the board decided to continue the workshop to today's meeting. But before adjourning, we posed some questions of staff to which we hope to get responses today. The questions were summarized and made available to the public. The questions are broken into three primary categories. As Mr. Gibson mentioned, hydromodification, cost and total maximum daily load TMDLs.

In the notice for this workshop, I clarified that the board is also seeking responses from co-permittees specifically on some of the questions concerning cost issues, as they may be in

a better position to answer some of those questions. The primary purpose of today's workshop is to receive these responses and in the interest of efficiency and productive use of everyone's time, the board does not want a repetition of the presentations made in November.

For purposes of today's workshop, we will start with presentations from staff, following each of the categories of questions. After staff responds to questions in each particular category, it may be appropriate at that time to invite other speakers on these topics and to invite board discussion before we move on to the next category. And, again, I emphasize board discussion. Our purpose here is to really be able to dig into this, so there's going to be a certain informality and we'll -- we'll try to keep to a schedule. And I just want to make sure we don't spend a lot of regurgitating what we did in November, but in fact, emphasize more open discussion.

With that in mind, let's begin with the staff's presentation.

MS. ARIAS: Good morning, Chairman Strawn. Members of the board, my name is Christina Arias, water resource control engineer. And just

as you mentioned, Mr. Strawn, this item is about continuing the public workshop that we began at last board meeting on November 13th, 2012.

At that meeting, staff gave an overview of tentative order R9-2013-0001 also known as the regional MS4 permit. So when we concluded our presentation last month, you also heard from many stakeholders on a variety of issues. As you mentioned, more or less those issues coalesced into hydromodification management, total maximum daily loads and the cost associated with stormwater management programs.

So at the end of the day, the board members directed us staff to address some of your specific questions and those questions are included as supporting document 1 in your agenda packet. So for this morning, I will be addressing your questions on hydromodification management. Wayne Chu, who is our project lead, will be addressing your questions on the bacteria beaches increased total maximum daily loads as well as some other items that you had questions on. And Lori Walsh will finish up with addressing your concerns about cost associated with stormwater programs. So unless you have any questions about our

proceedings, I will just dive into hydromodification.

MR. STRAWN: Go ahead.

MS. ARIAS: So you recall last month when I introduced the topic of hydromodification management, I mentioned that this is a relatively newer area in the world of stormwater permitting and the world of stormwater management. Within the last ten years or so, this has become a hot topic as reflected in the more recent stormwater permits. And the -- the reason is because the effects of hydromodification are really far reaching, and all the inputs of the confounding factors that are involved in hydromodification effects are really -- are really varied, but there are a couple of things that we're very sure about.

And the placement of impervious surface, mostly concrete and asphalt within our water sheds, as well as encapsulating healthy sediment beneath these surfaces has led to this condition where we have increased stormwater flow volumes and stormwater flow rates, such that we're left with this condition that the -- the receiving waters have trouble attenuating those increased flow rates and durations. And so these have

detrimental effects to our receiving streams, and I'm showing you a couple of pictures of Carroll Canyon Creek. These -- these are different chain segments more or less located in the middle of the Penasquitos hydrologic unit located both upstream and downstream of developed areas.

The point I wanted to make by showing you these pictures is that the -- the channel geometry here is very striking; right? So the -- the creek banks have been eroded away and naturally has taken away some natural healthy habitat with it. And we have altered the stream's ability to naturally attain pollutants.

And finally, it's not just about our beneficial uses and water quality. There's infrastructure impacts, too. If you notice on the lower picture, there's a telephone pole there and it's probably only a matter of time before that telephone pole falls into the creek. And as you can imagine, this is -- this is what we see the municipality are spending a lot of money repairing infrastructure damaged roads, utility lines, et cetera because of hydromodification.

So the current state of affairs is that right now, San Diego County has a Hydromodification

Management Plan that was adopted by this board in July of 2010 and South Orange County and Riverside Counties are currently developing their hydromodification management plans. In the tentative order, we follow through with requirements and these requirements state that structural BMPs must be implemented to manage flows, priority development causes such that post project flow rates and durations do not exceed predevelopment flow rates and durations for the range of flows that are being to cause erosion.

And I notice that I did say "predevelopment" and I will talk about that in a minute. One thing that the hydromodification requirements emphasize and is really the whole tentative order emphasizes is a watershed approach, and we talked about this in great detail last month. I'm showing you picture, a satellite photo of Penasquitos hydrologic unit because I think it's helpful to really -- to really visualize what I'm talking about here.

So Carroll Canyon Creek runs along the -- more or less this area here. And like I said, the photos that I showed you -- let's see -- one of them was downstream of the quarry. It's hard to

see this magnitude, but somewhere along there. But I do want you to see within this watershed, we have lots of things going on. There's industrial commercial land uses, there's construction going on over here in Carmel Valley. There's the -- some rock quarries, and there's really a lot of open space.

And to me, it's very striking that for -- when you look at land uses, the -- the developed areas are a relatively small percentage of the entire watershed, and yet the effects we see from these -- from these -- from these developed areas are very profound. You already know that many of our surface waters are impaired for several different constituents, and a lot of the reason is because of stormwater, so in -- if we're going to get serious about looking for solutions and improving water quality and beneficial uses, we need to be creative in how -- how we try to -- how we form our strategies and the risks -- not the risks, the strategies that we are willing to implement, and -- and like I said, try new things from what we've been trying the past 20 years. Now, our emphasis on watershed planning is supported by the latest science. In April 2012,

the Southern California coastal Water Research Project issued a report in conjunction with several university partners, and this report is entitled "Hydromodification Assessment and Management in California." And this report states that an effective hydromodification management program will likely include combination of on-site measures such as low-impact development techniques and flow control basins in stream measures, such as stream habitat restorations, flood plain and reparative zone actions and off-site measures. Off-site measures may include compensatory mitigation at upstream locations that are designed to help restore and manage flow and sediment yield in the watershed.

So in the words of the report author in a conference call just a couple of weeks ago, they said the question is not if we're going to do hydromodification management on site, it's where and how within the watershed. So we think that in order to make the improvements that we want to see, that the tentative order contains two important elements that we think will really get to the root cause of hydromodification.

The first one is the elimination of the

previously exempt project, and the second one is the use of predevelopment conditions for each development site. So Mr. Anderson, you had asked the question that -- what happened to the exemption and why did we remove them. So the San Diego County Hydromodification Management Plan or HMP has some exemptions included. The exemptions are such that if your project discharging to concrete line channel, the lines all the way of point of discharge to the ocean, that you're exempt from doing any sort of controls.

And there's also some other exemptions. For example, there's one that we call the Urban Infill Project that -- that is there for when a project is built in a highly urbanite setting. Their computer model link -- when I say "their," I mean -- their computer model link shows that for these kinds of projects, even if we do hydromodification BMPs on site, they really -- its impact is negligible and pretty much a waste of money. So we understand that argument. We agree with the co-permittees and they have convinced us that it's -- it's not a well -- good use of funds to put on controls on these types of sites.

So let me be clear. In the tentative

order, we're not proposing that all of these sites implement hydromodification management BMPs. That's not what we're saying. What we are saying is that instead of doing the -- those types of controls on site, that in exchange, we do -- we spend that money on a variety of different types of projects in a different part of watershed that makes more sense where we can actually see a positive outcome. So that's why those exemptions were removed.

MR. ANDERSON: So that would trigger the -- then if you're discharged into the concrete channel.

MS. ARIAS: Yes, that's the alternative compliance option and next I'm going to talk about that, too.

Next, I'm going to talk about predevelopment hydrology and last month, Mr. Destache asked if we should be using the predevelopment hydrology as a standard or the preproject hydrology. So let me just first explain what I mean by those two terms. Predevelopment hydrology. If we go -- if it's a new development -- and I'm using a nice photo here in the San Diego River watershed. Let's just

pretend that I want to come and put a building here, but both the predevelopment and preproject hydrology are one and the same. And I know what it is. I can go to the site and study the soil type and the vegetative cover and understand the hydrological commute, the natural commission.

Now, let's look at the predevelopment site. Now, the predevelopment site and the preprojective sites are drastically different things. So we don't know exactly know what the predevelopment hydrology is here, but we do know that the preproject site is the hydrology associated with impervious surface. So recall that the stated objective of the Clean Water Act is to restore and maintain the chemical, physical and biological integrity of the nation's waters.

So the question really becomes, do we really want to perpetuate this condition? Do we really want to continue having these flow regimes that we already know are so destructive downstream. Let's instead take this opportunity and try and return the watershed back to a more natural state and give the -- give the downstream waters a chance to recuperate and really work towards a healthy sustainable watershed.

And finally, I do want to point out that this concept of predevelopment hydrology is not something new. We've already had this discussion before. In fact, the South Orange County and Riverside County permits today have this requirement in there. San Diego County is the only one that doesn't have -- have this requirement in their current permit, but I will also say that in -- when their HMP was under development, we made a comment letter to them before the HMP was finished, indicating to them that this requirement was going to be coming in the future. So this is no surprise for them.

Mr. Strawn, you had asked how do we document predevelopment hydrology. So let me give an example of how I foresee this working out. This is an aerial photograph of 9174 Sky Park Court. Now, let's say that I want to redevelop this site, and I don't want -- I don't know what the predevelopment hydrology is by looking at this photo. I just see a lot of impervious surface. The only I know is there a lot of -- there's -- there's the rooftops and the parking lots, and together those during a storm event are going to collect all those pollutants and transport it very

quickly to the nearest storm drain.

But looking at this photo, I don't know anything about the soil underneath my feet. So what I'm proposing is let's zoom out a little bit. So here we go. Here's 9174 Sky Park Court right here. So then south of us we have the airport. To the east of us we have a little bit of open space with Murphy Canyon Creek. So I may not know what the soil type is right here, but I can kind of get an idea by looking at the surrounding area. So I can look wherever there is an opportunity to get access to open space and study the soil type and the vegetative cover and have a really good estimation of what the natural hydrology is.

And it may not perfect. The precision may not be exact, but it will definitely give me a better scenario than if I were to use the concrete asphalt as -- as the predevelopment condition. So another -- another method I could use is to look at a free website service offered by the natural conservation -- Natural Resources Conservation Service. All you have to do is punch in latitude and longitude and it gives you a lot of information about the site.

In this case, I looked up the

properties about the soil type and I'm finding the information that I need. Hydrologic Group D. So you see, Mr. Strawn, it's not about going back a 100 years or 500 years or anything like that. We're not looking for some in-depth history project. All we want to do is use a suitable substitute.

Mr. Destache had made a comment that -- suggesting that we are proposing that the San Diego County HMPs, that we throw it down the drain. Now let me explain to you why that's not the case. This is a flow chart from the San Diego HMP's applicability matrix. And I know the print isn't easy to read, but that's not the point. The point is that each prior development project starts at the top of the matrix and you work your way down and you end up in one of two locations.

If you end up on the bottom right, then you're required to do hydromodification BMPs on site. If end up on the left side of the matrix, then you're exempt from doing any sort of BMPs. What we're proposing is taking this -- this area, this end point and changing it to a requirement that this project does some sort of alternative compliance off site. So we're definitely not

suggesting that this plan get thrown down the drain. All the modeling that was involved to generate this graph is still intact. All the research they did is still applicable.

Like I said, all we're doing is -- is proposing that each site must now do some sort of alternative compliance off site, and this would apply to road projects, too, because Mr. Destache had asked us how road projects would fit in -- would fit into this category also. Where if it's feasible, road project would be doing some sort of alternative compliance.

So what kinds of options am I talking about? The way the tentative order is written, there's a variety of options that the prior -- priority development project could take. First off, there is off site BMPs, retrofit fit projects, stream or habitat rehabilitation projects, and also if the governing municipality has it set up, some sort of in lieu fee would also work.

So where would be suitable locations for these types of projects? Mr. Morales, you had asked -- or you had brought up a concern that low-income neighborhoods might be a target for these type of alternative plan projects. So the

way the tentative order is written, the requirements are that the alternative compliance project would take place in the same hydrologic unit as where the impact occurs or where the project is being built. And preferably within the same hydrologic subarea, so it's as close to the source as possible. But in any event, the real answer is that these projects should be placed wherever there is the most beneficial impact for water quality.

And the way this -- this will fit nicely with the other sections of the tentative order. For example, as we discussed last month, the water -- within the water quality improvement plan, the co-permittees will de identifying strategy and they will be identifying areas where it might be useful to implement some sort of be rehabilitation or restoration project or retrofit project. So it all sort of ties together.

Lastly, I would like to conclude by showing a real life example of how we envision this -- all of this working out. And the City of San Diego was kind enough to send me photos of one of their retrofit projects that's located at the corner of 43rd and Logan Street, which is a

lower-income neighborhood within the City of San Diego. On one side, they have a bioretention basin, and on the other side of street there's curbside filtration cells containing media beneath these decorative pavers, and the City has told me that there have been plenty of design challenges with implementing these PMPs, but nonetheless, we think there's -- this has really great potential. Or this concept has really great potential.

This is the type of opportunities that we're looking for. For one, we're achieving water quality benefit with these treatment devices. Second of all, we think that this is -- this is an -- opportunities to improve the aesthetics in the neighborhood. And finally, it's an opportunity to per the goals of USEPA for environment justice, which states that for all -- for all communities to enjoy the same degree of protection from environment and health hazards.

So that concludes my prepared remarks for you today. I would be happy to answer any questions or we can move on to Wayne's presentation if you would like.

MR. ANDERSON: If I could, on the hydromodification. So the difference between

predevelopment and preproject would be the amount of -- of -- in lieu of fee that would be required to meet the goal.

MS. ARIAS: Well, the in lieu fee structure is not something that is -- the structure has not been set up yet, but that is something that all of us in the co-permittees are going to need to be thinking about, depending -- I'm sure it would be some sort of analysis depending on the expected impacts from the site and what does that equate to. And then so if it turned out to be a fee, then how much money they would owe. So it would probably depend on the impact.

MR. ANDERSON: My question for Catherine would be if -- if we are -- she had the picture of the -- of the auto sale -- car sale lot. If you are redeveloping that site, is -- there is sufficient nexus to require pre -- predevelopment or do -- or are we constrained?

MS. ARIAS: I don't know the answer to that question. I will find the answer out for you, but that's not something I'm -- I'm familiar with.

MR. ANDERSON: I think I only ask that because one of the -- somebody had raised that a potential problem.

MS. HAGAN: Could I interject?

MR. ANDERSON: Please.

MS. HAGAN: I really don't see it as a legal question in my opinion. I think it's a technical question. It's just done -- it's setting the bar as to -- as to what the design standard should be.

MR. ANDERSON: That's question.

MS. HAGAN: Right.

MR. ANDERSON: And the bar needs to be legal.

MR. MORALES: Just a clarification and then a quick question. So as I understand it, then the off-site basins or the in lieu of, am I hearing that the -- the driving factor or the decision as to where they are located is based on where it does the most good for the watershed and the improvement of our water.

MS. HAGAN: Yes.

MR. MORALES: So in an instance -- how would the cost factor into, that because -- there might -- I can envision a circumstance where, you know, where it is -- the most beneficial if you do something in -- in an area like, you know, 43rd and Logan. I could also envision an instance where,

you know, one of our, you know, scientists and engineers tell us, well, the biggest beneficial impact would be if you put it in Rancho Santa Fe. Very different cost approach.

I mean, how do we deal with that? Is that something that is still being flushed out?

MS. HAGAN: Well, actually, all -- you know, all of this -- once the permit -- the tentative order is adopted and it becomes reality and a requirement, then the municipalities will have to set up these alternative compliance strategies or -- and figure how the in lieu fees come together. But in terms of -- in terms of deciding where the -- where the -- the alternative compliance projects will be placed.

Again, I don't think -- that, you know, the status of the neighborhood is part of the equation. It's more technical driving factors, how much impervious services are at -- a lot of these PMPs require space and that's a huge constraint. And it could be that the -- I forgot what neighborhood you mentioned. It could be more that there is more space there so they can implement some sort of project there.

Whereas a place like this, it's a

little -- could be more challenging. However, we think there's more reward if you're able to reach the in-fill areas and start placing the PMPs that looks pretty, too.

MR. MORALES: Then the second one, the -- the website that you said provides some information about soil conditions. Where do they get their data?

MS. HAGAN: Well, let's see. The natural resources conservation service.

MR. MORALES: Presumably they've got information about the soil because they make it available to folks. I always tell my daughter don't believe everything on the Internet.

MS. HAGAN: Right. My understanding, and I think most of the people in the room would agree with me, that that's the -- that's the go-to source for this type of information. They accumulate this data. I think it's constantly being updated with -- with any new information that is available. And, again, you know, the idea that we have here is that -- is that each site gets a rough idea of what the soil type is, even if it's not perfect.

MR. MORALES: Okay.

MR. STRAWN: Segueing from Mr. Morales's

comment and back to mine. You may want to stay there. I think this is going -- go beyond your input. My concern, I think, is the subjectivity of some of the answers that you provided to us this morning. In other words, we're going to assume that everyone making these decisions and working on this are honest, forthright and cooperative. And although we certainly have seen an awful lot of that from this staff and this whole group over the two years I've been here, it's not necessarily the case.

So using my concern of the hydrology modification, predevelopment is a -- certainly an admirable standard. My question is, how practical is it in terms of, you know, you described the process as you envision it going down, but what if somebody wasn't as properly motivated as you are? And where I'm coming from basically and where I would like to go with this is, the co-permittees, I believe, have a concern that we could get into an endless litigation pit over some of these questions if it's not solidly defined as to what that preproduction standard is.

And I guess what I would like to do is ask the co-permittees after lunch to address that,

both the -- the Riverside and Orange County that have been living under that terminology and from our San Diego County permittees that are -- are cringing at having to move into that area, what are your concerns? Am I correct in thinking that it -- it's primarily that it could wind of leading to negotiations and then litigation.

And if that's the case, how do we get to that admirable goal without as much open-ended questioning or subjectivity in that? Is there a better way to hammer out that definition or is that done just by precedent? And I think with that -- go ahead.

MS. HAGAN: Sure. I would like to respond a little bit. So -- so in terms of figuring out what the predevelopment condition is, I'm sure you're familiar that there is more -- I think there's -- there's four different soil types: Type A, B, C and D. And Type A soil infiltrates quickly. It's like sandy kind of substrate. And Type D soil is more like a clay, where it doesn't -- doesn't infiltrate very well at all. So the question there begins -- I think that you're asking is, how do I know which soil type to use if it's already developed site, because there's a range.

And so what I'm saying is that the -- the priority development project, they need to do their research to figure out what their best guess is. And I'm saying "guess." And then the municipality within their land development group, it's their job as they go through project approval, you know, they look at design standards, building design standards, safety standards and stormwater standards. So within reviewing their standards, they're going to be looking to see if this development site -- well, they're claiming Type D soils is -- is that acceptable? "Yes" or "No." And then let's say they accept that. Then -- then the project is built.

What I'm trying to say is that even if -- even if they claim Type D soils, clay soils, which don't infiltrate very well, but true reality is more that there -- that the site is actually more like Type C soils. In my mind, it's still better than concrete asphalt. To me, that's the worse condition out there. So we're just trying to move that -- the use of that type of baseline away. We're trying to move away from that to a more natural condition.

Now, when we come around later on and

do our audit, let's say we want to do an audit on their land development project on the municipalities, and we say Municipality A, can you please show us how this new development -- redevelopment area that you approved a year ago under the new hydromodification requirement, can you show me how our process is for approving that project? Then they're going to show me that -- that the -- the original developer gave them such-and-such information and -- and defended their use of Type D soil. And if they can show that they went to NRCS website and it said Type 2 soils, I can't argue that. They did their job by checking the box.

MR. STRAWN: Just real quick. I don't want to dwell on this. The context I was coming from this last month, we were looking at a map, I think, on a different topic altogether. And I believe it was the San Luis Rey River. And if you could clearly look at that picture and see that -- that the whole river had been moved, and there were hundreds of houses built on what had been probably part of the original flood plain.

So that if somebody who were to go in there and do any sort of, let's say, it was an

improvement of, you know, improve a drain, a system along -- or widen a bridge or do something like that, this endless pit I'm talking about is full. You got to move all those houses out of the way and you got to return the river back to its original location. And how do you draw a line between these very pragmatic things you're talking about. And somebody taking completely out of context that you are referring to into a bigger one and saying that's predevelopment, you know, I want it to go clear back to -- to where it was in 1920. I want the river moved back to its original position. And again, I don't think that's too big of a stretch.

We were looking at part of the San Diego River and going through the golf course in Santee, and it's certainly hasn't been in its original position for the last 50 years, but I could see where -- where you could take this and make that -- that claim before you do anything. You have to move the river back, you know, 200 yards to the north. And I'm just -- I think you have given me a really good answer and I appreciate that.

I just want to hear from the -- the co-permittees, Am I off in La La Land here or is

this really part of their concern. And if so, how did we address it in the other counties and how are we going to work with it? I just don't want this to get bogged down in a bunch of questions that are from a -- where the litigators can address better than I can how deeply you can get into a quagmire with some of those questions.

MR. GIBSON: Mr. Chairman, if I could offer just a couple of thoughts and perhaps questions for your consideration. One is, I think it's important to clarify, at least in my mind, that when this Ms. Arias is showing photographs of sites that might be redeveloped, we are talking about redevelopment, not restoration to native habitat or native soil conditions.

We are also talking about a permit to discharge waste, not land use planning decisions. And so in the example you just gave, that's fundamentally a land use planning decision and City Counsel and County Supervisors make educated decisions based on CEQA and other things about flood plain risks and so on.

So when we look at these from new development for significant redevelopment where the hydromodification requirements come into play,

we're looking at the implementation of best management practices to the maximum extent practicable standard being applied here symptomatically at the sites, taking into account a number of technical issues such as the ability of the soil to infiltrate. What BMPs could you employ there?

Tiering off of that, I think it's important to go back to a discussion we had earlier today, which was about potential restoration opportunities in a watershed that would benefit a watershed scale. And I think that the question that Board Member Abarbanel asked earlier about two potential parking lots could be restoration, is a type of question that could be asked by the co-permittees on watershed scale with respect to new development, redevelopment requirement overall; hydromodification in particular.

Are there opportunities for alternative off-site compliance that developers and land use decision-makers can plug and play with. Can we do incrementally best management practices or restoration opportunities in the watershed that would make sense and allow to be one of the vehicles for alternative off-site compliance. I

think that the staff intuitively expected that that's one of the things that could happen as a result of this approach. But I think it's worth pulling out there and making sure that indeed, that is some of the options that are out there which is off-site restoration as well as off-site basins or other compliance measures. So I wanted to offer those points of view for your consideration later on today.

And I also wanted to note for the record that in almost all the instances where Chairman Grant asked a question and Board Member Abarbanel seconded those questions. And so we want to make sure we are addressing the totality of the board's concerns and questions on this matter. And I'm looking forward to the rest of the discussion today.

MR. STRAWN: Thank you for that explanation. And certainly, if the co-permittees have that same perception where that goes, then I don't have a problem with it. I just saw it as being kind of a question. I didn't fully understand and I thought it was important for us to nail down so everybody knows what the definition really is.

Time for a lunch break now and go to closed session. We don't need a break.

MS. ARIAS: Can I ask you to announce the items that we will be discussing or can I announce them for you?

MR. STRAWN: Would you do that, please.

MS. ARIAS: Discussing Items 12A and M and possibly, see if there are any follow-up discussions on this requirement.

MR. STRAWN: We'll reconvene at 1:00 o'clock, please. Promptly at 1 o'clock.

(Luncheon recess was taken from 12:04 P.M. to 1:00 o'clock.)

MR. STRAWN: If we can reopen our open session. And Catherine, I need to mention that we discussed Item 12D in closed session. And with that, I think -- Mr. Gibson, is this a good time for us to talk about having a representative to the Tijuana River recovery.

MR. GIBSON: If you'd like to, we can discuss that now. Grant Destache was one of two co-chairs on that recovery team. With his departure, it would be appropriate for the board to identify informally a contact person they would like to have fulfill that role. I can add them to

our mailing list. The steering committee meets once a month and about once every other month of the recovery team as a whole.

MR. STRAWN: I don't know that I mentioned this to you, but I would like to propose that Tomas be our primary representative to that working group, and I understand from the comments during our closed session that -- maybe I you're going to cringe -- that Sharon would maybe be a backup.

MR. GIBSON: Sharon spoke also in closed session indicating she was also interested in learning more about the Tijuana recovery team. I was going to give her an extensive briefing later this month on the water board as a whole and on that particular -- she was also interested, but I don't know if she was wants to cochair at this point.

MR. STRAWN: Okay. We don't need a motion or anything. We just put -- unless there is any discussion from our board members, I think Tomas, you are willing to do that; right?

MR. MORALES: Yeah. Send the Mexican. Of course I would happy to.

MR. GIBSON: You would be very warmly welcomed, Tomas.

MR. STRAWN: That's going to take some recovery time. I think where we left the workshop was, we had -- we had staff and board comments on the hydromodification topic area, so I would guess the next spot is to see if there are some co-permittees that want to address that particular subject or other. And -- I'm assuming we have a speaker card for anybody that's going to want to speak on that. We are going to run the timer for three minutes on those comments, but you can share that time if you need to. And if so -- if you would identify yourself clearly, so we can pull your card.

MS. SLOAN: San Diego Co-Permittees Land Development Work Group. I have that handout to --

MR. STRAWN: Do you have a red, blue or green card?

MS. SLOAN: It's blue.

MR. STRAWN: We have 29 speaker cards, so we're going to be pushing this timewise and also have a little card shuffle up, trying keep this all in line.

MS. SLOAN: We have a presentation.

MS. ARIAS: Is this a copy of your slides that you're going to be presenting today?

MS. SLOAN: Yes. Good afternoon. My name is Christine Sloan. I am the chair of the Land Development Work Group for the San Diego co-permittees and thank you for the opportunity to respond to the HMP questions.

The San Diego HMP technical advisory committee analyzed the question of the preproject versus the predevelopment and concluded that preproject was the most appropriate condition to use within the HMP. The HMP does include sections of the document that Christina referred to earlier, and we worked with the main author of that document with our technical advisory committee.

The technical advisory committee chose preproject because streams within a previously-developed area have already reached equilibrium before redevelopment occurred -- would occur. In addition, redevelopment is good for water quality because they're already required to increase natural features, such as low-impact development and treatment controls.

The technical advisory committee determined that preproject was appropriate independent of the other regions within the state that also considered and decided to use preproject.

By using preproject, we encourage redevelopment within our region. And in addition, jurisdictions can then require mitigation by having the appropriate nexus to the project impacts, thus being consistent with CEQA.

And considering the nexus, the legal topic of nexus to the project impacts, our attorney will be speaking on this later. So this slide is the table showing the other regions within the state that do support the preproject condition. In addition, the EPA has already set precedent in their Phase 2 regulations by defining that predevelopment refers to runoff that exists on site immediately before the planned development activities occur.

In red is Region 9, which recently started including naturally-incurring. This slide also shows the various exemptions throughout the state that this permit currently omits. The San Diego co-permittees recommends that the previously-adopted resolution be written into this permit. By doing so, we can continue to support hydrology matching to the preproject condition. This upholds our approved HMP exemptions, and it will also allow for us to adapt our HMP based on

scientific data which will be obtained through our HMP monitoring project. Thank you.

This is for another time, so I don't know how to turn this off.

MR. ABARBANEL: So I understand your recommendation. I understand your recommendation. Are there any exceptions that you discussed that you felt were not covered by the preproject identification that might be important to water quality?

MS. SLOAN: Any exceptions to the preproject? Well, if you consider that preproject, if you have a new development on open land -- and this was already discussed -- new development on an open land, using this preproject condition, that equates to the predevelopment naturally-incurring condition. It's simply redevelopment that would be punished by use of this naturally-occurring language in the permit.

MR. ABARBANEL: I can understand the difference between preproject and predevelopment that was made very clear by staff and by you. My question is, did you consider in your deliberations the possibility that the project that one is following might have severely impaired water

quality and needs restoration at some level, back maybe not to predevelopment, but pre -- the bad project.

MS. SLOAN: I'm sorry. The redevelopment is a bad project?

MR. ABARBANEL: No.

MS. SLOAN: The original project?

MR. ABARBANEL: Let's talk about preproject. Something is there.

MS. SLOAN: Okay.

MR. ABARBANEL: If you're now going to do something else. If you only consider going back to the conditions of pre -- your project, maybe the project that's there was a severely bad project and needs to be remediated.

MS. SLOAN: Right.

MR. ABARBANEL: How do we include that without going all the way back to predevelopment?

MS. SLOAN: That's what preproject does. You still have to mitigate for your water quality impacts and you have to incorporate low-impact development, which is mostly the same controls that you used to mitigate for hydromodification in the first place. They do help distribute flow so that you're not increasing peak flow and peak discharge.

So preproject does address those concerns in addition to treatment of the pollution which the site with would generate.

MR. ABARBANEL: You're not stuck. You're not necessarily stuck with all the bad things.

MS. SLOAN: No.

MR. ABARBANEL: Of the bad project?

MS. SLOAN: Based on requirements today, you would have an improvement to the water quality within the region, even if you had today's requirements with redevelopment, you would be improving. But yes, this preproject condition does improve water quality and address.

MR. ABARBANEL: Thank you for that clarification.

MR. FOWLER: Good afternoon. I submitted a card. My name is Brad Fowler. I'm the public works director and professional engineering with the City of Dana Point. Happy holidays.

First, I would like to say it's been a pleasure working with your staff and with the Board on this permit. I'm -- I really have enjoyed the discussion. It's been a great environment in which to work. My single point here is to ask you to please reinstate the concrete and hardened channel

exemption. I -- my public works staff and I are the face of the regional permit with our constituents. We are the ones that meet with the public on a daily basis to explain and implement the MPDS permit that you all promulgate.

Imagine my staff having to explain to a homeowner, a business owner, or a developer that they have to contain erosion in a concrete storm drain leading to a hardened channel where no erosion, loss of sediment or other impacts occur, or as Christina has suggested, or pay an equivalent fee.

Furthermore, our applicants and residents understand and support control of pathogens, toxins and heavy metals, but when it comes to controlling sediment, they just rank that as the same pollutant of significant concern. And they point out that our beach managers are asking for sediment refurbishment to boot. I -- I think charging a fee, as Christina suggests, will actually be viewed as extortion by our customers.

And where is the nexus? It appears to be a mitigation fee for something that causes no impact, and it would be unbelievably subjective to evaluate a possible impact and come up with a

charge. How would you estimate a price on the incremental reduction of erosion and water quality improvements for a reduction in turbidity to effect the benefits of hydromodification? And where does the money go and for what purpose does it go?

I would submit it is really quite impracticable. While restoration applies to the Clean Water Act, we're talking here about the MS4. So while I understand and conceptually appreciate the reason behind requiring a hydromodification fee for a hardened or concrete channel removal. And as a revenue generator, we certainly need the funding. I respectfully request that unless there is an active plan to remove a hardened channel, that the concrete and the hardened channel exemption be included in this permit. Thank you.

MR. ANDERSON: Can I ask a quick question?

MR. FOWLER: Certainly.

MR. ANDERSON: The current water permit that has the predevelopment standard with the hardened channel exemption?

MR. FOWLER: Unfortunately, we are in the process of submitting the standard and the current permit for review and we haven't gotten the final response yet. I will tell you that both San Diego

County and us up in South Orange County have spent a lot of time putting together that hydromodification implementation plan, and we would like to use those and continue to follow a plan that we've spent an awful lot of time and money on developing. Thank you.

MS. HASENIN: Can I ask just a question. Are you taking the speakers' slips in order? Do we just get up and speak on the issue?

MR. STRAWN: Unfortunately -- unfortunately, the speaker cards don't describe which of the three topic areas you want to discuss. And since we thought it would make the most sense to go by topical area, we're sort of hoping you folks will come up in order by that topic. And we'll pull the card out and then when the pile gets a little bit smaller, we'll go back and see if we missed anyone.

Is that workable for everybody?

MS. HASENIN: Sounds good. Can I go next, then?

MR. STRAWN: You might pick on a follow-on to the hot seat so we can move this along.

MS. HASENIN: Good afternoon. My name is Sumer Hasenin. I did submit a slip, I believe it's

a green one. I am with the City of San Diego, but I am also part of the San Diego County Corporate Land Development Group, and would like to speak a little bit on the HMP. I just want to go back to the question that was asked about restoration for redevelopment project. So I think there is an opportunity under the tentative order language to actually address situations like this where the previous -- the existing development has very negative impacts to the watershed or the water body.

There is a tentative order requirements or provisions under the existing development or management of existing development and also under alternative compliance to consider these opportunities for restoration and rehabilitation. And these, we think, would be best addressed in the water quality improvement plans by looking at the watersheds as a whole and identifying these opportunities.

And we think this would be a lot more appropriate to achieve that goal by doing it this way on a watershed base level rather than imposing the HMP requirements on project-by-project level where the impacts may not even be caused by that

project. So this goes back to, I believe it was Mr. Strawn that asked the question before lunchtime, can we legally basically make a project comply with these requirements if the project is not causing an impact. So I an engineer. I won't even attempt to talk about the legal issue, but even in terms of toxicality of applying the permit in terms of consistent equitable standards for all development projects, we really think we don't have a justification to require projects to implement hydromodification controls on the site or even pay into an -- in lieu of fund for impacts that did not cause it.

So if the project is less than 5,000 square foot, for example, it does not have the potential to cause erosion to a concrete line channel, then how can we vision a plan review staff that issue development permits, how can we justify for them that they are required to pay into a fund?

And then I would also like to point out on one of the slides that Ms. Arias showed on the decision matrix from the San Diego Hydromodification Plan, that basically the only change that would be required is to change the very last box on the left-hand side, basically as the

project is exempt, then we would make them pay into the fund.

I would like to point out that this matrix -- this is very much oversimplified. This matrix was developed and we reached that conclusion based on the that development project does not have the potential to cause erosion to the downstream channel, so that's why they reached the box on the left-hand side.

So by just scratching and saying okay, you don't have an impact but you still have to pay into a fee, we don't see that justification being established. Thank you.

MR. BURTON: Thank you so much. I'm Richard Burton, program manager for the Orange County Stillwater Program. I do have a prepared response to all of the questions that were posed, so if I could, but on the -- on the issue of hydromodification specifically, one of the key tenants of our input through the focus meetings and through the last board workshop, that is the goal of the Clean Water Act in its entirety is restoration.

All of the regulatory tools and all the regulatory programs within the Clean Water Act are

intended collectively to achieve the goal of restoration. But we are here today as permitted municipal discharges of stormwater are dealing very specifically with Section 402B. We have an obligation to eliminate nonstillwater discharges and controlled pooling discharges from the MEP, and that's our obligation.

Second, we -- I'm sure you will hear from all the discharges about the importance of the engineered channel exemption. If a site draining to an engineered channel has no hydrologic hydrographic impact, how can you ask the project proponent to mitigate for all -- for what? No impact. The first speaker neatly summed up or made the point with her presentation, the board recently adopted municipal stormwater permits in California, North Orange County, Ventura, Los Angeles, San Bernardino, Riverside have the engineered exception in them.

With regard to what we have been doing in North Orange County particularly over the last 12 months, we have been implementing a new program, retention-based program or land development that has hydromodification management obligations in it, but whether a site -- whether a proponent must

consider hydromodification or not is based on reference to a hydromodification susceptibility map. You look at your project site, we have a series of maps that cover North Orange County watersheds. If you're draining to a channel segment that has been deemed susceptible to hydromodification, you mitigate the hydromodification.

It has been a noncontroversial program. We are over 12 months into implementation. We did a review workshop with the development community. There were no objections. There were no controversies raised. It is program that is working, but it is working because it makes sense to do hydromodification management where there is a susceptible channel.

I also want to just point out that we also are looking for another exception in a different environmental compliance regime for Green Street and I wouldn't want to lose sight of that.

So in conclusion, the issue of engineered channels and what is required of somebody draining to them is an area where we think we have a fundamental disagreement with your staff, and that's an issue. That's very important to us.

Thank you.

MS. STROUD: Good afternoon. I'm Heather Stroud. I'm a Deputy City Attorney with the City of San Diego, and I'm just going to address the predevelopment nexus legal question that came up briefly. I appreciate that you have asked your legal counsel for opinion on that. It's -- you know, it's a legal issue, but it's a pretty simple legal issue in that you're not allowed to require mitigation beyond what the impacts of the project are.

And there's two Superior Court cases that are directly on point. And also in California we, have the Mitigation Fee Act. So the same rules would apply to any in lieu fee. In other words, the alternative compliance doesn't get you out of the legal problem if the project itself isn't going to have an impact on hydromodification.

And then just to address the question that was asked about whether a better definition could be hammered out for the predevelopment standard, I don't think that that's really going to be possible because it's such a fact-intensive inquiry that's going to be site by site. I think it's a little bit oversimplistic to imply that you

could just look at the soil type and answer that question because it's also based on the vegetation cover and the site topography, among other things.

And the historic conditions of the site really are going to be up for argument. And we don't want to be in a position as municipalities to be arguing with every single developer that comes in the door about what the appropriate predevelopment conditions are.

So with that, we would be happy to meet with your counsel if that would be helpful. I would suggest that you follow up with her on that question. Thank you.

MR. STRAWN: If there are any questions from the Board. And there was a green card here from Karen Cohen, that wanted to follow Mr. Boone. Do you want to step up?

MR. BOONE: Good afternoon. That was bacteria, not on hydro.

MR. STRAWN: We'll hold that, then.

MR. CALLACOTT: Good afternoon. My name is Bob Callacott, and I'm here today on behalf of the Riverside County Transportation Department. And I would like to address question number 5 under hydromodification, which is the co-permittees

commented that road projects have unique space limitations and may not be able to meet retention and HMP requirements. Should road projects be treated differently and could -- requirements of the new Cal Trans Water Permit be used to provide more options. And this was a question raised by Grant Destache. The transportation department does not believe that the Cal Trans approach would be appropriate. However, during the November 13th workshop, Patti Romo, the deputy director of the Riverside County Transportation Department, asked the Regional Board to direct staff to consider the approach taken in the 2010 MS4 permits for the Santa Ana and Santa Margarita regions of Riverside County and the 2012 MS4 permit for Los Angeles County.

The 2010 MS4 permits for the Santa Ana and the Santa Margarita river regions of Riverside County allowed for the MS4 permittees to develop planning and design guidance for the incorporation of postdevelopment or permanent DMPs into transportation improvement projects in lieu of projects -- specific water quality management plans or projects specific storm -- standards and storm water mitigation plans.

Riverside County transportation project guidance addresses improvements to streets, roads, highways and freeways and it incorporates the principles contained in the USEPA guidance managing what weather with green infrastructure, Green Streets and addresses hydrologic conditions of concern and criteria. It is protective of water quality.

The transportation project guidance was reviewed and approved by the executive officer of the Santa Ana Regional Board in October. For the Santa Margarita river region, the transportation project guidance is part of the standard stormwater mitigation plans that were subject to a 30-day public review and comment period. This transportation project guidance was submitted to your executive officers in July, and to date, no comments have been received from your staff.

The 2012 MS4 permit for Los Angeles County requires street and road construction projects of 10,000 square feet or more of impervious surface area to: One, follow the USEPA guidance regarding managing wet weather with green infrastructure, Green Streets, to the maximum extent practicable; And two, to address hydromodification control measures.

However, projects that are replacement, maintenance or repair of permittees existing transportation network may be exempted from the hydromodification control measures.

Further, the Los Angeles MS4 permit does not impose post-construction or permanent BMPs on routine maintenance activities, such as conducted to maintain original line and grade. Hydrologic capacity, original purpose of facility or emergency redevelopment activities required to protect public health and safety including impervious and repaving such as reconstruction of parking lots and roadways, which does not disturb additional area and maintains the original line, grade and alignment.

The Riverside County permittees have several concerns with utilization of Cal Trans MS4 permit as a source, quote, unquote, to be used to provide more options. I guess I'm running over time.

The Santa Ana and Santa Margarita permits have dedicated substantial time and resources to developing this transportation project guidance, and this is intended to provide a consistent structure that -- procedure during the

planning and design of this transportation improvement project.

The Riverside County co-permittees would like to be afforded the opportunity to implement this transportation project guidance which they have invested a lot of time and effort into with the confounding certainty that it will be irrelevant in only a couple of years. We would like to request the Regional Board direct its staff to: One, draft the MS4 permit provisions that treats transportation improvement projects differently than other types of land development or redevelopment projects; and two, specifically consider the transportation project guidance submitted to your executive officer in July as a model preferable on the Cal Trans MS4 permit. Thank you.

MR. STRAWN: How many more speakers do we have on hydromodification.

MS. ARIAS: Before we go on, I wanted to -- we got a handout from Orange County has written responses to all of the questions and all of the categories. It does include also, you know, the cost information that you were looking for. As far as handouts coming in, you know, I think they may

be helpful to you. You may not have much of an opportunity to actually read them.

If -- if you would like, I can give them to you and during the break, take a little bit longer break and actually have an opportunity to review them and your staff could do the same.

But I'm not sure how many more sets of handouts we're going to get. If you would like, I'll go ahead and bring them around.

MR. STRAWN: Do we have lots more handouts or are we -- and then I assume since that talk about the cost, we'll come back to that issue and someone will speak to it later, I guess, on topic.

I enforce here the three minutes.

MR. CRATENBARREL: I'm Donald Cratenbarrel. It's been 32 years since I came before the Board. I remember Dave Parker. I remember from those days.

What I'm reading today is a little different. It's a little more general than specific questions. And having to do with Sunset Cliffs and natural park which is slipping into the ocean. Number five, disappearing part, all of those things. And as you will see when you get this, there's two things. One is a letter that we

sent to the Coastal Commission and it's been endorsed by the planning board. So that will give you an idea of where we're coming from, what our general plans are.

What I would like to specifically deal with right now is the hydromodification. And do we have hydromodification. We have ravines that have been cut. And this is well recognized by the Regional Board. In 1992, they asked the City of San Diego to -- they didn't do a cease and desist or anything like that, but they wrote a letter that said that they would like to have it taken care of before the next rainy season. So here we are, 20 years later, nothing has been done.

The City seems to have any intention of doing anything. There's no money appropriated, and so I know that's a different issue. But we would like to see something done. And one of the things that could be done, if you turn to the back of the handout, there's basically three questions we have. And it has to do with the process.

Hydromodification that I showed evidence of and everyone knows about. Is it regulated by the new stormwater permits? Will that be brought into it? Will the City have to be part

of that? And then where does that fit into the planning process? We got nothing but ambiguous answers, and how will it be determined if the City is complying? These are things that I hear people dealing with because none of the projects the City has proposed so far will stop the ocean -- discharges to the ocean of turbid water, which is in direct violation of OSHA Plan and the Clean Water Act.

So those are the questions we're coming to and if we can just go through the handout I have. The first two pages are the 1992 letter that the Regional Board issued on the City and -- to clean this up before the next rainy season. They talk about the impacts that the discharges are having on the marine environment and land forms, and these are excerpts.

Another point I'd like to make, you see this gravel of rainfall. You can see our rainfall coming. In about every five years, you get a major storm. 2004, 2005 we had a major storm. And it -- it did massive damage to the park. You can see this next picture, woman walking along with her Doberman, it looks like. That erosion feature that moved back about three -- two to three -- about

two months almost undermined the coastal line that rums from Point Loma Wastewater Treatment Plan to Miramar Landfill. That's a picture of my wife.

This cavern originated in just -- in the 2004, 2005 year. Here's our discharges. There are no discharge there are no outfalls there. Water pours over the cliffs as waterfalls. Two of the waterfalls and -- I'm out of -- I'm here, but the danger where these waterfalls go over, they loosen the bedrock. There is a couple sitting there two weeks later, the landfall, so it -- you can see the turbidity. I don't think I need to go point by point any further, and it's not -- it's not controversial.

So my question is if anybody here can give me an answer, is are we -- are these new stormwater reservoirs going to cover -- cover this. And I think the Regional Board's responsibility as the Postal Commission has that much responsibility, but it definitely impacts water quality. If you can help us.

MR. STRAWN: Thank you.

MR. BOWLING: Good afternoon. I'm Dennis Bowling. I'm a principal with Rick Engineering Company. I'm also the chairman for the technical

advisory committee for the Hydromodification Management Plan for San Diego County. And earlier in the presentations, you heard Christine Sloan give a very good overview about how we came up with the exemptions for hydromodification management in that hydromangement plan.

The streams that we show that should be exempt are streams that definitely should be exempt. It's like the Otay River downstream of Otay Lakes where the water source for that river has been severely impacted by the Otay Lakes themselves. They're not the rivers that you saw earlier in the presentations from staff that were severely hydromodified. In streams like that, the controls for hydromodification management make perfect sense and those are also good places for restoration.

But when we look at areas like downstream of Otay Lakes that are discharging into a hardened channel that is not subject to hydromod. Those exemptions should remain. And for those who say that you can't take that concrete channel out and replace it with a more natural channel in the future, are just wrong. An engineer-natural channel could definitely go into the place at any

time of those concrete channels. It would have a different geometry and it would look different, but it would be engineered and not subject to hydromod.

So to take that exemption out -- to keep that exemption as it is today does not preclude any restoration projects that are proposed.

Another thing that staff showed earlier today was that large flow chart that was very hard to read. When we went through a lot of pain in putting that flow chart together to show which projects were and were not subject to hydromodification management. And when you got to the end of it, when it said you weren't subject to hydromod, to say that we're going to replace that exemption with something like you're going to have to look at off-site BMP, or you're going to have to look at a retrofit project, or a rehab project or an additional in lieu fee, really adds a degree of complexity to a project that's difficult for a developer to work with.

When you think about it, you buy a piece of grounds knowing the constraints in that ground and not having to think that you're going to have to do some off-site project somewhere where

you have absolutely no control over the land. So it makes it very, very difficult to work with. We're adding a layer of complexity that's going to make hydromodification management in this county extremely difficult. Thank you.

MR. NABONG: Hello. It's Jim Nabong. I'm a civil engineer with the City of San Diego, and I'm going to try to not duplicate things that have been said as best as possible and just focus on what I think I can offer as a unique perspective. I really appreciate that the questions are being asked about hydromodification and off-site mitigation, and I think these are -- these are really, you know, good discussions to have before we move forward to the date the decision has to be made on this permit.

What I have to offer is I am more of a hands-on implementer. I am involved on, you know, 40 hours a week, I try to implement current permits. And one of the things that I feel proud to have accomplished was the pilot Green Streets Project. The retrofit that Ms. Arias showed on her last slide, so I was the one who made that happen. But I have a lot to share in terms of that hands-on day-to-day implementation of -- of real

practical experience of the challenges and, you know, you could take all the other statements and kind of imagine what that means in terms of doing it, this type of thing jurisdiction-wide watershed-wide.

So first off, that project, that Green Streets Project, it was a pilot project for -- we called it a pilot study and we're willing to take a lot more project risk under that kind of condition versus something that's more of a normal project where, you know, for instance, if we're saying you can't get your development permit unless you build something off site. You know, in this case we were willing to do this on a pilot basis and we're willing to learn from it. Completely failed. It would be an excellent learning experience, and we have had some -- some huge challenges with it. So the way I relate this experience with the -- the Green Streets retrofit feet to the hydromodification requirements, if you take a look at some of these sites and you can just think of the photos that we just saw of this building and its parking lot and that auto business and think about how much impervious surface there is and how much every square footage of that land

is utilized.

So if you were to impose a predevelopment baseline to design your project to function hydrologically, the same as, you know, we're finding you may have to devote 20 percent of your land to be at peace. So -- there's definitely some challenges there. So -- so that basically pushes a lot of project applicants if they were held to that standard to have to find where are they going to do this off-site mitigation, and it was very challenging for us to find a location. If you look at those photos, you saw a lot of open space around the airport, a regulatory requirement to have that. You saw open space in Murphy Canyon. Part of the multiple species conservation plan. As far as you actually really finding places you can use, it's tough. We really lucked out and found this half-acre parcel that was vacant and we were able to use for that.

Based on that, you saw, but it's very rare that you would find that, and that only treats the equivalent impervious area a very small priority development project. And then we have the landscaping strip, which is five feet wide and -- we wouldn't really be able to mitigate for hydromod

for that. We were only able to do a certain level in reduction. And that's all I want on present. Thank you.

MR. O'CONNOR: Good afternoon, board members and staff. My name is Jeff O'Connor. I'm the director of operations for Otay Land Company in Carlsbad. Couple of speakers ago, Dennis Bowling mentioned that the Otay River, we're developing some land downstream, the Otay Dam. The dam was built somewhere in the -- 80, 90 maybe 100 years ago. And since then, the water is discharged downstream or sort of flows downstream. That dam has been reduced by over 80 percent.

What we are trying to do is we're trying to get clean water back into the river. And in order to implement our wetland restoration plan, we need that water in the river. Our plan will not work if we don't get water back into that river. It's been starved for 80 years. The vegetation of that river now shows that it's mostly consist of arundo and timorous. And our plan is to remove that plant wetland species and get that river back to where it should be. Thank you very much.

MR. PADRES: Good afternoon acting chairman and members. My name is Claudio Padres.

I'm from Riverside County Flood Control and Water Conservation District. I didn't speak to you a little bit about this at the last meeting, so I'm going to, like others, not rehash that. But I was going to try to elaborate on one point that I made last week, which is actually a question towards the end of the day probably about the one size fits all. I'll speak more to it when we get to that topic, but this is actually one example, I believe, where this permit does take the one size fits all approach.

But I won't claim that the whole permit is one size fits all, but there are elements that are. And this is one of those because instead of taking a watershed-based approach where you design your mitigation standards to mitigate the actual problems or to address this -- the specific scenario of a watershed, it's saying mitigate to the predevelopment standard everywhere. And in some cases that may be appropriate, but in other cases maybe preproject is the right standard.

In other cases, maybe an exemption is appropriate. And I know San Diego County co-permittees have gone to great lengths to identify areas where that is indeed appropriate and

scientifically defensible. So I guess that's my main point, is that this permit kind of has a disconnect. There's what's lumped into the Jurisdictional Runoff Management Plan, which is this -- at least in the case of hydromod kind of a one size fits all mitigation approach where everyone must mitigate to that predevelopment standard.

Then there's separately, a water quality improvement plan requirement. That water quality improvement requirement is where you get all the stakeholders together. You identify the specific problems that you're experiencing at the watershed and the specific solutions to those problems. But instead of leveraging that and having that process decide and determine what is the best solution and the best mitigation, which may not be the same uniformally in that the whole watershed could be different for different streams in the watershed.

But instead of using that, the requirements are saying same standard everywhere basically. So again, really what my request to the Board would be is to help -- is to really to direct staff to work with us to find a way to better link

those two so we're taking a proper leverage and we're leveraging that Watershed Water Quality Improvement Plan process to identify what the right mitigation for the right streams. And in a way that's scientifically defensible so we can then go to our developers and when they ask why do I have to do that, we don't have to throw our hands up and say well, the permit told us to.

We want to be able to say well, we have looked at these streams and this is really what is needed to protect this or to restore this, and your doing this is actually going to have a tangible benefit. It's not being done simply because it was written down in a permit. I think that's critical to building public support for our programs, and not engendering distrust among our development communities if we're just arbitrarily coming up with standards here. We want to be able to tie it back to specific problems. Thank you.

MR. BARRINGTON: Good afternoon. My name is Brian Barrington, Senior Deputy County Counsel for the County of Orange. Thank you for giving me the opportunity to speak. I just would like very generally to comment regarding the legal issues, the significantly legal issues that are associated

with hydromodification, particularly nexus and subjectivity.

First I wanted to point out that the County does have some objections to its hydromodification requirements in its current permit. Second -- and just to reiterate what was said by Heather Stroud, City Attorney's Office for San Diego on the issue of nexus, there are two US Superior Court cases dealing with development actions and substantial nexus or rough proportionality that is needed. When the County requires some action or predevelopment hydrologic condition or some other compliance option of hydromodification requirement. And we would be required to comply with those cases, and whether it ends up in endless litigation or we exempt someone based on that we believe this is an unconstitutional action, we will have to prove that up later in an audit.

There will be some hiccup in the process. We would encourage the chief counsel's office to examine the court cases on land development actions taking and other sort of general planning and zoning that could apply to this permit. There are also constraints among the

mitigation fee act. It does not always allow us to go back in time and apply fees to past issues. There is also Prop 26 concerns as well that we'll have to address, particularly with respect to in lieu fees.

Third issue, I want to bring the issue of subjectivity. It is -- the hydromodification presentation was -- did present a lot of subjective concerns, particularly having to define redevelopment standards or how you even require certain hydromodification in the first place. You know, Richard Boone from the County of Orange brought up the issues, what our Clean Water Act requirements are under Section 402B. And under the State Administrative Procedure Act, there must be substantial evidence to support some of these hydromodification requirements in the first place.

We believe that some of the evidence doesn't currently support that, that we've provided some arguments and previous workshops, and -- in the January filings, that may that show there -- that there isn't evidence to support that in all cases at all times. So we would just encourage a detailed legal analysis and we would be happy to assist or were meet with you to help that along.

Thank you.

MR. STRAWN: We can't find a card for you, a speaker card.

MR. BARRINGTON: I wrote on it. I wrote -- I'll file a new one with you.

MR. STRAWN: Will you please and make sure everybody has one before we come up.

MR. BARRINGTON: Sorry about that. Thank you.

MS. WITKOWSKI: Hi, I'm Jill Witkowski from San Diego Coastkeeper. I submitted a blue speaker card which actually says that I'd like to speak on the hydromod and two points on the cost questions. And I guess on the lone voice here in support of what the Regional Board has done, there would be others here except Collin Kelly from Orange County, Coastkeeper and Noah Garrison from NRDC decided not to make the long trip down to speak for three minutes. So I'm going to do the best that I can and in the three minutes to speak my peace.

But I do strongly agree with what the regional board staff has done. We need to think about why we're here. We're here dealing with stormwater, which is really expensive because we made poor development decisions in the past because

we paved paradise and put up a parking lot, and now here we go. We have way too much stormwater running off into our streams destroying our habitat, destroying our water quality. And we all agree the way to get back there is to undo those bad decisions that we did; that ultimately retrofitting is going to be the solution of making better land use planning decisions when we go back to revisit portions that we've already developed.

Which is I'm disappointed that the San Diego County co-permittees are saying preproject because preproject is status quo. And there's a saying, if you always do what you've always done, you're going to get what you've always gotten. And if we say preproject is the standard, what we have is the same amount of pollution that we have now. It's the same impact to our beneficial uses.

They actually -- I can't believe I heard that there aren't any impacts to a channel -- a hardened channel -- concrete channel from development because it's concreted. Well, we have already lost that channel. That channel was a stream at some point. That habit that had beneficial uses and it's gone now. And I would

like to point out what we're talking about with this predevelopment versus preproject. What we're talking about is the amount of water that can leave the site. And the actual standard which is on Page 103 of red-lined administrative draft is postproject runoff flow rates must not exceed predevelopment by more than 10 percent.

So we're not even actually asking predevelopment. We're saying we know predevelopment, you get a little bit more. You can have more than that. And this whole concrete -- well, we're -- we're going into a concrete channel, we shouldn't have to pay because it's not our fault. I think the Regional Board staff got a lot of support for including that people who redevelop in areas where they're entering into a concrete channel should pay their fair share because the Orange County co-permittees Riverside co-permittees actually convened a panel hydromodification experts, who basically said when specifically asked should we have an exemption for concrete channel, said no. Well, it's a policy decision but no, because hydromod isn't just scouring. It's all of the benefits, everything that we have now already contributes to it. So everybody should pay in for

the solutions.

And I would also like to mention the alternative compliance, those details haven't been figured out yet. That's going to be done on a watershed basis, and that's where watershed groups get together and say this is what makes sense for our watershed. Everybody who is going to do work here is going to contributes to pollution and we're going to figure that out on a watershed basis. Thank you.

MS. PROCOPIO: Good afternoon, Julie Procopio with the City of Santee. Just wanted to address briefly a couple of items that have come up in the discussion first. Ms. Arias mentioned that she doesn't believe that -- she says we're not going back 100 years. Well, I argue that the naturally-occurring language that's in the permit right now is interpreted that you have to go back more than 100 years. You could have to go back indefinitely.

And I think this is very subjective and certainly right for litigation, given the nexus issues that have been discussed previously. But I wanted to address a few comments that you made, Mr. Strawn, specifically about the admirable goal

of restoring natural watershed conditions. Co-permittees support this goal. We support restoring channels where it's feasible. And you asked well, how do we support it? What do we do in order on to support this goal? Well, the San Diego co-permittees have proposed to evaluate the potential for channel restoration in our water quality improvement plans and require each mitigation only where it will be beneficial. So we don't use it unless we need it.

And so I think that's a good solution. We avoid the one size fits all approach. We ensure that we protect the possibility of future restoration where -- where we see it as a potential. And I think that your goal is to improve water quality. It's not to provide these costly massive stiff storage basins on development sites to mitigate for impacts, HMP impacts, that are simply not there.

So -- and then I wanted to address something briefly that -- that Jill stated. I -- I argue that her argument about the preproject is the status quo. I totally disagree with that. Every redevelopment project has to incorporate extensive LID controls and even the EPA, everyone agrees that

the way we're doing redevelopment nowadays is beneficial to water quality.

HMP asked would be less likely to occur as a result of redevelopment project. So I think that is simply untrue, and some of the statements made about what the HMP panel concluded, I just simply disagree. The HMP panel had a lot of different ideas and certainly requesting -- requiring a project to mitigate for an impact that they didn't create was something they understood may be out of our control.

So I just ask that you keep the San Diego HMP intact. I believe that it gets us closer to our goals, our shared goals. And it also keeps us out of potential lawsuits and keeps us from providing unnecessary mitigation where it's not needed. Thank you.

MR. LEJA: Good afternoon. Thanks for the opportunity to speak. My name is Richard Leja. I'm the president of the San Diego Highway Development Association. I wanted to build on a couple of previous comments, specifically as to how the permit, both current and past or current proposed deals with transportation projects.

Both the current and proposed permit

conditions are focused on land development type projects, and their associated solutions to promote water quality. We feel these are not viable for public roadway projects. In order to ensure the safety of everyone, they must be designed to meet the most stringent criteria to protect us from very real risks of traffic accidents, life and death considerations.

While some local roadways such as residential streets allow for more flexibility and treatment, high-speed roads do not. For example, a solution that can be viable in a parking lot or residential street such as a permeable pavement or pavers don't work for a high-speed road. There are serious safety concerns that don't make them viable.

Also, public roadways are not just about cars. Public roadways are also about utilities. Critical corridors for public utilities that we all use, such as sewer, drinking water, gas, electricity and communications. Although mostly unseen, they are critical to all of our lives. Through this implementation that's being proposed, those things can actually be disturbed because of the need for underground retention.

So what we're proposing, as a previous speaker Bob from Riverside was talking about, is the implementation of transportation, specific criteria that will be practical for roadway projects, similar to, but not the same as, the Cal Trans MS4 Permit. In addition to those, we also request that the two-lane exemption limitation for roadway retrofit projects be removed and that all roadway retrofit projects are allowed to achieve compliance through any of the provisions of the alternative compliance available to the projects.

We further request that the requirement for compliance of any measure be limited to those that can be installed within the right-of-way which is shown on the adopted general plan for the facility being constructed. It's really -- the way the permit's written right now, it talks about two lanes versus four lanes as the exemption. That's -- that's not the critical criteria. The critical criteria is about design. A four-lane road is much more problematic to implement what you're talking about. Therefore, we encourage you to look at the modified MS4 conditions that were submitted in July specific to transportation facility and implement them. Thank you.

MR. STRAWN: What was your name again.

MR. LEJA: Richard Leja. There should be one listed. It should say Eric Orr or Richard Leja from Highway Development Association.

MR. STRAWN: Blue or green? Got it. Thank you.

MS. CHUNN-HEER: Julia Chunn-Heer from Surfrider San Diego. I will speak briefly on hydromodification and some of the cost implications. I would like to start by saying I definitely support staff and staff presentation made this morning as well as my environmental colleague, Jill, who spoke earlier and those who were weren't able to stay all day and had to leave before lunch.

Our organization is very invested in this process. If anything comes of our concerns about how to incorporate more triggers so that more existing developments could be incorporated to change it. And to some of the comments, I'm not going to go over everything that's been stated already. Just try to stick to new information.

Director Morales made some types of questions about BMPs in -- if they were in Logan Heights or in Rancho Santa Fe, and with our

experience with ocean-friendly garden, those BMPs can be made beautiful wherever they are with some beautiful native plants and things of that nature, whether it's in Rancho Santa Fe or Logan Heights, they can definitely be aesthetic improvements.

The comments about moving a river, whatnot, it's about calculating capture. It's about calculating water capture and not necessarily moving rivers or moving houses. While I empathize with many of the speakers you have heard from today, the fact is, you know, some of these changes might be difficult, but if we don't make the changes, nothing is going to change. The definition of insanity is doing the same thing over and over again, expecting the same results. So we need to make some changes if we want to se improvements in the water bodies. Thank you.

MR. STRAWN: You had a question.

MR. ANDERSON: Do the standards that are incorporated in the permit, do they help get the redevelopment projects into a better situation for water quality?

MS. CHUNN-HEER: To this point, we -- the drafts I have seen, yes.

MR. STRAWN: Any other comments on

hydromodification? Just one question. Earlier, all my comments were about preproject versus predevelopment, and then I was reminded on one of the charts that there's a third term called "naturally-occurring." Is that really a third category? That is just a different way of saying predevelopment and no lawyer is going to argue otherwise in court. Okay.

MS. CHUNN-HEER: The EPA does have a different definition for predevelopment, which I had mentioned earlier in the Phase 2 regulation. I can give you the citation if you want.

MS. SLOAN: I have a citation for that.

MR. MORALES: I have a comment for some of the people that would ask if something was legal or not. I give the same response that -- always give me. You can do it with enough time and money.

MS. SKORPANICH: I'm Mary Anne Skorpanich with the County of Orange. And to that last question about naturally-occurring in predevelopment, in many parts of Orange County we have white-spread grazing, for example. And where trees were removed and -- landscape was changed rather significantly as well as the rate of which sediment sheds off the lands.

That had nothing to do with development per se, but wasn't necessarily naturally-occurring, so I think there is a distinction between the two.

MR. STRAWN: Thank you. So I guess I'll leave that as an open question. We should consider which of those two terms are going to be in the report and/or in the permit. Is it all one way or the other now, or -- and I don't need to go into this right here, but I want to leave this as an open question. If you can address it quickly, go ahead.

MS. HAGAN: So I think your question was, does the permit mention both terms or tentative order, and the answer is yes, it does. And what -- it reads predevelopment and in parentheses naturally-occurring. That's how it reads in the tentative order.

We can -- we can revisit the definition that we have here to make sure our point is clear, and I was also thinking that one thing I think would help is if we make sure that our fact sheet is very clear about how we intent for the predevelopment condition to be recorded, my discussion about soil maps and whatnot.

So we will go ahead and add that to the

fact sheet to make it clear that we're -- the intent is not to look back 500 years, that kind of thing. Hopefully, that will help.

MR. STRAWN: Thank you very much. Are we ready to go to --

MS. ARIAS: I just wanted to indicate that I have heard the legal issues discussed today as they were first raised by Mr. Anderson earlier, and it's definitely something that we will look into. And I do want to get with staff and look at the exact permit language that we're talking before we come up with any legal conclusion. But we will be working on that and I'll be providing them with further advice on the Board with further advice as we move forward in this process.

MR. CHU: Good afternoon, Acting Chair Strawn and members of the Board. I'm Wayne Chu. Is that better? I'll try to speak away from the microphone.

Again, Acting Chair Strawn, members of the Board, my name is Wayne Chu. I'm water resource control engineer with the southern watershed unit. And I've been tasked with answering the questions on Page 2 of the supporting document, one of which includes the questions

pertaining to TMDC or Total Maximum Daily Loads, and I guess, the other category questions.

Now, these -- I'm going to be taking these questions a little bit out of order because they don't all quite fit together. So I'm going to actually start out with question 2 under the other categories. That's the one related to the non-stormwater discharge from putting in foundation drains. Then I'll go into answering the questions related to the TMDL, specifically the one most related -- the beach increased bacteria TMDL as they're in the permit requirement now, and then I'll wrap up my portion with answering the question -- providing an answer to question 1 on the other category. And I'll probably take a pause between the first question about the non-stormwater discharges and kind of combine my answers for the TMDL and other because -- they are somewhat related if that's okay with you.

So let me begin with question 2 under the other category. This was asked by Mr. Anderson. It was basically a question asking for additional clarification about the elicit discharge requirement pertaining to discharges from putting in foundation drains. Now, this question is a very

specific question about a very specific part of the permit, so I'm just going to try to explain how it evolved and became part of the permit and how it's supposed to work. And if you have questions, I'll try to clarify as much as I can.

So in the Orange County and Riverside MS4 permits, but not in the San Diego County permit, non-stormwater discharges from the footing drains and foundation drains are required to enroll under an MPS permit for discharges from groundwater extraction operation to surface waters. We have two of these types of permits in this region. One specifically for discharges from groundwater extraction to San Diego Bay and another one for all the other surface waters in the region.

Now, the application under both of these permits to enroll under the permits requires a submittal of analytical data from groundwater that's going be extracted and discharged. So during the development of this tentative order, it was brought to our attention that there are situations where a project might include a footing drain or a foundation drain that is actually located above the groundwater table.

And these footing and foundation drains

are placed there in case water that infiltrates from precipitation or irrigation perhaps, you know, infiltrates to the footing or foundation, and that drain is basically going to direct that water away from the foundation to protect it from damage.

So -- but because these footing or foundations drains are located above the groundwater table, it's kind of hard for them to collect a groundwater sample for analysis to actually enroll under the permits for these types of discharges. So we made an adjustment to this permit, so that only projects that are located -- that have these types of drains located or required to enroll under the MPS permit or permits, one of the permits in order for the co-permittees not to treat them as an illicit discharge.

Now, for all other projects that are located above the groundwater table or these drains are above the groundwater table, they're not required to enroll under the MTS permits, but they have to be addressed as illicit discharges by the co-permittees if they are discharged non-stormwater and if they are found to be a source of pollutants that is of a concern. Now, this will be accomplished through their illicit discharge

detection and elimination programs that are required, and so you know, we would expect that, you know, the adjustment we made should address the concerns that they brought to our attention.

Is that clear? Is that understandable? I know it's a somewhat complex issue. If you don't have any questions, I'll continue on with the TMDL questions. My arm is actually getting really tired holding this thing.

MR. MORALES: I do have a question, and it may not be an easy one.

MR. CHU: For the last --

MR. MORALES: Yeah. Is there a very simple way of explaining that because if I get asked the question, I'm not going to be able to explain that as well as you just did.

MR. CHU: The simple answer is if there's a footing drain located at or below the groundwater table, it's required to enroll under the MPS permit for groundwater extraction, and they can do that because they can collect the groundwater. If it's located above, then they're not required to enroll under the MPS permit. But if there's a discharge, then that may be considered an illicit discharge if it's a source of pollutants.

MR. MORALES: So if there's a discharge -- any type of discharge, it could be considered a discharge, a source of -- regardless of whether it's a footing or foundation drain?

MR. CHU: Correct, correct. Basically, you know, this is part of a -- the permit that deals specifically with non-stormwater discharges and how the co-permittees are expected to treat non-stormwater discharges as either illicit or something that only needs to be addressed, if that's -- a very specific section and provision within the federal regulations.

MR. MORALES: Okay.

MR. CHU: So can everyone hear me now?

Okay. So let me continue. Questions related to the total maximal daily loads. And these are questions that all are related specifically to the beach and creeks bacteria TMDL, which I'll be referring to here on out as just the bacteria TMDL. Now, there are five questions that were laid out but when I was reviewing the questions, the questions appeared to be asking clarification primarily in two areas.

The first is really asking the feasibility of achieving the requirements of the

bacteria TMDL. That's questions 1, 2 and 5. And then, you know, the other area of clarification needed was related to water quality limitations effluent permit requirement or WQBEL's, as I'll refer to them. And the way they're expressed or should be expressed as permit requirement.

So let me just refresh your memory about what a TMDL is. A TMDL is the maximum amount of pollutant that a water body can receive and still attain water quality standards, and the water quality standards are laid out in our basic plan. The answer to both of these questions and all of these questions fundamentally begin and end with the basin plan. But before I get into the details, let me just give you the short answer to all of the questions.

In response to the feasibility questions, our answer is yes, it is feasible. Or we believe achieving the requirements of TMDL is feasible, and we have great confidence that over the next 20 years the co-permittees will be able to implement and advance the science that will allow them to achieve the requirement of bacteria of the TMDL. Now, in response --

MR. ABARBANEL: What measurements are

actually made to determine what the load is?

MR. CHU: Are you asking how the calculations are actually --

MR. ABARBANEL: What's done? Give you a sample of water and I say how much bacteria per cubic liter or whatever measure you use?

MR. CHU: Well, right now, you know, there's some -- basically it all comes down to these indicator bacteria analyses that calculate, you know, the most probable number of colonies of bacteria. And we have standards within our basin plan that lays out the objectives that need be achieved in order for the water quality to be considered supporting the beneficial uses. Most of the bacteria water quality objectives are associated with recreational beneficial uses.

MR. ABARBANEL: I understand the objectives, but the chairman of the board of supervisors stood in the equivalent place but south of here, and said it couldn't be done.

MR. CHU: Right.

MR. ABARBANEL: You're standing in the same place and saying it can be done. I'm saying I don't know if it can be done; tell me how to do it.

MR. CHU: And I will try to explain that as

well as I can when I get into the details. I will get into that a little bit more and in fact, at the end of that, I will -- I still haven't answered your question. I will try to.

MR. ABARBANEL: If you're going there, I'll wait.

MR. CHU: Okay. But let me give you the short answer to the other question. In response to the questions about how WQBEL's should be expressed in the permit, the WQBEL's, we believe has been expressed as intended by the bacteria TMDL, but we also believe that there may be some additional components that can be added to the WQBEL's that could provide some additional flexibility to the co-permittees to demonstrate that they are complying with the TMDL, and that gets a little bit to your question, Mr. Abarbanel.

I'll go through my answer and hopefully that will make it a little bit clearer. So as I said before, the -- the answers to the questions really begin and end with what's in the basin plan and the requirements of the TMDL were based -- developed based on the water quality objectives for bacteria in the basin plan. Now, the TMDL includes requirements to address bacteria loads during dry

weather and wet weather. And they are very specific components, and this is important to the feasibility question.

So now for those of you who weren't around when this TMDL was initially being developed, I believe Mr. Anderson was, so he probably heard a lot of the earlier deliberations. Back then, the basin plan actually only included water quality objectives for bacteria without any pathway to consider exceedances of those water quality objectives that may have been cussed by natural or background sources of bacteria.

Now, for the dry weather bacteria TMDL, this doesn't really have much of an effect because the assumption is, at least for this TMDL, the way it was developed, the assumption was that it was all the bacteria loads during the dry weather were due to amplifikentic (phonetic) activities and were primarily being discharged from the co-permittees MS4 during dry weather. That's why the elimination of non-stormwater is such an important permit.

When the co-permittees are in compliance with the, you know, the fundamental requirement of the Clean Water Act, or an MS4 permit, which is to effectively prohibit

non-stormwater discharge into the MS4 and thus, eliminating non-stormwater flows from non-stormwater flows and the bacteria loads associated with that MS4. They will be in compliance with the bacteria TMDL for dry weather. So co-permittees are already required to implement a program, as I mentioned, the last answer. To implement their illicit discharge detection program to eliminate or effectively prohibit those non-stormwater discharges into and from their MS4s.

So we believe that, you know, over the next ten years that is an achievable requirement and achieving that requirement will meet the requirements of the TMDL. Now in contrast, without having a pathway to consider exceedance of those bacteria during wet weather flows, you know, the earlier versions of the in bacteria TMDL essentially requires the co-permittee to almost completely eliminate their wet weather discharges in order to meet the requirements of the TMDL within the receiving water.

Now, we know and understand that it's really is not that feasible to completely eliminate wet weather flows. Stormwater is stormwater, and it's going to flow everywhere. And we also know

that there -- there are in fact, natural sources that can cause exceedances of the water quality objectives in the basin plan. So before this TMDL actually was adopted, we made an amendment to the basin plan that would allow for the use of a reference system approach or a natural sources exclusion approach, which could be applied to bacteria and account for natural and background sources of bacteria which would then allow for some discharge of bacteria from the MS4s.

Now, in this case, we used a reference system approach. And the reference system approach allows for exceedances of the bacteria quality objective to occur based on the exceedances that are observed in a comparable reference system. Unfortunately, at that time and up to this point, we don't have any region-specific reference system that we -- we were able to use at that time or can use now.

For -- so for the bacteria TMDL at that time, we used a reference system that was developed and used up in the Los Angeles region, which is very similar in climate and I guess, topography and, you know, characteristics of San Diego. And, you know, and we use that as an initial exceedance

frequency or an initial set of exceedance frequency with the expectations that the co-permittees would develop the information necessary to amend the TMDL with region-specific information.

So you know, before we had this basin plan amendment that allowed for those reference system approach, our earliest drafts of the bacteria TMDL had a zero percent allowable exceedance frequency. That is -- your reaction is exactly the reaction of everyone else, I think. Which basically meant that the co-permittees would essentially have to eliminate all the wet weather flows. But with the amendment that we made to the basin plan amendment or to the basin plan by incorporating that reference system, the final bacteria TMDL, as they were incorporated in the basin plan, had a 22 percent allowable exceedance frequency during wet weather.

And, you know, before where you had, basically -- I believe it is up to a 99 percent reduction in bacteria loads in wet weather, this adjustment and this reference system basically changed that to they had to reduce the bacteria loads in wet weather to be 55 percent or less, depending on the watershed. So you know, reduction

of bacteria loads of 55 percent or less, instead of almost 99 percent in every case is definitely more achievable already than 99 percent.

Now, you have seen the answers from the co-permittees about whether it's feasible to achieve the requirements of the TMDL. They make a lot of assumptions and provide several examples, all of which support that assertion that it's not feasible, but we fundamentally disagree with their position that it's not feasible. In the last several years, we have seen that many beaches covered by these TMDLs are consistently receiving high marks such as A's and B's on beach report cards instead of, you know, the C's, D's, and F's they have been getting before.

The Orange County co-permittees in the last board meeting, you know, presented you some graphs that show they really achieved some significant load -- or bacteria concentration or really been able to reduce those bacteria concentrations to below water quality standards in a lot of cases. And also, during the last 303D listing cycles, several of the segments that were listed under this TMDL have been removed from the 303D listing. So we know that improvements have

been and can be achieved. And much of this actually happened before the beaches and creeks bacteria TMDL were actually effective.

So now, keep in mind we're not actually requiring them to achieve these requirements, you know, next year or even within this permit term. They have been given up to 20 years to fully comply with the requirements of these TMDLs. Now, there are -- there are many BMTs that the co-permittees can implement to a greater extent than what they're doing now to achieve reductions in bacteria load for dry weather, and dry weather, as I mentioned before, elimination of dry weather flows, we believe is achievable and is a fundamental requirement of the permit.

But not only is, you know, eliminating these dry weather flows a fundamental requirement of the permit, it's also good for water conservation and some of our water supply issues we're dealing with. And we have made modifications to this permit to focus the co-permittees' efforts on eliminating those dry weather flows.

Now, for wet weather, a lot of bacteria load can be removed by improving or augmenting implementation of many of the programs that they're

already required to implement. The requirements for the development planning that you heard a lot about and with hydromodification and, you know, the requiring that we placed on the permit, encouraging retrofitting and stream rehabilitation, these can result in reduced volumes of stormwater that's being discharged, which also removes bacteria loads associated with those discharges.

You know, and in lot of cases, we have been told that bacteria loads are coming from pets or domesticated animal waste, which can also be removed from the co-permittees' systems through more targeted inspections, better education outreach, basically it's getting people to make sure they're not pooping out there with their dogs. And that is a technical term.

So we know that the co-permittees are actually capable of reducing bacteria loads, as they told us on many occasions and they've shown us through data and even though they have been able to achieve so much in the last five or ten years, for some reason they don't want to believe that they can, in fact, achieve these TMDLs. But we believe and they demonstrated to us on several occasions that if we allow them to, you know, innovate and

effectively and efficiently use their resources, which we believe this permit will now allow them to do even more, that they will be able to achieve their requirements of these TMDLs.

Now, that doesn't get directly to your question, Mr. Abarbanel and I'm going to talk a little more about -- I forgot to move forward. Your question really falls under the WQBEL's question and how do you measure and how do you demonstrate that you're going to in compliance with the TMDL requirements.

And so I'm going to first answer how we placed it into the permit to be consistent with the -- the -- how it's laid out on the basin plan. But I'll speak to how we can provide some additional options. So at this point, you've probably read some of what -- San Diego County co-permittees have stated about how they believe the WQBEL's should be expressed in the permit and essentially, the co-permittees would like to see the WQBEL's expressed in BMP base and not concentration based. But again, you know, we look to the basin plan for the answer and how things should go into the permit.

Now, the beaches and creek bacteria

TMDLs were expressed in two ways, the TMDL themselves: They were expressed as either concentration based or mass-load based. Now, under the discussion of concentration TMDL the basin plan states and I quote, "Meeting the concentration-based TMDL in the receiving waters will be used to determine compliance with the TMDL."

Now the mass-load based TMDL discussion doesn't have any equivalent statement. But it does state the mass-loading numbers provide a tool for identifying bacteria sources that need to be controlled and existing bacteria loads that need to be reduced to meet the TMDL in the receiving waters.

Now, the TMDL are to be included in the Phase 1 MS4 permit. And the basin plan explicitly states that "The WQBEL's will likely consist of receiving water limitations, based on numeric targets," and the numeric targets consists of the water quality objective and allowable frequency, "and require implementation of a BMP program to achieve the TMDL receiving water." There's nothing in that statement that requires the WQBEL's to be expressed as BMP based WQBEL's. It only states

that the BMP program is going to be required to achieve it, and that is -- it was stated to basically say you're going to have to implement more BMPs to get the result that we're looking for these TMDLs.

Now, there was a major assumption that was placed within the basin plan. If the receiving water limitations based on the numeric targets are met in the receiving water, the assumption will be that the MP4s have met their waste load allocations. So that basically means if the receiving waters are meeting the water quality standards, then the MS4s are off the hook. They have done what they need to do. And so, you know, they met the water quality objectives and the allowable receiving frequency.

But then the question because what happens if the receiving water limitations aren't being met. So well, the basin plan also has an answer to that. If however, the receiving water limitations are not being met in the receiving waters, the Phase 1 MS4s will be responsible for reducing the bacteria loads and/or demonstrating the controllable discharges from the Phase 1 MS4s are not causing exceedances. The Phase 1 MS4s may

demonstrate that their discharges are not causing exceedances in the receiving water by providing data from the discharge points of the receiving waters, by providing data collected at jurisdictional boundary, and/or by using other methods accepted by the San Diego Water Board. So, you know, we're looking at what the basin plan was telling us, and you know, meeting the concentration based TMDLs in the receiving waters will be used to determine compliance.

And then the Phase 1 MS4s may demonstrate that they're not causing any exceedances by providing data from their discharge points to the receiving water. So it makes sense to use concentration-based WQBEL's because you know, concentration -- concentration-based TMDL, it's not being met there, then take a look at the discharge and see if they're meeting it there. Okay. So we do realize that, you know, this kind of puts them in a difficult situation because you can't necessarily monitor every discharge point in order to determine that you're actually complying with the concentration-based WQBEL's. So, you know, we believe there's enough flexibility in the permit -- or in the basin plan language that

allows to us to explore some other options. So we're currently exploring those options which may allow us to incorporate a mass load based way to express the WQBEL's, maybe in terms of percent reductions. And then which can also be linked to a BMP program somehow that they could use to assure they will achieve those types of reductions, and then also have a way to monitor in order to demonstrate that they're, in fact, achieving those types of load reductions. And then go back.

So that is another possible option that we -- and if we can't develop such an option, we will put it into the permit requirement for this TMDL. So, you know, I believe that answers your question.

MR. ABARBANEL: It does, but it doesn't. And I don't mean to be confused. Implicit in your statements, all of which I understand and it was well explained, is the fact that we can in fact, either in mass loading or concentration measurements, determine what the bacteria count is with this selected subset of business of bacteria that might be there, that's fine.

MR. CHU: Right.

MR. ABARBANEL: The statement that I heard

from Mr. Roberts from the Board of Supervisors was that we scientifically could not do that and therefore, we should not be asked to do it. I don't know which is correct. I am inclined to go with you, but I don't have a reason to go with you or him.

MR. CHU: Okay. Let me -- let me finish up this portion of my answer and then I do touch upon that a little bit.

So I just want to get back to a statement that Mr. Gibson stated, the regional MS4 permit is not a TMDL. It's a permit for the discharge of waste for the protection of water quality and it's supposed to be in accordance with the water quality standards and the basin plan. Now, the MS4 permit regional MS4 permit is implementing requirement of bacteria TMDL as they are described currently in the basin plan.

Now, many of the objections that you've heard from the co-permittees with the requirements really can't be changed in this permit, but they have to be changed in the basin plan before we can change it in the permit. Now, the -- you have heard a lot of statements that, you know, these bacteria TMDLs are not based on sound science, but

in fact, as part of the basin plan amendment process, especially for this type of a basin plan amendment. You know, we based at that time on the best available data and science and information at the time, the approach of the TMDL went through an external scientific peer review. It was actually a peer review by professors from UC Santa Barbara and UC Berkeley, and the peer reviewers found that the approach was -- was scientifically and technically sound.

Now, we also understand that there's always going to be new data and that new information -- that information and data can advance our understanding and can result in improved TMDL requirements. And we're not opposed to, you know, improving the TMDL. We're definitely not opposed to that. It's just not something we can actually do within this permit. You know, there is new scientific information that is being developed and information can, in fact, be used to modify the requirement of the permit and may, you know, be something that we want to explore further.

But, you know, it's really up to the co-permittees at this point to provide us the data information -- and information that would support

modification of the requirements of the basin plan TMDL. And then at that point, we could make changes to the permit requirements.

MR. ABARBANEL: Let me jump in here because I think this makes the nexus. I haven't seen the experts' opinions, but let me -- let us all for the moment accept that one can in fact make the measurements that implement or monitor the standards that are in the basin plan, which the MS4 permit looks to to give the terms of the permit itself.

Then comes the question of how much does it cost to do that. And since in one of responses, I think it was from the co-permittees, the estimate was 500,000 to 96 billion dollars a year. That's only five origins of magnitude of error. It left me with the feeling that they have not the slightest idea what the cost is. I don't know. Okay. But those are the numbers that were written down on the page. I'm going to accept for the moment the fact measurements can be made so that we can determine the goals of the basin plan were met or not met. You have been issued a permit that says you must meet them. If we can agree on that, then the cost issue comes next.

MR. CHU: Right.

MR. ABARBANEL: How is that?

MR. MORALES: Actually, that helps answer one of my questions, and I wasn't certain whether the co-permittees were telling us that it couldn't be measured or they could measure it, but they would never be able to get to the levels of the TMDL. And what I'm hoping to get from both sides, because in this environment, I operate a little better with science and facts than faith -- we'll save faith for the weekend, so I don't want, you know, the co-permittees coming up and telling me, can't do it. Trust me, just like I wouldn't want our staff to stay yeah, I believe they can do it. What I was looking for was something more along the lines of I heard two things.

One, that if they reduce water flows, that will reduce the bacteria. If they reduce dog poop or pick it up, this will reduce the bacteria. It would for me be helpful if the discussion was more along those lines, you know, a reduction of water flow by 20 percent will have generally, you know, 15 percent reduction in bacteria. If we know how much, you know, dog feces is getting into the system, if we reduce that by 50 percent, that will

have a reduction of this magnitude.

And at the end of the day, if someone can say look, here are possible steps. Not the universe of all the steps, but just some. And if you implement this, this, this and this, you're getting real close just by looking at these numbers. Now, on the other side, the co-permittees, I don't want to hear you guys tell me, I don't think it can be done so we don't want to try and don't make us, because it costs billions and billions and billions of dollars.

Tell me why it can't be done. That's kind of the guidance that I'm looking for as a board member, rather than just having to say well, I've got one side it can be done, and another side telling me it can be done, you know. I don't work that way.

MR. CHU: I think, you know, what you're both speaking about is the level of uncertainty that's involved with these TMDL, implementation of the TMDL, the cost associated with the implementing the TMDL and you are correct. I mean, there is intrinsically a lot of uncertainty both in when we developed the TMDL, you know, we didn't use region-specific information, but we do know that

the waters are impaired.

That much, we know. We don't know how much it's going to cost, but we know it's going to cost more. That much, we know. The -- you know the ability to actually meet these requirements, you know, I believe it can be done. The co-permittees have actually all submitted, you know, as part of the TMDL requirements, comprehensive load reduction plans, which lays out what they believe it will take to actually meet the requirements of the TMDL. So I believe they think it can be done because they put together plans, but it's the cost associated with that and the level of effort that may have to be actually implemented that they're uncertain about.

And so it's at that point, you know, they don't know 100 percent whether or not they will be able to comply. They don't know 100 percent whether or not it will actually cost what they claim it will cost. In fact, they don't even know 100 percent whether or not they will have to implement everything they propose, so there is intrinsically a lot of uncertainty at this point. And part of this process requires there to be, you know, some additional studies, you know. It may

require some additional modifications of the basin plan -- amend part of the basin plan TMDL requirements, but you know, a lot of that does fall upon the co-permittees at this point to collect the data, provide it to us, so that we can make the changes. But what we have in the basin plan right now is to protect water quality so that it will support the beneficial uses that we all want to have, and this is especially important. Bacteria is something that really is associated with a fundamental reason why we all live in San Diego. We want to be able to enjoy our waterways, have our rec one water contact beneficial use, and if there's high bacteria, that limits our use. That limits that beneficial use. And the fact that, you know, every winter, every storm event basically requires a 72-hour moratorium on swimming means either that onem the bacteria annual loads are high enough that we can't enjoy the water; or that, you know, the co-permittees are -- don't want to implement anything and they're basically being precautionary in their approach and saying don't go in the water because we don't want you to get sick.

So, you know, I believe and I

fundamentally hope that we can achieve improvements in water quality, especially during wet weather because I think that's some of the best times for locals, especially to be able to enjoy our beaches and creeks because, you know, in the summertime we're overrun by tourists and, you know, I personally don't enjoy being in those big giant crowds. I love the beach in the wintertime.

But, you know, fundamentally, that was the original intent and goal of the TMDL. And we're just trying to move it forward, but fundamentally, we have to include the TMDL within this permit. It's the statutory requirement, you know, how it's laid out in the basin plan -- so it just needs time to evolve.

MR. ABARBANEL: My understanding, the TMDL in the stormwater. In other words, we didn't fully integrate the TMDL into this permit. We only took the numbers and those are enforceable immediately.

MR. CHU: That's not true. We have a section specifically about the WQBEL's and what they're supposed to be at the end of the compliance schedule. There's actually a section in there called Compliance Schedule by which the WQBEL's needs to be achieved. So we're actually going to

probably restructure the TMDL requirements to put those requirements a little closer to each other to make it a little clearer, by which dates WQBEL's may be achieved.

But, I mean, we did put everything in the TMDL into the permit. You know, like I said, I believe it's in there as intended. But, you know, I believe there is some room where we can make some changes to provide, like I said, some additional options in which they can demonstrate they are complying, not necessarily through only concentration-based measurements.

Now, I just want to mention that, you know, the co-permittees are actually right now in the middle of doing a special study for our region to determine, you know, region-specific allowable exceedance frequencies. You know, so hopefully once they have completed that study, they'll provide us that information. We can make the adjustments to the basin plan with that updated information.

And at that point, we can also make adjustments to this permit. It's much easier to make adjustments to the permit than it is the basin plan. The basin plan amendment process can take,

you know, upwards to a year or more to actually get that fully implemented into the basin plan.

So can I just finish up with the last question because it kind of gets to something we have been trying to do with -- with this permit to, you know, make the TMDL a little bit easier to work with. Because as you have -- you have probably seen now through this explanation, that working with the TMDL and modifying the TMDL is actually quite onerous and difficult.

So I'll speak to that a little bit and the answer to this question about the one size fits all approach. Now, this question was asked by Mr. Destache and I believe seconded by Mr. Abarbanel. Now, the answer to this question really depends on how you look at it. Now, is it one permit that applies to the entire region and applies to all the co-permittees? Well, yes. And in that sense, it is a one size fits all. But, you know, the difference here between this permit and the previous permit is that we have made significant changes to the requirement to letting each management area -- there's ten of them in the region that we have identified, and each co-permittees within each watershed management area

can customize their program to address the priorities that they have identified as their highest priority and that can have the greatest beneficial impact of water quality within that watershed management area.

You know, you heard about the one size fits all component to the requirement, you know. You heard about the hydromodification requirement that, you know, it's predevelopment for every site. You know, and there's jurisdictional components that every co-permittee has to have and implement within their jurisdiction and minimum control measures they have to implement and performance criteria associated with development planning, and that has to be implement by each co-permittee.

But we drafted the requirement of the permit to give them great flexibility in how they implement those requirements and fulfill those requirements. The hydromodification requirement, we, you know, those requirements aren't in all their current permits, but they're, you know, in very prescriptive manner. They do allow the waiver option which nobody has really tried to implement. So they basically, you know, decided they were going to try -- try to avoid having to do

hydromodification to the extent possible by having exemptions.

You know, fundamentally we're again, trying to go with this watershed approach. Everybody is part of the solution. Everybody who is part of the development is also part of the problem. And you know, we need to fix the watershed as a whole. Holistically, not parcel by parcel, not piece by piece or extreme reach by extreme reach. It is the entire watershed. So, you know, we -- we try to provide that flexibility, but the underlying requirement is that each co-permittee must implement programs that will result in water quality improvements within the context of a watershed management area; right? Not within a particular parcel or area or stream segment.

Now, in addition to that, a major concept we have been trying -- we tried to incorporate into improving water quality within the context of a watershed management area again is the integration of other programs and requirements. For example, the requirements of TMDL, you know. In the past, the expectations, there would be a separate plan and whole separate process for

implementing the TMDL, you know, maybe a development of a plan is part of this permit that would be implemented in a separate way. You know, and then there's also these special protections now for areas of significant or special biological ASBS. You know, that requires a plan as well.

Well, what we tried to do is incorporate those requirements into this permit and all of those can be folded into the one water quality improvement plan for the entire watershed management area. Now, we've also structured the requirements of the water quality improvement plan in a way that may allow this Board to utilize those plans to demonstrate that the priority of developing an additional TMDL can be reduced or even may not even be needed; right? Wouldn't that be great?

So you know, this -- so, you know, with these water quality improvement plans are trying to integrate the needs of the TMDL program as much as possible and the requirements of the permit so that the Board and the co-permittees have more flexibility in addressing impaired water bodies that are on this the 303D list and would allow us and the co-permittees to utilize our resources

toward implementing programs and BMPs that will actually address those impaired waters and improve water quality instead of diverting our limited resources toward developing TMDL, getting them into the basin plan, which in the end, is going to require us to implement those same programs and BMPs to improve the water quality that meets those standards but with much less flexibility. Because them we have the element of the basin plan that we have to deal with.

Now, furthermore, we're trying to allow the co-permittees to integrate additional water-related programs into the development and implementation of their water quality improvement plan. You're probably all aware of, you know, the work that's being done under the IRWM program, the Integrated Regional Water Management Program. They have done a lot of planning already, and they should be able to use those efforts and integrate that information into their, you know, water quality improvement planning efforts and then also be able to potentially leverage the resources that are being used towards those efforts to also improve water quality.

Now, we also want to encourage the

co-permittees to try to consider incorporating, you know, the planning for programs not just from the IRWM but pertaining to infrastructure upgrades, transportation, flood management, water supply augmentation, groundwater recharge and even flood -- plain management. You know, so now in a grand sense, we are trying to create a one size fits all, not just for improving water quality, but you know, looking at our watersheds holistically and trying to integrate everything that we need to manage within that watershed and make sure we're using, you know, our resources as efficiently and effectively as possible. And we honestly believe that by doing this, we will allow the co-permittees to identify, you know, not just one, but hopefully multiples, four or five potential uses of one dollar; right, that they spend for their programs to improve water quality or other programs, you know, and use that one dollar, you know, really well.

So, you know, that basically concludes my remarks and I can answer any additional questions you might have, but that is the goal we're trying to achieve here, to give everything a little more room to breathe. And I think TMDL

especially have really highlighted the fact that, you know, in lot of ways our hands are tied if we go down a certain path. But we have an opportunity here to, you know, do things differently and that really takes, you know, some change.

And it's going to require a lot of change on everybody's part, not just us, but the co-permittees, the other parts of the watershed, you know, everybody needs to be involved and be part of the solutions.

MR. STRAWN: Thank you. At this point, I think we're way behind schedule, but to the point we may not be able to get to the third topic, but I think we should continue to get this one done. We will ask for the various speaker cards that want to talk to TMDL and come forward, and I will ask that if you already have spoken on the other topics, you give somebody else a chance.

And if we have to shorten these up, we will. But as of right now, I want to make sure we get everybody. And also, do me a favor. If you hear somebody go before you that says basically the same thing you want to say, that's good. You can -- we will give your card back.

MS. KOLB: Good afternoon. My name is

Ruth Kolb. I'm with the City of San Diego and today I am representing the San Diego County co-permittees. And at our last meeting in November -- Wayne, can I have slide 12 of our presentation.

Thank you. Thank you.

One of the things we talked about was BMP based water quality -- WQBEL's is what they are called. What we were asking for is to match the language that was adopted in the TMDL. Okay. We want to facilitate innovation. We want watershed-based approaches. In fact, I want to thank Wayne and all of the staff for working with us on the water quality improvement plans. That strategy does give us flexibility to work together to try and figure out what exactly are the problems, like Lillian was talking about this morning to move forward and to try and correct the problems.

We're not sitting here saying we can't do it and we won't do it, but we need to be able to have some flexibility to move forward. And that's what the watershed-based approach does. In fact, according to EPA, there's a reasonable assurance modeling that is allowed. You model out the BMPs that gives us the best projected document

compliance with the projected pollutant load reductions and that's one of the things we're asking for, is to be able to go forward with this reasonable assurance modeling so that we can figure out what our challenges so we can move forward to better manage it.

You know, in managing it and having an idea of what to do we need to do actually helps us go forward to get funding. If I go forward and say I need to take a two million bacteria rate that goes consistent throughout a whole storm, down to 104, but I have no idea how to do that, that's hard to get money for. And it's very difficult for everybody here to do that, but if I go forward and say I've done the modeling. We need to put in these BMP and I have specific costs associated with it, then I can take it to City Council and say we need to put in the BMPs. These are hot test areas. We need to move forward with those first. And that really helps.

You know, and that also allows you, like Wayne said, to do monitoring. You do your BMP-based assessment monitoring and you go forward and you can figure out what in the world you need to do, how well are you functioning, is the BMP

working properly. Like in Cal Trans up in L.A., they were taking out the trash, they were increasing the bacteria loads. You got to think about these things. It's -- you know, there's all sorts of problems coming in from the sides.

Now, can I have my next slide. Let's see if I got this right. I need slide 13, which you have a hard copy of, specifically about the bacteria TMDL. I do have a couple comments. Thank you very much. And this has to do with a reopener. We really do need a reopener as we move forward on these BMPs. They may work faster; they may work slower. One of the things we need to think about, though with the reasonable assurance is, you know, we need the BMP-based compliance because we really don't know if we're going to be able to meet that.

Think about tech loading. We did four years worth of study in tech loading where we went out and we did all of the land use monitoring. We were sampling in dry weather. Dry weather is really easy compared to wet weather because wet weather is washing off the whole creek, all of the watershed, the routes, the trees, the -- even washing out the storm drains and all that bacteria is regrowing in the storm drains. It's washing off

the raccoons and the rats that live in the storm drain system. The skunks, the coyotes, yes, our cats and dogs too. But you got to understand, the standards that we're all held accountable to today are fecal indicator bacteria that comes from warm-blooded animals. Okay. It's not human versus nonhuman. Okay.

When we did the study in tech load, I actually did that. Out of 33 samples three times, we had one positive hit for human; okay? Almost all of it was coming from wildlife, the natural sources. Well, according to the symposium I went to at the end of November with EPA and all of the people that reviewed this TMDL, the risk from animals to humans is low. The risk to humans is from other humans.

So why are we doing anthroprogenic versus nonanthroprogenic? Or natural. The whole idea, the whole reason for the Rec 1 standard is the protection of human health, its risk. When we did the epidemiology study in Mission Bay, we exceeded bacteria standards every single weekend on the east side of the bay. But the fire samples, we had one hit at a place that never had exceedances; okay?

So the question is what are we doing here? Well, I can tell you, the City of San Diego is moving forward in Tecolote. We're going to be doing a QRMA study that can be applied to the region and see what exactly is the risk to human health when in these creeks, and we've got EPA saying they're going to come on board. I need to talk to your staff. I haven't had a chance to talk to staff here, but we're moving forward. We're not sitting back and either are the co-permittees. They're doing beach reference studies; they're doing creek reference studies. We're not sitting back here waiting.

And when you talk about the L.A. reference study that we used in the bacteria TMDL, the 22 percent was based on a tenth of an inch range. Our TMDL is on a two-tenths of an inch rainstorm. In fact, what is considered a dry weather day is a tenth of an inch of rain, which is kind of crazy because a tenth of an inch of rain washes off everything here. That is a fairly significant storm for us here.

So anyway, looking at this, we definitely want to reopen here. We will need some interim milestones. Things may change. That's the

science. We're not sitting back waiting and just sitting on our haunches waiting for this. We're moving forward on science and we hope the interim milestones will help us.

We also need the BMP-based WQBEL's. If we can go forward and say we need to put one of these BMPs at these locations and this priority, it really does help to get funding from City Council. And also to the mass-loading base load allocations would be very helpful. And I thank you for your time.

MR. McSWEENEY: Okay. Ruth got one thing off my list. I'm Michael McSweeney, the senior public policy advisor for the Building Industry Association. My first point is why do you think all these people are in this room today? It's one four-letter word that begins with "F." You people. It's fear, and the permit is unbelievably complex. I would advocate it's unnecessarily complex. And give me just a second to explain.

Wayne many times said the co-permittees have to have this responsibility to come back. That's like what I'm hearing you say, and I have a hard time understanding you sometimes, is that

you're setting kind of like the fence line and then it got to fill in the landscape plan. Well, the problem with that approach is I think both this organization and the co-permittees are more process-driven than outcome-driven, and that's not meant necessarily as a personal critique. It's just -- it's what you do.

And I think what we have missed over this whole thing and this is what I've been working with my new best friend, Jill Witkowski from Coastkeeper, is coming up with -- with outcome base. And too often things happen. They do their process, co-permittees do our process, then our guys go to do something and it's like oh, my. This is really complicated. This is really difficult to achieve and it's very expensive.

And I think that when my -- my chairman came before you today, the thing is in the building industry we want clean water. We want the beaches open. We want all the same things that everyone here does. It's just that it seems we have been doing things now and the engineers in our industry tell me, Mike, we're just tired of doing dumb things that won't work or don't work. Or we get these miniscule little improvements where I would

say advocate, let my people go. Let them be free. Let's try and figure out a way to kind of take the handcuffs off and let the people that do outcomes-based things help you get to where you want to go.

Beach improvements over the last ten years are not necessarily because of the MS4 permit because --

MR. ABARBANEL: May I interrupt, please. If you think you can do it better, could you come back in February with a replacement tentative order, please, Mike?

MR. McSWEENEY: Really?

MR. ABARBANEL: Yes, sir. This Board is going to adopt an order. It doesn't necessarily have to come from the water board staff, although I expect it will.

MR. McSWEENEY: I know.

MR. ABARBANEL: Are you also standing here for your chairman who was here at 9 o'clock this morning to speak out of order on this agenda item?

MR. McSWEENEY: I'm not standing here on behalf of him.

MR. ABARBANEL: But since he's not here, can I convey a message? He basically came here and

he said, they don't do it this way in neighboring states. They do it worse. We would like you to adopt those practices.

MR. McSWEENEY: I don't think that what was his intent.

MR. ABARBANEL: That's what he said.

MR. McSWEENEY: I'll apologize for him.

MR. ABARBANEL: No, no. I don't want you to apologize for him. I want you to go tell him and to apologize for himself.

MR. McSWEENEY: Okay. And last but not least, I think that one of the things that Wayne said that I find frustrating and when I say frustrating, it's not because of Michael from the Building Association. It's Michael, the citizen of San Diego. Is that -- you know, science and technology can catch up over the next 20 years and I think that's a tremendous leap of faith.

And I think what we want to see and what I've been working for the year I've been here and in talking with Jill and the co-permittees is to try and use the brain power from each organization and harness that because there's some things that the folks in my industry do very well. There are some things the folks in the water board do very

well. There are things that the co-permittees do very well, and there's expertise from the environmental community.

And I think that too often we talk over one another or we're broadcasting on the wrong frequency. And I think that the work that we have done and the process that the Board started this year has been hugely beneficial. I said this at the last meeting. We continue to meet with these folks and work, and I think that we can get there from here. It's just that the time pressure of the order coming down and the fear of the penalization is the thing that I think all of us, you know, feels like we have a gun to both sides of our heads.

And we want to be part of the solutions, and I know that, you know, what my chairman said today maybe he -- I don't think he conveyed what he wanted to convey because I think you took it completely the wrong way, so I don't think we're --

MR. ABARBANEL: That can well be. He also said that after all the expenditures over however many years, there was no improvements in water quality. Do you agree with him?

MR. McSWEENEY: I think there's been a minimal improvement in water quality from what we've done. I think the point he tried to make was the amount of money that we've spent doing project by project. If we would have been able to redirect those resources, to regional-based solutions, we would have had a better bang for the buck.

MR. MORALES: Okay. Well, I heard your chairman said this morning ten years, no increase in water quality and essentially what I heard was therefore, don't make us keep doing any work in the future or don't charge us for it. Now, that would work if, you know, this was a throw in the towel kind of board or, you know, a staff.

What it made me think was well, we've got to work even harder and it may require more resources if our objectives are not being met if it's just incremental improvement. So he may not have conveyed what he wanted to convey, at least to me because it made me think then we need more.

MR. MORALES: And just, you know, to -- since you used an analogy, most people got set free. They had 40 years of hard work.

MR. McSWEENEY: Let me leave you with this one point. A week or so ago, I told Dennis Bowling

who spoke to you earlier and Jill, and another one of our members, we went down and he showed us what he had built over the last 20 years as far as trying to explain hydromodification and some of the benefits.

And there was one channel that was the Telegraph Canyon or down in Pony Canyon where he built an engineered channel to where Jill had passed it by on bike before and didn't realize that that was a hydromodification thing, but right next to it they did additional mitigation of wetlands. But the thing is, between his, you know, engineered channel and that additional mitigation, there had to be a bump because you couldn't tie the two together because the way the rules are written. And those are the types of engineering solutions that are beneficial to the environment that allow them that, you know, that when there are dry weather throes, they can be bled through that wetland and cleaned up before they go downstream and out into the ocean.

And I think frustration in our industry is, it's like we know we can build something. We know it can work, but we can't because the rules say we can't. So I guess what we would ask is how

can we get as much flexibility in there so that when we can come up with some solutions or some creativity or Jill comes up with an idea that says hey, do you think you're engineers. How can we get this done? But then we find out there are seven reasons why we can't because that's the way the rules are written.

So it's just, you know, again I don't think the guy tried to -- it was utterly failed at the point he was trying to make. The point is right now in our industry, if we build a house, it's anywhere between 4500 and $25,000 added to the cost of the house to comply with the MS4 standards. And what happens is we clean, we detain, we release the water into a dirty system as opposed to if we would have been able to harness those resources and do something bigger for the environment that's already been built, because the problem isn't coming from the new developments. It's from the stuff that's been here for 100 years.

MR. MORALES: I would say if you and Ms. Witkowski are able to get your heads together and you build a better mousetrap, and you just say we can't use it because of the rules, if it turns it really is a better mousetrap, we'll find a way

to fix the rules to have it work. I just don't -- historically, I haven't seen that done, so more power to you if you can do it.

MR. McSWEENEY: Okay. Jill, we got some work to do. Thank you.

MR. GIBSON: Mr. Chairman, if I could offer just a thought if nothing else for members of the audience to consider clarifying for all their comments. I thought that I heard earlier this afternoon the City of San Diego explaining to us that for legal reasons, they could not make certain requirements of parties doing redevelopment on off-site locations, ergo regional approaches may not be legal. Maybe I'm oversimplifying or cutting to the chase, but I just also heard from BIA that they think regional solutions are legal and the appropriate way to go.

Our point of view is that that is true, that we think it can be done that way. Alternative compliance for hydromod being one example. And we do think that whether a legal question that would be sorted by the co-permittees who understand the constraints upon them and would be able to provide an approach with the water quality improvement plan that would work, so I'm asking that question at

least rhetorically because I'm a little confused at this point, whether all the speakers are in agreement that off site can work or it can only be constrained to on site when we're looking at redevelopment or significant new development.

MR. STRAWN: Thank you for that. And I'm going to add something here. I'm a little disappointed, I guess, that we started this whole process with the idea that we were going to open it up and have a whole number of workshops and get everybody together to do exactly what you would recommend, that we could get the best people on each of the subject matters and put it all together. And yet just about routinely through this afternoon, we keep hearing that as if nobody had ever talked to each other before.

So you've been tasked with the idea of writing down that better -- that mousetrap, it -- I don't think it should have to be that way. I think it should have come out in the workshop, but if it hadn't, then that's -- that's a backup approach. Write it down and bring it in.

And specifically responding to Mr. Gibson's comments, the City or County wants to address that and my only comment to your boss is he

probably shouldn't come in and expect to talk out of order and make us happy and that -- his time is more important than ours. I'm sure he's getting paid a lot more than I am.

MR. McSWEENEY: Okay.

MR. KLEIS: Good afternoon. My name is Drew Kleis. I'm a program manager with the City of San Diego, and I just wanted to clarify Mr. Gibson's comment. I think our attorney is not here any longer to address it, but to clarify, I think what she is saying is we can't require off-site mitigation for mitigation that -- where there isn't a nexus to a particular project impact. Aside from that issue, if a TMDL requires attainment of certain water quality standards, addressing bacteria or what have you, and as part of our water quality improvement plan, slash, comprehensive load reduction plan, we identify some restoration opportunities and enhancement opportunities, and we find opportunities to pull grants or other partnerships proactively, reactively based on being approached by the building industry or something. Those possibilities are there.

I think what she was particularly addressing was the nexus issue and the being able

to require off-site mitigation.

MR. ABARBANEL: City of San Diego is one of the co-permittees; is that correct?

MR. KLEIS: That's correct.

MR. ABARBANEL: Among all other regions, do you agree with the statement that over the last decade there's not been any improvement in the water quality?

MR. KLEIS: I think there's other folks in the room who are more skilled in answering it than me, but the quick answer that I would say is no, I think the water quality has improved. And that bears fruit in the beach report card ratings, the reduced number of beach postings, et cetera. So yeah, we have a lot of metrics. It's a complicated question, but we have a lot of metrics to show that we're being effective.

MR. ABARBANEL: Okay.

MR. SUSILO: Good afternoon, Mr. Chair and members of the Board. My name is Ken Susilo and I'm a principal with Geosyntec Consultants. I'm a professional engineer, water recertified approach if you will, storm water quality. I was the project manager for the comprehensive load reduction plans for San Diego River watershed and

for the San Luis Rey watershed.

I would like to follow up on the comments made by Ruth Kolb, specifically the comment regarding BMP limits. And the context in which I want to offer my comments are as they relate to attainability of the standards as they're expressed, so I'm going to go in and go through a few slides here.

So as expressed, the bacteria standards are not consistently attainable. I want to take a step back and sort of walk through the whole suite of activities that would need to get -- that we looked at in order to try to make an assessment, and that includes looking at nonstructural stormwater controls, structural BMPs, the combination of both, and you know, a question about uncertainty came up earlier. And that's an important one, and I want to try to touch on that a little bit, kind of highlight why there is uncertainty about the long-term plan.

The first sort of line of defense we try to employ is the nonstructural controls. Those are typically the easiest to implement, lower cost, have a significant effectiveness, but that effectiveness is variable. There is also an

uncertainty that the loading that can be controlled by nonstructural type of BMPs and, again, there isn't a whole lot of data in terms of the state of the practice of what those loading -- there are some studies out there, and so what we did is pulled all the studies we had available and we tried to -- and we had local studies and we used those to the extent as possible.

One example, though, of nonstructural source controls and effective program happened in Santa Barbara which some of you know about -- innovative way to identify where there were some weak source systems and different types of technologies. Conducting an effective source control program still resulted in noncompliance, but you know, that said, the whole suite of nonstructural types of BMPs were considered and then a short list was considered. And I'll probably give an example for the San Diego River watershed where we looked at an approach to address sanitary sewer leaks, source identification, homeless generated waste, and that would include law enforcement irrigation runoff. Pet waste came up in a question before. How do we get our arms around what the pet waste problem is? We have some

idea that the potential loading might be between 5 and 15 percent, that the effectiveness of a pet waste program might be between 10 and 40 percent. Put those together, you know, you're in the 1 percent range of total load reduction. So that is all part of the toolbox. And I want to put that all in.

All these nonstructural controls need to be sustainable and need to be ongoing. But that, sir, by nature, source control at upper end of a watershed of MS4 system, and we do see situations where within the storm drain, regrowth conditions. You have area natural sources, so that's part of the issue in terms of looking at nonstructural.

So the next approach is to look at structural BMPs, and these are a little bit more expensive and a little bit more involved. This is taken from the -- from a paper written by (inaudible) Consultants and Wright Water Engineers. We are the principal investigators for the EPA Federation ASCE stormwater BMP database. So this gives a sense as to how different types of BMPs are in that database perform with respect to the criteria we're talking about.

So the red line you see there is standard and what you see within the blue dots, is the flood quality from the database, and the green box is affluent. So if you look at, for example, the first column, bioretention, you can see, we can touch that threshold but the vast majority of the effluent data that is presented in the database -- and it's a pure view database, is above that standard. So it's difficult to attain these standards using technologies.

There are other technologies that can be used, however. Infiltration is sort of a zero discharge and, again, this infection system which is the second group of data point performed and -- equal possible to do this. But in wet weather conditions in particular, the volume of water that we're talking about is significant. If you think again, about a San Diego River watershed doing some rough calculations and sort of back to the envelope looking at a 22 percent annual -- frequency and doing some quick calculations, come up with a capture volume that we would need to address about 2000 acre feet of water. And perspective, the -- you know, a football field, NFL football with 30-yard end zone is 1.3 acres, so we're talking

about over a football field with about 1500 feet of vertical storage.

So it's a significant amount so that we look at all kinds of options, and that doesn't take into account placement, so when we're talking about retrofitting situations, we actually have to fit it into the natural storm drain system. So there are some challenges and it makes things difficult to do, get reliable attainability. You know, they're having efforts to throw everything sort of kitchen sink at the situation. So one example -- and we talked about the bacteria workshop that happened a couple -- a few weeks ago. And the number of, you know, things were brought up with respect to pathogens.

One of the topics that came up was a case study of the City of Santa Monica basically throwing everything at a situation. There were some leaky sewers. There were some birds that they fenced them off and didn't allow birds to come in, didn't allow people to get in. Extensive trash control, covering all the trash cans from birds from even getting close. It's difficult to -- to reliably and regularly and consistently meet these standards.

The other thing that we see is that there are some direct sources in the receiving water. So depending on how you do the compliance in the beach environment, you have natural sources like kelp -- we have regrowth again in enclosed system. And then there are actual human sources in those receiving waters we're trying to attack.

The last thing I wanted to talk about was the discussion earlier about reference watersheds. And this is taken from the Leo Carrillo Arroyo Sequit watershed, which is north of Malibu. It's a different data set. It starts at 2004 to 2011. So this is current evaluation. And what -- I guess the things to call your attention to are the black line, which is the wet weather, annual exceedance frequency and you can compare that to the sort of tannish line to the left, the wet weather single sample.

You can see that 50 percent of the time our referenced watershed exceeds between 2 percent allowable frequency. This plot was built on the assumption that -- point one definition. When you go to point two as Ruth said from the City of San Diego, when you go to point two, we actually have six out of eight years of noncompliance from

reference watershed. That's for wet weather. The dry weather, which is the blue dash line on the bottom, you want to compare that to the light blue bars to the right. You see there's frequent, you know, exceedance. Those exceedances can be about 88 percent of the time in dry weather.

So you know, the take-away that I would like to leave you with is of course there's a lot more information that goes to all these plots and I'd be happy to answer any questions, but the standards as currently written are difficult and the BMP-based approach then is something we can actually get to and it incorporates -- it allows some variability that are basically inherent in the solution to trying to solve the problem. Thank you. Questions?

MS. COWAN: Good afternoon. My name is Karen Cowan with Larry Walker Associates. I'm speaking today on behalf of the County of Orange. I'm mostly going to talk about the TMDL, but before I start, Chris Crom (phonetic) from the County asked me to note in response to the questions from the Board about dialogue and discussions with board staff, that the County workshops as well as providing a red-line strike-out version of the

administrative draft of the permit.

So on the TMDL question, pretty much want to speak on the concept of feasibility which was raised during November's workshop as well as the other question which we didn't talk too much about, but fundamentally why does compliance structure TMDL matter between a BMP-based compliance and the numeric affluent?

So starting with feasibility, I think the first thing we want to note is from the Orange County permittees' perspective, there is a significant distinction. We talk about feasibility versus what's in the TMDLs themselves and the basin plan amendments. What's feasible to achieve there versus how those TMDLs have been incorporated into the actual permits themselves.

From the permittees' perspective, the basin plan amendment are mass based. The waste load allocations are directly very clearly mass-based allocations, whereas the permit is concentration based affluent limit. As far as I'm aware, I believe that this is a unique approach in this region where the waste load allocations themselves are not actually incorporated into the permit, and I think it's fundamentally because what

happens there when you have a TMDL come to you and that basin plan amendment -- and as Wayne noted, it's a year-long process. There's an awful lot of analysis that goes into each of these TMDLs and the basin plan and incorporates a lot more than just than just a generic target. There's a lot of analysis that goes into different courses, different flows, different critical conditions. So if you don't know incorporate the waste allocation, you're essentially throwing out all of that basin planning amendment process.

And another thing we have been talking about a little is what have permittees actually been doing. In terms of South Orange County, they have implemented about 37 projects which are listed on the handout that was handed out earlier. Since 2003, which totals about 26 million dollars of investments and that's just for the construction of the BMPs themselves. This project has covered all sorts of different types of projects since it was constructed -- wetlands, dry weather flow reduction, channel restoration, as well as what could be termed the more high-tech solution such as pumping-multi step filtration and ozone ultraviolet radiation.

Those projects on an individual project basis have had a range of success. Some of them have been very successful on a_project-by-project basis. According to Nancy Palmer some updated figures may have up to 99 percent reduction in mass as well as concentrations. But what's really important to understand is that even if you have that mass of 99 percent reduction, they're not capable of achieving 100 percent of the concentration limits all of time, which is what the standard is written into the permit at this time.

The next concept, I think it's important to think about what really is fundamentally important to incorporate a TMDL into the permit, and that -- they're properly incorporated based on what the basin plan amendment says, which could be a mass-based waste allocation, which fundamentally more feasible to achieve than concentration-based limits with no frequencies. This is noted for dry weather, not for wet weather.

And secondly, as other folks have talked about, the important that we reopen -- both the baby beach bacteria TMDL which kind of gets lost in the shuffle with all the beaches and creeks TMDL as well as beaches and creeks TMDL. But -- is

revisiting these TMDLs. So what we're asking for is to reopen. We understand the Board can reopen the permit for a basin plan at any time, but if the explicit reopener has been there, what it says, fundamentally the Board is saying we want to revisit the terms of this permit to make sure before these final requirement trigger that those TMDLs have been revisited, that updated information has gotten into the basin plan and then the permit has been modified accordingly.

Finally, to the concept of feasibility as well as why the method of compliance matters. If you have a BMP-based compliance approach, and you have this project that achieves something like the 99 percent reduction, would -- really great stuff in the right direction. The numeric -- you achieve 99 percent. Now, the 100 percent, your board doesn't have discretion and the permittees would be found out of compliance and potential subject to mandatory penalties.

If you have the BMP-based compliance route, that BMP-based compliance can be structured with high accountability with milestones and assurances that things will be achieved and permittees do not implement their plan, you can

find them ought of compliance. So if you take a city or county that does the 99 percent reduction, you can continue to hold them in compliance of their permit and work with them and give them more time and more resources.

As noted earlier, we can do anything with enough time and enough resources. But if you have a permittee that doesn't do anything, you still have an enforcement mechanism to enforce upon that permittee.

I'd also like to note there has been a lot of talk about the BMP-based compliant route as of late that it is a safe harbor. I think that we would as permittees, disagree with the fact that it would be a safe harbor, as I noted you can structure that compliance very concretely where you have those discrete milestones and discrete actions where you can truly hold permittees accountable. And I would also like to note that conversation was right after the adoption hearing in November, and members of Board as well as Board staff directly addressed that and said they do not believe that the watershed approach that we're talking about here is actually a safe harbor.

And then lastly, the concept again

bring it all back to feasibility, a numeric limitation -- EPA does have a member -- how to incorporate the MS4 measurement and I think sometimes what has been discussed as feasible is whether or not you can calculate a limit and I think that that's the wrong definition of feasible. The definition of feasible is what you all asked earlier, can you obtain it.

So I think with the co-permittees there's a question, and I think Wayne talked about it as well, is the uncertainty. The BMP compliance approach does provide you all discretion. And I believe that will be all the comments I have.

MS. ZAWASKI: I'm Lisa Zawaski, City of Dana Point. I have just one quick point that I wanted to make, and sample of another concern of the concentration based approach limits. We all talk that decreasing dry weather flows is a good management measure to help achieve the TMDL, but in doing so, back in -- that increase the concentration. So by doing the long-term management measure of reducing flows, we could be put ourself in noncompliance with -- with the concentration by affluent limits, so I just wanted to use that example to make that point. Why

another concern. Thank you.

MR. STRAWN: Do you need a break?

THE REPORTER: No, I'm good.

MR. PADRES: Hello again. The thing I wanted to come up on -- actually not the TMDL, so before I started it's on the other topics that were also included in the staff presentation. I want to make sure that you're okay with me drifting on to that or if you just to address more TMDL stuff first.

MR. STRAWN: I see two more speakers to the TMDL. No? Any more TMDL comments? Then we will let you speak, but I'm going down to two minutes.

MR. PADRES: One quick thing. I'll do my best. Claudio Padres, Riverside County Flood Control. First I want to thank you guys for holding this workshop because I think these are really important issues if we really want to be serious about focusing outcomes, which I think everyone in the room does. It's important that we talk about these issues and resolve these issues so we can draft a permit that actually allows us to do that. Because I think that's a lot of fundamentals that underlying, a lot of what we're discussing today.

In response to the one size fits all, again I mentioned earlier I would come back to that. Some of what the staff was discussing in response to that, I -- it didn't sound to me like it was directly answering questions, although I think that there was information in it. One thing I did hear in the staff presentation is that the permit is drafted to allow us to go beyond what the permit requires, and it says you have to do these things and we want you to go beyond the permit to address your priorities.

The problem is that there are portions of the permit that don't allow us to do that or don't allow us to reallocate resources to those priorities. I heard from one of the board members -- I couldn't see because I didn't hear who said it -- that if we're not achieving the kind of improvement in water quality that we want to be seeing by now, that we may need to be doing more.

Well, one thing I heard from staff early on in the original workshop is that they had to kick this off and that we don't necessarily need to be doing more; we need to be doing better. So we need to take what we're doing now and do it in a smarter way and make better use of those resources.

So rather than always going beyond the permit and trying to do more and more and more, we need to find ways that to be more efficient with what we've got.

So to that end, that's where I bring up one size fits all. We don't need to do one size fits all anymore; we need to use the water quality improvement plan and follow what it says, it says identify your priorities and identify the strategies that best identify -- wow, that was quick.

So hydromod is one area where that -- where that comes into play where one size fits all. Two other areas that I wanted to bring to your attention are the retrofit and stream rehabilitation requirements. I will never argue that those are needed in certain circumstances to do retrofit or to do stream rehabilitation, but they aren't needed everywhere. There are streams that do not need a restoration plan. They are in decent condition already, but you have -- the permit would nevertheless require to develop those plans to make those restorations that are needed.

Another one is the -- and again, instead of allowing requirements to be tailored to

run off characteristics of a particular site, it says retain a predefined volume, even if under natural conditions that volume would have run off. So you have requirements that are actually in effect. Their own hydromodification by altering natural hydrology because retain a certain volume, even if like I said, that volume would have naturally gone up.

So these are three other areas of the permit that I think are still a one size fits all. They -- the good efforts that were started with the water quality improvement plan to identify the strategies that matter and focus resources on those are great, but there are still elements in the permit that keep us from doing that by saying do these other things anyway, even though in certain circumstances those might not be needed.

I guess what I'll leave with is in response to the question before is have there been improvements in water quality. I would say absolutely there have been, but we can do better. And I think that's what we all want to do, is we want to be able to take the resources we have and put them to the best possible use through that water quality improvement plan, bring together all the stakeholders, identify

what are the priorities, what are the strategies to address them, and put all our efforts on that so we can knock those things out.

So are there improvements? Yes, but we can do better. Thank you.

MS. SKORPANICH: I'm Mary Anne Skorpanich from the Orange County watersheds. I'll try to hit that right balance between not talking too fast but finishing up pretty quickly.

I would echo most of what Mr. Padre said from Riverside County and go a step further to say that we think that the flexibility that's intended in the permit is excellent. It's the right direction to go in. We think the water quality improvement plan is the right way to go about that. That does get us away from a one size fits all approach, but that's just Provision B. The permit and most of the other provisions of the permit, it -- it falls back to that old style of sort of the one size fits all and being very prescriptive about programs. I would say both an existing development program, the hydromodification, maybe even the new development sections could all benefit from the water quality improvement plan being the center structurally of

the permit.

And so that you figure out what your priorities are, what are the good resources that you want to continue to protect and figure out what that hydromodification should be in that watershed. That would be really the kind of flexibility and room for innovation that your staff has tried to achieve with this draft. So I would really encourage structurally -- we introduced this notion at one of the earlier workshops is to change that whole structure and really make it the central focus of the whole overall program.

And then I wanted to just make one other comment generally since we're in kind of a miscellaneous category here, is that I -- I would like to remind the Board and remind the board staff as well that receiving waters have problems but they're not all necessarily caused by or is the responsibility of the MS4s. We hear about when it rains and there's a lot of bacteria at the beach, that doesn't mean that it's just the MS4s who need to be responsible for fixing that program. We certainly have a role, we have a big role, but there's a lot of other discharges out there in each one of these watersheds and should be part of

solutions as well. Thank you.

MS. LACARRA: Chairman and board members, good afternoon. My name is Rosanna Lacarra. I'm representing the San Diego co-permittees. I want to talk about the non-stormwater discharges which was the first item that Wayne addressed this afternoon. The new language in the permit classifies numerous groundwater discharges to be MS4 as illegal discharges. Even if no contamination of pollutants is present, and that lies to contaminated pump groundwater and as he mentioned, foundation drains and footings drains.

In contrast, the 2007 permit language, which is in Provision B of order R920007-0001, allowed the co-permittees and the regional board to either prohibit a discharge category or develop the implementation of an appropriate control measures to reduce the discharge of pollutant to the MEP. If it identified the discharge as a significant source of pollutants, we think this is a more appropriate approach. Otherwise, it will be really difficult, as Mr. Morales tried to clarify how do we distinguish these types of discharges.

It goes back to whether it's a source

of pollutant and not necessarily where the pipe is located from where this is being discharged. That's going to be really difficult for all the co-permittees to discern from every little weak hold or discharge from these groundwater discharge foot drain areas. So we recommend a clearer language, preferably from the 2007 permit. The existing language which would allow us to determine which discharges need provision, and we can incorporate actually this and roll it into our WQIPs which would be a better way to address it. If the problem is in the watershed from these footings and other types of groundwater discharges, then we can make it a source of pollution and go about it that way as opposed to making it a one size fits all for the entire region. Thank you.

MR. EVANS: Good afternoon. I'm Bryn Evans. I'm representing Industrial Environment Association. IEA was formed in 1983 and promotes responsible cost-effective environmental laws and regulations. They facilitate environmental compliance among the members and provide education for the community at large.

And I got a couple technical issues to discuss with you. Going back to the one size fits

all approach, with respect to the monitoring framework within the permit, IEA generally supports the monitoring approach that's strategic, question-driven and cost effective. We recognize that there is more work to be done in that regard, and the co-permittees are working with the regional board staff and others to make sure that the monitoring approach that ultimately gets incorporated into this permit is both cost-effective and effective.

Second key point goes to the non-stormwater discharges. And this was a key point that was made during the focus workshop process. IEA supports the clarifying language that the regional board staff incorporated that clarifies that MPD -- permitted discharges are not illicit, are not prohibited under the permit, but thank you for that.

But another point to be made is that firefighting discharges, nonemergency firefighting discharges are currently considered illicit discharges in the permit. There is building fires suppression maintenance specifically has been and can be treated with BMPs such that they're not a significant source of pollutants, so we recommend

-- IEA recommends retaining the existing authorization when co-permittees require the use of appropriate BMPs.

And then finally, I hesitate to bring this back up, but I didn't come up at the time hydromodification portion for fear of talking out of turn. The hydromodification requirements, IEA is a little disappointed to some extent that the recently-approved HMP permitting process. As we heard earlier, the HMP was painstakingly developed at great costs by the co-permittees several years ago and hasn't been fully evaluated.

So at a minimum, IEA recommends that the exemptions return for the highly urban watershed discharges to concrete line channels and abatement group, and also has some deep concern that the alternative compliance strategies are neither logistically or economically feasible. With that, I have made my comments. Thank you.

MR. STRAWN: Questions? Comments? It's my inclination it's too late to start cost. It's going to be another hour. Staff presentation.

MR. GIBSON: That's the inclination that I hope the whole Board would consider. The alternative is we would have to continue this, set

those issues aside. That would be your discretion.

MR. STRAWN: I understand. And at least one other board members expressed a concern at 5 o'clock was -- was kind of an issue. I'm more than willing to go forward to that time, but not if we're going to start off on another hour-long briefing.

MR. CHU: We -- Lori Walsh will be doing the presentation on the cost questions and at least during our practice, it only took about ten minutes. Unless you have a lot of questions in between, so it should take less tan 15 minutes.

MR. ABARBANEL: No pressure at all.

MS. WALSH: I'd like to do it, usually third batter is the pressure issue.

My name is Lori Walsh, an engineer on your staff, and I prepared the responses to the cost questions. The co-permittees are here also in case you have any detail questions because they're concerning current expenditures and estimated future cost of economic income. I took a summary research review of the existing documents that are out there, plus some studies to go ahead and put together the numbers for you today.

We're going to start with question

number 3. This was made by Board Member Morales, asking about what the co-permittees already spent, what they already spent and breakdown of costs and time frame. To do that, I put together the table that you have in supporting Document 6. It shows you what the San Diego County co-permittees spend, the Orange County co-permittees spend each year to run their stormwater program. It's upwards of 165 million dollars. It does not include Riverside County, which we don't have their annual report yet. We should get that October of this year. You can see all those numbers there. That's why I did that. Okay.

MR. ABARBANEL: Twenty years ago, just a guess, how much did this same group that municipalities and so forth, spend?

MS. WALSH: Twenty years ago?

MR. ABARBANEL: Just picking a number --

MS. WALSH: Yeah, we didn't have the stormwater permit then, so obviously zero. But they might argue with me.

MR. ABARBANEL: Do you think that spending this money has improved water quality in the Region 9?

MS. WALSH: I believe it has, but I believe

we have more to go.

MR. ABARBANEL: I didn't say we were finished. I want to whether --

MS. WALSH: I do think we have made improvement in water quality.

MR. ABARBANEL: Mr. Roberts came before us last month. He was appalled that we might have to spend two billion dollars over 20 years. This is 3.3 billion dollars over 20 years, and guess what? It's happening.

MS. WALSH: Okay. So Mr. Abarbanel, you made that comment about the two to four billion dollars over 20 years and putting some context -- I would like to put some context into those numbers first and then we'll -- I'll let you know what they spend it on, what they estimate they're going to spend it on. So two to four billion dollars is an estimated cost of compliance with the cost of the beaches and creeks TMDL that you have heard about all day today, and it would be paid for by the effective co-permittees in those watersheds.

And I put together a table, that's supporting Document 7 that outlines those numbers. I pulled those numbers from their comprehensive load reduction plans that the co-permittees

submitted to me. That's exactly where those numbers came from. And it does list what they're going to spend it on and you heard best what they would spend on it on from Ken from Geosyntec. He gave you the most context about the regional structural BMP is distributed BMPs and nonstructural BMPs. And he gave you examples for those. So that's what these dollars would be spent on.

The co-permittees also provided you supporting Document 8. It's a letter. Their range for bacteria TMDL cost, between 144- to 272 million dollars per year. They did the math. They divided that 200 by 20 years. Their numbers are a little different than mine. I come up with 130 million, 2.5, but we won't split millions of dollars. And I'm sure they can tell you what the difference in those numbers are because I'm not sure what they are.

What I want to -- I'm going to make two notes. In the comprehensive load reduction plan, there was a particular paragraph that gave some context to the estimates and the -- and the integrity -- well, not the integrity, but the precision of those numbers. I always get that

screwed up with accuracy. So in the comprehensive load reduction plan, it states that, "Cost opinions are presented as an aide for decision makers and contain considerable uncertainties, given the interested and adaptive nature of the implementation plan and the many variables associated with the projects and programs, the budget forecast, especially for later phases on order of magnitude estimates."

They are in order of magnitude estimates, so the -- I'll use their document. The 144- to 272 million dollars a year are on order of magnitude estimates, so that range is like between 14.4 million on the low end and 1.4 billion on the high end. That's an enormous stretch between those two and are subject to change based on BMP effectiveness and assessment.

And really, Ken was talking to this about when they're out in there 15, 16, 17 year 20, they really don't know where they're going to be out there and what the BMPs are going to look like. That's why those numbers, that range is so wide. And briefly again, when they bring up this range of costs for compliance with the TMDL, during our permit process, it's really the wrong venue to do

that because these ranges of costs were considered at the time that the TMDL was adopted. And the Board at that time considered cost in determining the TMDL.

Our last question was asked by Henry, and Mr. Abarbanel is very good at asking the "not" question. So we did it for "not" implementing. What does it cost if we're not implementing the provisions of the permit. And you gave a couple of examples. It was particular to beach closures and it'll help, so I'll address those. And then I have a couple of other points after that. Make sure.

Cost of not implementing provisions of our order are also very significant. And in other words, it's basically what the economic impact, the not placing these controls on pollutants that make their way down in receiving waters during dry weather and wet weather. You've heard the talk about the bacteria TMDL and the requirements. California had in 2011 experienced 5,794 beach closings and advisories and there was a steady -- a study in 2006. Ran a hypothetical for Huntington Beach, if it was closed due to poor water quality, the losses in beach-related spending would be on the order of $100,000 for one day, 3.5 million for

the month and nine million dollars if the beach was closed for three months during a summer season.

So the dollars are extremely high, and we all know how we like to enjoy our beaches here in Southern California. And this is just an example of one beach. If you apply this example to all the beaches in San Diego, the economic impact is just considerable.

So we're going to move on to tourism. San Diego receives 31 million visitors a year and our tourism industry employs more than 160,000 San Diegans, and those visitors that come to San Diego like to spend money. They spend 7.5 billion dollars a year in San Diego. And recently -- as recently as a couple of weeks ago, December 1st -- ten days ago, there was an article in the San Diego Union Tribune that states that there's airliners now that can fly direct from Japan and London, and the article states that it translates to more than 240,000 paying passengers since June of 2011. And an estimated financial bonanza to the San Diego region of 111 million dollars. So there's more and more people going to come to our beautiful San Diego and experience our Rec 1 beneficial uses and all the other fun stuff that we have here.

And illness was another example that Mr. Abarbanel asked. And there was a specific study to the LA County and Orange County and it's stated that it costs in excess of up to 100 -- up to 51 million dollars per year to deal with the gastrointestinal illnesses that people have resulting from swimming in bacteria-contaminated beach water, so it's directly relatable to the bacteria TMDL we have been talking about all day.

And if those costs can increase to up 176 million dollars per year, if you factor in the non-market costs which are defined in the study as the willingness to pay not to get sick, so that is a whole lot of airborne and echinacea.

Not only -- I wanted to add two more factors, just to put into perspective in addition to the tourism and the illness, is that I found some additional numbers from the Army Corps of Engineers and a study that was done from one of the insurance agencies. It's not a company. It was -- actually, I -- I'm forgetting the exact one now, but one of the governing agency's for the insurance body that stated between 100 and 300 million dollars a year was paid out in insurance claims as a result of flooding, which is directly related to

our hydromodification provision.

And that was particular to San Diego County. It's very difficult to find County-specific numbers, so I wanted to make mention of that. And it was also that the Army -- excuse me -- yeah, Army Corps of Engineers spends -- spent I think last year, 180 million dollars nationally to dredge areas of polluted fill that came down from -- that were either impacted from a pollution source or due to runoff and depositing into our receiving water bodies.

And the Fish and Wildlife Service, Mr. Strawn said that 38 billion dollars a year nationally is spent -- is the impact that would be associated with harm to sports fishing, so the numbers are enormous. And if I actually had to add them all up, I don't even know if we have a unit to describe what that dollar amount would be, but I certainly do think it justifies the Clean Water Act's requirements to remove pollutants and stormwater to maximum extent practicable and to eliminate nature non-stormwater discharge. So I'm going to leave you with that. I can take questions and co-permittees are here, too.

MR. STRAWN: Some comments on cost from --

MR. MORALES: Before you all come up to talk about costs, I just want to say one thing. Please, for my benefit, don't repeat what we heard in November that it's going to cost two to four billion over 20 years because you know you all are spending that anyway. So I'll take it as a given that I understand you don't want to spend any money.

MR. SNYDER: My name is Todd Snyder with the San Diego County speaking for the co-permittees of San Diego County. First of all, beaches are valuable. We absolutely agree that they bring in tourism dollars and there are costs associated with people getting sick when they do get sick.

However, I think a lot of data you just saw is not specific to the question that was asked. The question that was asked was what are the costs of not implementing the permit, in particular, the bacteria TMDL. There has been no study that has been done on that. I think a lot of the figures you just saw are statewide, California-wide data. You can't compare that to local implementation costs. Beach tourism, as we know, is not water quality. There's lots of things that draw people

to San Diego.

And you know, looking at closure days, we don't close our beaches after rain events. We issue advisories. So all of these numbers have to be taken into context and if a study were to be done on what the economic benefits of implementing bacteria TMDL are, it has to take into account what's already being done, what's been done in the past. So we agree with the regional board staff estimate that San Diego County co-permittees spend about 119 million dollars per year. We think water quality absolutely has improved. If you look at that number over the last five years during summer dry and winter dry weather, our -- we have over 90 percent of beaches with A grades.

Unfortunately A grades don't get you in compliance with the TDML. So that's part of the problem in using those numbers. Looking at the current program costs, as a whole, the 21 San Diego County co-permittees spend about 119 million per year. Here's an example of how the costs break down for one of our co-permittees, City of San Diego. They spend about 54 million per year.

And I think the point that we want to make on costs is that there was some confusion of

the November 13th hearing. Our estimate is about 2.6 to 4.9 billion dollars over 20 years. Those are additional incremental costs to what we're spending now, and we do have some more detail that I would like Ken Susilo from Geosyntec to provide because his firm developed a lot of the detail cost estimates for our plans.

MR. SUSILO: Ken Susilo, Geosyntec. I want to add a little bit more to this discussion, a little bit more detail about how these costs were developed. In a broad sense, we have had basic families of nonstructural and structural and some special studies costs and the order -- the estimates we came up were about 11 percent for nonstructural BMPs, and these nonstructural BMPs, I touched on a little bit earlier. Sanitory sewer leaks, source identification, homeless generated waste, watershed irrigation runoff, pet waste, looking at commercial industrial targets, LID incentives, street sweeping, enhancing street sweeping on site, wastewater treatment systems, those types of things go to the nonstructural bucket.

When we look at structural BMPs, I want to give you some examples from the San Diego River

watershed clerk that was discussed earlier. For that example, again, nonstructural program, but nine regional BMP projects, these are the larger scale ones. 247 catchment areas that would have distributed BMP retrofit requirement that would be like Green Streets or smaller scale types of implementation.

Three restoration projects. We talked about channel restoration earlier. Those are included in these estimates as well. And one of the reasons there is some uncertainty is, in looking at what our targets are, we would anticipate there's a possibility of private property acquisition, so that's also included in the uncertainty and some costs as we look at structural BMP, as well as dry weather diversion system.

I just wanted to share some of those breakdowns in terms of what the costs were. The costs are additive. They're based on robust BMP modeling, so technical water quality monitoring -- and how does it correspond as a target. The important thing to emphasize here is that we -- it's based on managing loads, so of a different types we talked about flexibility. This is a

load-based assessment here and load-based cost estimate.

If we go to concentrations, those cost estimates go up, and just for context, some of the other estimates that we're presenting here are within the range of what regional board has presented. I think in their estimates for structural BMP only for watershed was 500,000 to 7.3 billion dollars, so this is, you know, a much tighter -- well, better define "range," but there is still some uncertainty there and that's reflected in these estimates.

MR. MORALES: Obviously, check with your clients, but I appreciate the explanation that this is additive, but to the extent possible if you have a cost estimate with any summaries of the takeoffs that you used or that you developed to arrive at these figures, if that could be made available to us, that I would appreciate just looking at that information because like I said earlier, this is not the Internet, but I'd like to see those numbers.

MR. SUSILO: I believe a lot of that is in the clerk's, but --

MR. MORALES: Specifically it sounds to me

like you came up with a cost estimate for how you perceived the implementation of the MS4 requirements will add up at the end of day. And to have -- knowing that, I will have broken it down into categories and very likely line items that come up with general numbers.

MR. SUSILO: Just so we're clear, there's more detail on the larger regional types of projects. One of the reasons why I framed the distributed BMP in the context of catchment areas is that we had to take typicals and come up with some typical costs and those were replicated. So there's a little bit of difference in terms of structural BMP implementation, but for the regional ones specific sites were identified and conceptual level concepts of what those projects would be, and then the cost breakdown for those estimates were provided. Questions? Thank you.

MS. SKORPANICH: Good afternoon. Again, Mary Anne Skorpanich on behalf of the County of Orange. I wanted to do two things, one of which was to add a little context to some of the numbers that Ms. Walsh presented. She showed a study that was done for Huntington Beach, estimating what the cost would be if the beach were closed. But I will

point out that the beaches are only closed when there is sewage, and so we're not talking about your typical, you know, dry weather runoff or even stormwater runoff. We're talking about sewage. And certainly a closure is when the public is prohibited from going in the water at all, even into the ankle.

So just to put that in context, it might cost a lot for a closure, but we're not going to prevent closures by anything in the (inaudible).

Secondly, I will point out that to your comment earlier when the board members were saying well, what were we spending 20 years ago. San Diego and certainly Orange County were enjoying abundant tourism and abundant tourist dollars coming into our local economy. More than 20 years before we had the MPDS program, and so we can't say it's going to cost, you know, all that revenue that comes in from tourism, all those jobs if we rachet up or down certain requirements in the MPDS permit. I think we certainly see the public respond to nice beaches and good water quality, but it certainly has not ever kept tourism away from this area.

Thirdly, to the point on flood control that Ms. Walsh made, our flood control engineers

are actually concerned about the hydromodification requirements because they would change the discharge from these BMPs and you would see water flowing much longer after a storm than you would even from the undeveloped conditions.

If you think about a site that's developed and it's draining through a drinking straw, relatively speaking, it's going to be very slow when it's draining out of there and it's draining much longer. So we actually have a flood control concern on the other side.

The 2.4 billion dollar number that San Diego came up with was just for the bacteria TMDL, so we're talking about doubling the cost that we currently have, the current rate of spending, that all of the -- all of permittees are spending on the overall MPDS program, so I also wanted to put that in context.

In our handouts that we provided to you, we listed all the bacteria BMPs that we have implemented in the Aliso Creek watershed, a small watershed only 34 square miles. Also, it comes to about 20 million dollars. We spent another couple million dollars a year as permittees operating and maintaining those, that's for Aliso Creek.

Tourists aren't coming here. People aren't really swimming in the creek. Most the time, the flows are so low that they're really only ankle depth, so you're not getting the same kind of exposure as if you were a surfer or you were a swimmer in the ocean where you have that true risk of Rec 1 risk of ingesting that water and getting sick from it.

And then just one final comment about uncertainty. We first got a directive on Aliso Creek to address bacteria. We were spending over a million dollars a year doing monitoring in that watershed of the creek, and we began to install these BMPs and put in an ultraviolet treatment system in right around the watershed. And we found that it did a great job of 99 percent removal or 99 percent plus removal of bacteria, but then it got discharged back into the creek and those bacteria regrow and within a couple 100 feet downstream, there was zero effect from having that bacteria staying there.

So we thought we learned a great lesson and then the next time we were going to do one of those, we put it at Poche Beach in San Clemente and we have it immediately upstream of the sandy beach and we thought well, this is really going to be

effective because we're going to divert all of the flow from the flood control channel, treat it, kill the bacteria and discharge it back. And it's still on the beach bumper list for bacteria water quality because of what's happening downstream of our treatment system.

So that's the kind of uncertainty that we just kind of draw a more concrete example of the uncertainty. You think okay, well, I'm going to spend four million dollars and build this system and, you know, spend a quarter of a million dollars just operating and maintaining that, and we're getting zero benefit from that because of other factors that are taking place downstream that have nothing to do with discharge from the land. So thank you for your time.

MS. WITKOWSKI: Jill Witkowski, San Diego Coastkeeper, also here to speaking on behalf of Julia Chunn-Heer from Surfrider Foundation, she had to leave, and also Olivia Borac from Coastal Environmental Rights Association who also had to leave. Just a quick note on who has spoken today and who has not spoken today. You have heard a lot from co-permittees and business interests and you haven't heard from environmental, but that doesn't

mean that we don't care. We represent thousands of people who couldn't take time off, but they entrust us with being here to advocate on their behalf.

Fortunately, the cost of not implementing the tentative order, I can run through a lot this because I have the exact same numbers as Ms. Walsh, and I actually have two handouts, one of which is the Pendleton document, research document that she had cited and another one is just health effects of swimming in ocean water contaminated by storm drain runoff.

So I will pass these around and I also have electronic copies so it can go on the website. So this is the same numbers as Lori Walsh has spoke has broken out for Orange County. So it's the numbers she presented was Orange County and L.A. County. This is just Orange County, so the direct costs from gastrointestinal illness is 6.7, 16 million, so over 20 years for looking for comparison and the value of not getting sick was 56 million to 136 million projected out for 20 years as well.

This is the same numbers that Lori pitched, but I also have the citation there at the bottom if you're interested in looking it up

yourself. One of the things I want respond about, we only close beaches for sewage spills, it's a really interesting point. What would the impact of our stormwater advisory be if we actually posted when the beach was advised to be closed? We don't do it because we advise that every single beach through San Diego County whenever there's significant rainfall. We don't go the hotels and tell people hey, don't go in the water. You don't -- we don't know if there's an advisory unless you know there's an advisory. So it's a really important question of what would happen if we actually told people that there was an advisory.

Also, there was a point raised that a lot of these numbers aren't San Diego numbers, and I think that's an excellent point. San Diego Coastkeeper and California Coastkeeper lines are currently trying to get an economist to do a study here in San Diego about these numbers, about illnesses and about economic impact from stormwater so we have better information for our decision making.

The breakdown and time frame of costs, I would like to speak to TMDL. TMDL and the comprehensive load reduction plan, San Diego River

and Chollas Creek, just one point about the TMDL that I didn't raise during the TMDL section, but there's a point made that the bacteria that we're looking for comes from warm-blooded creatures and not necessarily humans, and it's bacteria from people that makes us sick.

There's an answer to this as long as we're going to revisit the TMDL technology that allows us to do rapid testing to look for the type of bacteria that would make us sick. San Diego Coastkeeper has been trying to borrow a machine from squirp (phonetic) and we have been looking for partners and unfortunately, some of local agencies haven't been excited about getting it going. But that's something that can be done to address some of these issues once we start looking at TMDL again, which I agree with Wayne and Lori as a team here that this actually isn't the right place for it.

As long as we're talking about costs, so from the San Diego River comprehensive load reduction plan, which I'm guessing you probably didn't have a chance to look at because it's hundreds of pages, so these are some of the same things that Lori spoke that the cost opinions were

contained considerable uncertainties and the order magnitude estimates and cost estimates should be considered for planning level only, and there are the citations of the clerks, so take this with a grain of salt.

So the San Diego River cost range was huge, includes the private property BMP, which the gentleman from Geosyntec mentioned, but if you look at how big those private property BMPs, 216 million. So we're looking at a lower range of cost, that's a huge chunk. And there's actually a footnote that says due to optional strategy and they're only needed if they're needed to make the load reduction target.

So if you look, there's a chart in this comprehensive load reduction plan that says breaks out private party BMPs, nonstructural, structural and actually for the lower cost, this optional strategy is actually the most extensive element of the program. Without the private property BMPs, it gets down to 374 million over 20 years. And that's the clerk citation.

Also, thinking about not using San Diego numbers, so the land costs for private party BMPs were based on L.A. County land prices

from 2008, discounted to 2005 and assume it would be the same in San Diego as 2011. So we're playing with a lot of numbers here. I don't know why we couldn't use the San Diego-based numbers from 2011 or 2012, but that's how those numbers were calculated.

Also, structural BMP costs were used with this tool that was developed for L.A. in conjunction with the bay and others, and there was a cost error between 2.0 and 4.0, which adds in another chunk of uncertainty.

Also, nonstructural BMP costs which are outreach and that type of thing, were largely based on number of staff hours which the co-permittees estimated. They acknowledge that there was a large potential savings of volunteers reviews. So $100 a year for pest waste versus $100 a month if the co-permittees did them themselves, but we were -- Coastkeeper was never asked; Surfrider was never asked can you do a program, how much would it cost and what kind of difference could you make. So I think that's another problem with the cost estimates.

For the Chollas watershed, that's not only bacteria, but metals which were supposed to

have already been completed or implemented and they weren't given a range. They were just one number, so the cost when you look at the breakdown, includes things like landscape practices and outreach. Well, landscape practices, so overwatering, we were thinking about it. That's something we're talking about when we look at water supply and conservation, and the City of San Diego already has a big chunk of money that says we're going to do all these conservation practices, so to what extent are we double-counting these?

We're going to say -- we're going to put it all in the stormwater column when it really benefits multiple parts of the city program. Same thing with homelessness programs. Right now, the whole stormwater program has developed how we deal with homelessness in San Diego River because it does contribute to bacteria, but as a stormwater program who you want to develop -- be developing this type of program.

I think there are other elements of the City of San Diego and other environmental groups and homelessness targeted groups that would be able to help and contribute so that these costs really aren't as big as they seem.

And we already talked about redevelopment, so Im done. Thank you.

MR. STRAWN: We gave you a little extra time because you're representing several groups. We know that. The rest of you, don't expect so much.

MR. KLEIS: Drew Kleis again, program manager with the City of San Diego. I just wanted to address the issue of cost again and clarify. And Board Member Morales, I think your comment about getting details of the cost estimates on the TMDL is a good idea. We'll get that to you. We have that. We're using it to develop our budgets, and I think it should be, you know, something that you see.

I think the point to emphasize is that it is addictive, so to the example about the nine point six million dollars for landscape practices, I oversee that and it's addictive, so we're not double counting expenses that the Water Department is spending, it's on top of what we're already doing. Like we have a rebate program for rain barrels that would cover costs of the next 18 years to expand that program.

To the extent that we can get double

benefits, yeah, that's great. We're always looking for opportunities -- in fact, our rebate program is combined with our water department. Just to clarify, I don't have the tables now, we'll get those to you, the details on the cost breakdown. 86 percent of the cost goes toward structural BMPs 11 percent is non-structural and about three percent is going to go to special studies and monitoring. With all the assumptions of uncertainty, you know, noted just to give you a little bit more context. Obviously the bulk is that because it needs to address wet weather. It's a part to tackle.

I want to close with some positive comments here, constructive comments relating to costs. It's great we had this discussion. I think it would be better over beers, personally, because it's kind of one of those things -- I know sometimes you ask us to go back in the back room and work things out, if you do, could you ask us to do it at a place that serves beers, because I personally need one right now.

To a serious point, the staff here, I have a lot respect for what they have done over the last -- it's really been a year and a half, they

met with us before they released the administrative draft. I feel like I've been heard. I feel like I've learn a lot from board staff. I've learned a lot from the other participants. And I think they have engendered a culture change that -- that's positive. There's tension sometimes, of course, but I think there's a lot of agreement and there was a lot of changes that were made on our request. So I hope the discussion today, because we're focusing on the remaining issues, which are big issues, I hope that doesn't overshadow the fact that a vast majority of our comments were listened to or were heard because we were trying to be constructive as well and they heard that. So there's a lot of creativity. There is a lot of brain power on that team right there. And I don't know what you can do for recognition. I can't even give my staff candy bars or anything anymore, but they have earned it.

MS. HEMZE: Good afternoon, I'm Leah Hemze, representing the San Diego Regional Chamber of Commerce and I'm neither an engineer, lawyer or budget analyst, so my comments will be very short.

The Chamber represents more than 2900 member businesses and there are approximately

350,000 employees. The Chamber and its members, who both live and work in San Diego, recognize the importance of clean, safe water to the region. As staff just pointed out a moment ago there are many economic benefits associated with our clean beaches and water.

It is important, however, that we use our limited resources wisely and focus on practical outcomes. We recognize the importance of holding individuals, businesses and government accountable, but it is critical that accountability measures can be reasonably achieved and will likely have a significant and positive impact. Because of the these concerns we join the co-permittees and urge you to adopt final permit language that is evidence based and both environmentally and economically sustainable. Thank you.

MR. McSWEENEY: I hope to end this on a good note. Two things. When I sat down you mentioned about the workshops we held. It was beneficial -- I think it would have been even more beneficial if we had a longer time frame to work through, but I just want to let you know that what I've been working with with, Jill we have talked to co-permittees, part of the problem with the F word,

the fear, is that they're looking at increased costs and where do they get the money. And, you know, local government is somewhat hamstrung in the ability to just charge for something because there's Prop 218.

One of the things that my industry is doing, I actually have a conference call tomorrow with Sacramento with my statewide organization. We are trying to explore some options to come up with broader based funding so that the co-permittees have some additional resources to be able to do these kinds of things, because if you look to just the development industry, if you looked at the entire county pie chart, there's a little sliver each year that gets developed or redeveloped. We'll never generate enough money. So one of the things to try and -- I look at things personally as challenges to be solved, not just how do we get around it and deal with it two years down the road or five years down the road. My background is solving problems. And so I see that one of the big problems is money. And nobody -- we talked about cost, but we didn't talk about revenue. So that's one of the things that we're hoping to go do is try and think of different solutions to be able to, not

just for my industry, but for the society as a whole, to try to figure out a way to solve it.

So I'm hoping that maybe at one of the future meetings we'll have made some progress and I'll be able to report back to you that we think we have a strategy here that -- that will work and this is how we can get it to the legislature and provide a funding stream dedicated to solve this problem. Thank you.

MR. STRAWN: Comments from the board?

MR. GIBSON: It's been a very long day, but I'll quote Benjamin Franklin, if you'll indulge me. "When the well is dry we know the worth of water," circa 1746.

So much easier to calculate the costs of things we have to do than it is to calculate the costs of what might have been if we had not done them. And although it's true that tourist have been coming to San Diego for more than 20 years, it's also true we have more people living in the San Diego region now than we did 20 years ago. And some of what we have done has been just to keep the brakes on from making things get a lot worse than they otherwise might have been. And I think we can be grateful for that.

Just a couple of thoughts I wanted to share. One is that I heard a lot about the risks to humans from non-human sources of bacterial indicators, but I didn't hear anything about the risk to non-humans and part of our charge is protect the marine beneficial use for example. And an example of where this has been played out is in region three in the central coast where see otters have been effected from stormwater runoff. Not from human pathogens, but from cat pathogens, toxoplasma gondii, a parasite, has effected the recovery of those species up there. So one wonders what is the effect to seals or sea lions from bacterial indicators. But more to the point bacterial indicators being an indicator of pathogens, yes. They're also an indicator of all the other stuff that's in the soup; the trash, the nutrients, the insecticides, the pesticides. While we're spending a lot of time talking about the bacterial levels, there's a lot more we need to be concerned about.

We talked during the previous workshop about one way in which we learned lessons and we incorporate those lessons in how we do things, and Wayne Chu referred to the fail early, fail often

mode. This permit should not be seen as an exercise in failure, it should be seen as an opportunity to learn.

So where we are now is we have some serious costs and we've lost some flexibility. The approach that we want to take now with the water quality improvement plan, incrementally at least, is intended to obviate the need for those TMDLs to get to that desirable outcome without going through those efforts.

EPA I think is intrigued with our approach. I think they want to see results from it. They are also doubting Thomas', not to jump to the weekend yet, but they're skeptical. They want to see some backstops. They have actually required to us put back in some of the measures that Claudio Padres was referring to where one size fits all. But I think in the fullness of time, if this water quality improvement plan approach is truly embraced and worked we might be able to get to that point where we can pull back some of the specificity of the inspection requirements, for example, throughout every watershed, throughout every issue. There is a lot that I want to cover but it has been a very long day and I wanted to emphasize, as a

closing, again, I think I need a beer too, is that we have really tried to look at a different approach both in terms of content and process and I think this workshop exemplifies that. The fact that we talked about three areas rather than three dozen, rather than the entire permit. So those are the thoughts I would like to leave the board with today unless there are any particular questions that you would like to have us address before we close today.

MR. STRAWN: One thought, because I tend to lose my place in this book, I'm hoping that the next time we see the tentative order it will be -- we'll be able to see which of these changes that we've heard about over the last two extended meetings have been incorporated. And -- in other words, a red-lined version to make it clear to us that -- where we've compromised.

And with that, unless there's any other comments, I'll say Happy New Year. We will see you in February and we are adjourned. Thank you all very much for sticking with us.

(Whereupon the meeting was adjourned at 4:52 p.m.)

* * *

I, Johnell M. Gallivan, Certified Shorthand Reporter for the State of California, do hereby certify:

That the meeting was taken by me in machine shorthand and later transcribed into typewriting, under my direction, and that the foregoing contains a true record of the meeting.

Dated: This day of , 2013, at San Diego, California

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Johnell M. Gallivan

CSR No. 10505