

STATE WATER RESOURCES CONTROL BOARD

CONSIDERATION OF A RESOLUTION TO ADOPT THE
WATER QUALITY CONTROL POLICY FOR DEVELOPING CALIFORNIA'S
CLEAN WATER ACT SECTION 303(d) LIST

WEDNESDAY, SEPTEMBER 8, 2004
1:00 P.M.

JOE SERNA CAL/EPA BUILDING
COASTAL HEARING ROOM
SACRAMENTO, CALIFORNIA

ORIGINAL

REPORTED BY:

ESTHER F. SCHWARTZ
CSR NO. 1564

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ATTENDEES

STATE WATER RESOURCES CONTROL BOARD:

ARTHUR G. BAGGETT, JR., CHAIR
PETER SILVA
GARY M. CARLTON
NANCY SUTLEY

STAFF:

CELESTE CANTU
THOMAS HOWARD
CRAIG J. WILSON

COUNSEL:

CRAIG M. WILSON

HEARING PARTICIPANTS:

DAVID SMITH
DONNA CHEN
CONNER EVERTS
SARAH NEWKIRK
LEO O'BRIEN
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HEATHER LAMBERSON
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BILL THOMAS
LAURA GIUDICI MILLS

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1 SACRAMENTO, CALIFORNIA

2 SEPTEMBER 8, 2004, 1:15 P.M.

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4 CHAIRMAN BAGGETT: Good afternoon. We are
5 back for the last item of today's workshop, Item 10,
6 303(d) listing guidance.

7 Craig.

8 MR. CRAIG J. WILSON: Good afternoon,
9 Chairman, Members of the Board. My name is Craig J.
10 Wilson. I'm Chief of the TMDL Listing Unit in the
11 Division of Water Quality.

12 The next item before the Board is consideration of
13 a resolution to adopt the Water Quality Control Policy for
14 developing California's Clean Water Act, Section 303(d)
15 list. In my presentation I would like to touch on just a
16 couple of points. I'm going to give the briefest of brief
17 overviews of the policy, and then give a little --

18 Do you want the 200-page version? It could take a
19 couple of hours, Art. We could go that way.

20 But the second part I would like to talk about is
21 two issues that have been brought up and give a very brief
22 overview of our feedback on those issues.

23 The proposed policy set decision rules to be used
24 to place waters on or remove waters from the Section
25 303(d) list. And that list is the list of water segments

1 where water quality standards are not attained and a TMDL,
2 or total maximum daily load, is needed to address the
3 exceedance. The policy provides a set of fast, efficient
4 rules of thumb to address all data and information for a
5 variety of lines of evidence. The fundamental approach is
6 based on the concept of weight of evidence. The approach
7 requires pulling together all available lines of evidence
8 to make decisions on listing status.

9 The proposed process is two steps. The first is to
10 use the rules to make decisions where data and information
11 clearly show standards are exceeded. And the second part
12 is to use a situation specific weight of evidence factor,
13 when data and information are conflicting or the story is
14 less clear.

15 To date the State Board has held two public
16 hearings, received 127 comments/submittals on a previous
17 draft that was released last December. The staff has
18 responded to about 1,700 comments, and we have made
19 several changes in response to those comments. The most
20 recent version of the policy was released on July 22. So
21 far we've received about 22 comment letters on the policy.

22 Let me turn now to the two issues I would like to
23 discuss. The first one is related to the use of
24 statistics and the second one is related to weight of
25 evidence. Statistics is the science of decision-making in

1 the face of uncertainty. Needless to say, there are huge
2 uncertainties in every aspect of deciding if water quality
3 standards are exceeded. Statistics can be used to
4 describe data or can serve to make generalizations about
5 the world. There are two types of statistics. One is
6 called descriptive and the other one is called inference.

7 Descriptive statistics is treating data to
8 summarize or describe some important feature without
9 attempting to infer anything that goes beyond the data.
10 These kinds of statistics are used widely, and many of the
11 commenters are recommending that the State Board use them
12 for 303(d) listing purposes. It is descriptive to say
13 that two hits out of three samples show that, for a small
14 data set, the standard was exceeded. This approach is
15 used widely in compliance monitoring, in determining if
16 effluent limits are exceeded, because we can look back and
17 see the universe of samples and decide if those values are
18 exceeded.

19 For the 303(d) listing process it is different. We
20 have to use data that was collected in the past; that is
21 all that is available to us. We are trying to infer
22 something into the future, at least into the present, and
23 that is the problem exists now. To do this kind of
24 analysis, it would be nice to have large numbers of
25 samples and a variety of parameters. Unfortunately, we

1 are limited by the time, cost and impossibility in many
2 cases of getting more data. We are, quite frankly,
3 limited to the information that is readily available, that
4 is out there and submitted to us and we can get our hands
5 on.

6 Since generalizations of any kind lie outside the
7 scope of descriptive statistics, we are thus led to the
8 use of inferences to identify water quality problems. It
9 must be understood, of course, when we make a statistical
10 inference that is a generalization that goes beyond the
11 limits of the data, we must proceed with caution. We must
12 decide carefully how far we can go in generalizing from a
13 given set of data, whether the generalizations are
14 reasonable, whether we need more information, for example.
15 The most important problem of statistical inference,
16 though, is to appraise the risk to which we are exposed by
17 making generalizations from sample data, the probabilities
18 of making wrong decisions or incorrect predictions, and
19 the chances of obtaining estimates which do not lie within
20 permissible limits of error.

21 These various possibilities may seem somewhat
22 confusing to some frightening and to many that have
23 commented they are not protective. But uncertainties in
24 evaluating data cannot be eliminated. Since these
25 uncertainties will always crop up, the Board has two

1 choices. You can ignore the uncertainties and just go
2 forward with whatever data, looking back, or you can
3 simply learn to live with the uncertainties.

4 We recommend facing these uncertainties head on. A
5 statistical approach provides a reasoned and transparent
6 tool for the first step in distinguishing between waters
7 that meet and do not meet water quality standards. The
8 major question that has been posed: Are water quality
9 standards changed by statistics? The short answer is no.
10 The provisions of standards are addressed in the first
11 step, and the evaluation process is laid out in this
12 policy. The magnitude, frequency and duration of
13 standards are addressed first and the determination is
14 made of whether the standards are met in that particular
15 instance.

16 So we ask the question: Are water quality
17 standards attained? We use the provisions of the
18 standards. Then all the yeses and noes to that question
19 go into the statistical analysis, and that's where the
20 weight is developed.

21 We are proposing to use a test that balances the
22 types of decision making errors so inferences can be made
23 on the status of water segments. This approach is well
24 justified from a scientific perspective. U.C. Berkeley
25 peer reviewers have found the original approach to have

1 merit. We have had recent feedback from a Cal Tech
2 scientist who strongly supports the use of this approach
3 as quite defensible.

4 So how does this all work? In practice how will we
5 go about implementing these provisions of the policy?

6 For most data sets it will be very clear if
7 conditions of listing are satisfied. This first step
8 essentially clears the deck, if you will. Most of the
9 decisions are going to be clear cut. We will have 25 of
10 50 samples. That is a clear listing situation. And the
11 approach that we are proposing will allow us, then, to
12 focus in on those listings where the story is less clear
13 or it's too close to call.

14 Many of the commenters have said that the policy is
15 not restrictive enough. Still others have said the policy
16 should make it more difficult to remove waters from the
17 list. Setting the acceptable errors where waters are
18 listed or delisted is purely a policy choice that needs to
19 be made by the State Board. We've provided values that
20 are justified. That is not to say that other values are
21 not possible. There are other values that are possible
22 and they are justifiable.

23 The second issue I want to touch on is weight of
24 evidence. I just have a few seconds longer.

25 The policy provides a mechanism to consider all

1 available data and information. Absolutely no information
2 will be excluded. Absolutely all data and information is
3 included in this process. Once the decks are cleared, as
4 I talked about before, once those easy listings are made,
5 if it is necessary to dig deeper into the evidence, the
6 policy provides for virtually an open-ended review of the
7 data and information available. General guidance is
8 provided in this regard. It is not specific because of
9 the variety of circumstances and data that could be
10 encountered.

11 With this flexibility comes the burden of
12 describing the rationale for using this method, however.
13 The policy calls for a situation specific weight of
14 evidence to be based on reason and reference to the
15 evidence that is available. There is a fear that this
16 approach is license to contravene the provisions of the
17 policy. It is not. The approach only provides a
18 mechanism to consider absolutely all data and information.

19 Many issues have been raised in the letters that
20 have been received. These are the only two I want to talk
21 about now. If during the workshop you would like
22 clarification on any aspect of the FED or the policy, I
23 will be here and be happy to respond. If you have any
24 questions now, I would be happy to take them.

25 MEMBER SUTLEY: I wanted to pursue this issue

1 with the standards themselves because I want to make sure
2 I understand the argument you are making. We have these
3 water quality standards and you're attempting to apply
4 this statistical method. You are trying to account for
5 uncertainty with respect to the data. But I guess my
6 question is whether the standards themselves account for
7 -- in some way account for uncertainty in the data; that
8 is, they are expressed as you said in terms of duration,
9 magnitude. So you have a limit and you have a way that it
10 is expressed so you know whether you are violating the
11 standards or not.

12 And my assumption is that part of the reason that
13 you express standards, both in terms or in terms of an
14 absolute limit less a number of exceedances over a time
15 period, is in some sense to take account of the
16 uncertainties with the data. So if there were no
17 uncertainties in the data, a single exceedance of a limit
18 would be a violation and would mean that you are exceeding
19 the -- you were violating the standards. But that is not
20 the way the standards are expressed. So I am having
21 trouble understanding why that in and of itself isn't the
22 way that you account for uncertainty in the data. And
23 that is a legislative act in a sense to set those
24 standards, rather than some statistical guess of whether
25 you want to incorporate data or not. I'm just having

1 trouble understanding how we aren't running into a problem
2 of doing -- of failing to do the thing that the Clean
3 Water Act directs us to do, which to list impaired water
4 bodies.

5 So help me understand this. I'm really having
6 trouble with it.

7 MR. CRAIG J. WILSON: Let me see if I can help
8 you with that.

9 CHAIRMAN BAGGETT: I have a similar, close
10 related question.

11 MR. CRAIG J. WILSON: The standards say what
12 they say, and they are very clear in what they say. With
13 unlimited monitoring information, with a complete
14 understanding of water quality in the state, we could make
15 listings on one exceedance of a never-to-be exceeded
16 value. We could do that because we would have an
17 understanding. The assumption that many people make is
18 that there is no uncertainty in any of these measurements.
19 This whole policy is not focused on the standard. We have
20 drawn a bright line between the standards and the data
21 that are available. We are focused on how good the sample
22 is, what is the weight of those samples with respect to
23 those standards.

24 EPA guidelines, guidance to the states, allows for
25 this kind of thing. They talk about these kinds of

1 errors. Because we are going from a situation of looking
2 descriptively in the past to these measurements to trying
3 to project them to some future condition.

4 CHAIRMAN BAGGETT: EPA's argument in their
5 comments, and I think in the comment letters, were that
6 CTR constituents require if there are two hits in a
7 three-year period, it is a violation.

8 MR. CRAIG J. WILSON: To me that answers the
9 question: Are our water quality standards attained?
10 Clearly, yes, in that circumstance. But it is one time.

11 CHAIRMAN BAGGETT: Even though it is a
12 violation of CTR, you are saying it is not necessarily
13 impairment because you only have two out of three years?

14 MR. CRAIG J. WILSON: I'm sorry this is such a
15 difficult concept. As those exceedances build up, we
16 become more confident that what we are seeing in the data
17 that was collected in the past is actually what is going
18 on in the present and is characteristic of that water
19 body.

20 CHAIRMAN BAGGETT: I guess it would be similar
21 if there was a fish kill and it is a one-time event, that
22 doesn't mean that the water body is impaired permanently
23 because a train car rolled into the river.

24 MR. CRAIG J. WILSON: That is the concept.

25 MEMBER SUTLEY: I come back to my original

1 question which is: If the standards, the CTR standards,
2 are expressed as you need a certain number of exceedances
3 over a period of time to have a violation, then how is it
4 that you can sort of throw that out and say, well, for
5 purposes of understanding whether there is a violation or
6 not it applies, but for purposes of determining whether
7 the water body it doesn't. I don't get the distinction.

8 MR. CRAIG J. WILSON: There is a number of ways
9 of looking --

10 MEMBER SUTLEY: Hold on. Just because -- I
11 mean, the way I understood it, and somebody tell me if I
12 am wrong here, is that the situation which I just
13 described, a fish kill, if it happens once, well, it
14 happened once. If it happens twice, then you have to
15 start to wonder what is going on in the water body that
16 would permit that to happen more than just something, you
17 know, something that ended up in the water body that
18 killed all the fish. It just starts to -- and that the
19 standards are expressed in that way to take account of the
20 uncertainty over a single piece of data, of what causes a
21 single piece of data. So --

22 CHAIRMAN BAGGETT: The CTR is established for
23 point source pollutants, correct? For permits which
24 permit, as per NPDES permit.

25 MR. CRAIG J. WILSON: The CTR values were

1 established as water quality criteria that apply to water
2 bodies, every part of a water body. And once we have the
3 CTR that applies to the water body, we have a process to
4 go through to calculate effluent limits off of those
5 values. And when you enforce on those effluent limits,
6 you are looking back at the data you have. It is a
7 fundamentally different kind of situation. Getting two
8 hits in a row, just by chance, is the statistical test
9 that shows that that is probable. Random events occur in
10 rows. They don't alternate. Getting more than one hit,
11 and this policy for toxics calls for at least three hits,
12 and then it is appropriate to list and there is good --

13 CHAIRMAN BAGGETT: As opposed to --

14 MEMBER SUTLEY: Then that gets to my next
15 question, which is: How can you say you are not changing
16 the standards because the standards are expressed as one
17 -- more than one exceedance in a three-year period? You
18 are saying three is okay.

19 CHAIRMAN BAGGETT: Two.

20 MEMBER SUTLEY: Two exceedances. So how is
21 three okay? And the standards are saying two is not okay.

22 CHAIRMAN BAGGETT: He is saying three will
23 list.

24 MR. CRAIG J. WILSON: Three will list.

25 MEMBER SUTLEY: Right. Isn't it supposed to

1 be two will list? That is what I don't understand, why
2 that is not changing the standard. Because one exceedance
3 is allowed and it is the second exceedance that says you
4 have a violation. Did I miss something? That is the way
5 the CTR is expressed.

6 MR. CRAIG J. WILSON: That is the way the CTR
7 is expressed. And to me, one trial, one instance of
8 answering that question, are water quality standards
9 exceeded, you get one gimme, if you will, one hit, and
10 then the next one, if it is a hit, you have two hits.
11 Then for that one trial you have a water quality standard
12 that is exceeded. Now that is one time in a row. And
13 looking back on it, if we were enforcing on this, I can't
14 say anything about whether it is happening now or whether
15 it is happening in the future. But as the evidence begins
16 to build, as we get more hits, then we can't say that.
17 That is all I'm saying.

18 MEMBER SUTLEY: Except that -- I'm having
19 trouble. You know I've been having troubling with this
20 for months.

21 MR. CRAIG J. WILSON: I realize.

22 MEMBER SUTLEY: But that -- I don't know where
23 we have another situation in any other media where you
24 would say that the data you have isn't indicative somehow
25 of what the condition of whatever it is, the water body,

1 the air shed, that is all you got to go on. This is a
2 list that is done every two years. It is supposed to be
3 updated every two years, and then the consequence of this
4 is a decision at some point, whether you do a TMDL or not,
5 so if we don't have that, then what do we have? We don't
6 really have a way of judging whether a water body is
7 impaired or not.

8 MR. CRAIG J. WILSON: All I am saying in this
9 process, we are building up the evidence, and scientists
10 and everyone else have propensity to look at small amounts
11 of information and see patterns in small amounts of
12 information. One of the reasons we have statistics is to
13 force scientists to use a standard set of approaches so
14 they don't overstate the answer too quickly, so you have
15 enough evidence to make these inferences.

16 Looking at the data sets in the past is easy. It's
17 a piece of cake. You don't have to infer anything; it
18 says what it says. If we have two out of three, that is
19 what you are enforcing on, that is the answer. But if you
20 want to infer to the future, you need a little bit more
21 information.

22 I'm sorry this isn't a satisfying answer, but that
23 is the answer. That is why we are doing it this way.
24 That is why we proposed it this way.

25 CHAIRMAN BAGGETT: I think that was one major

1 area of comments. We will hear more about it and that is
2 one of the comments and that is one of the issues, two
3 versus three.

4 MR. CRAIG J. WILSON: I understand.

5 CHAIRMAN BAGGETT: It appears there is less
6 controversy with the conventional pollutants.

7 Any other questions?

8 We have lots of cards. I am sure we will before
9 5:00. We will be back. Three hours? We'll see.

10 Dave Smith, U.S. EPA, first, and then Donna Chen
11 has a plane to catch.

12 MR. SMITH: Good afternoon, Chairman Baggett
13 and Members of the Board. Thanks for the opportunity to
14 speak to this issue. I will certainly pick up on a couple
15 of the issues that you have been talking about the last
16 few minutes.

17 First, I wanted to commend staff, Craig and his
18 staff, for the extraordinary hard work they've done.
19 They've tried to craft a very difficult policy. We think
20 that they've created a framework that is workable here.
21 As you can tell from seeing our comments, we do think
22 there are critical areas that are inconsistent with your
23 own water quality standards as well as with good
24 statistical practice and thereby inconsistent with federal
25 requirements. But I would like to emphasize that I think

1 there are many very good things in this policy and the
2 latest draft is a marked improvement over the prior draft.

3 I think we all share the overall goal to come up
4 with a comprehensive listing policy that will deal with
5 consistent listing decisions on the state and still
6 provide discretion to tailor our assessments to individual
7 situations. I think that the policy goes a long way to
8 achieving that balance.

9 We don't think it strikes quite the right balance
10 between analytical rigor and inclusiveness, nor between
11 the use of standardized rules and professional judgment.
12 But our sense is that a number of these issues can be
13 corrected without a huge amount of effort. So I guess
14 what our overall message is: We think you're close. We
15 think it's worth a limited shot at crafting some
16 improvements to this to address these types of concerns.
17 We think there are solutions that need to make this drag
18 on for months and months or years and years from now.

19 We think it is particularly worth noting that the
20 policy calls for the use of all kinds of data, including
21 pretty unconventional data types, and that is great. So
22 we think that if you retain that kind of approach, a
23 comprehensive approach to looking at all kinds of data,
24 that you'll have the policy that is workable and could
25 lead to the right decisions. But there are some

1 weaknesses, as we pointed out in several of our comments,
2 that trouble us and that require some attention.

3 The first has to do with the use of these
4 statistical methods to evaluate the data sets. We have
5 concerns both with the application for toxic pollutants
6 and conventional pollutants. Since you focused on the
7 toxic issues, I will kind of highlight the differences in
8 views.

9 Craig spoke to the idea that the policy would
10 require the listing for toxics, if there are three
11 exceedances. That is true for very small samples. For
12 larger sample sets the policy provides for listing, which
13 would allow a 5 percent exceedance rate for toxic
14 pollutants. Under the California Toxics Rule, it
15 essentially allows a .1 percent exceedance rate. That is
16 basically one day in a three-year period, rounded. And
17 there is a big difference between allowing a .1 percent
18 exceedance rate and a 5 percent exceedance rate in
19 applying these types of statistical tests.

20 We do have some issues that are very technical
21 concerns about the structure of the statistical tests that
22 are proposed here, and I'm not going to get into those
23 today. We do think it's possible to use these types of
24 statistical tests. The way they are structured in this
25 draft have some problems that EPA statisticians in

1 Washington have big issues with. But I think it is safer
2 to say and simpler to say the use of the binomial approach
3 for the way the California water quality standards are
4 expressed in most cases is inappropriate.

5 CHAIRMAN BAGGETT: I guess I have one basic --
6 frustrated with this process. I'm wishing we were back in
7 water right fees at this point. We aren't setting floors
8 here. I guess the frustration, I've gone around with a
9 lot of people the last year and a half. If you have two
10 hits, and the Regional Board decides it should be listed,
11 it can be listed with this policy. It doesn't prohibit
12 you. This is like first cut. That's where I guess I fail
13 to see -- would you just propose we say where we are and
14 not have a policy? Do a case by case and continue.

15 That seems to be where people are headed. Let's do
16 it the way we've always done it. If you don't like it,
17 you can list whatever you want to list and we go on our
18 way, and they will see you instead of us.

19 MEMBER SUTLEY: They can list anything they
20 want to list, anyway.

21 CHAIRMAN BAGGETT: Why does this even matter
22 to you, one? And two, I'm really struggling why you care.
23 You can list whatever you want to list anyway. You can
24 ignore this state policy. And two, this is saying, the
25 way I read the statistical stuff, if you fall here, then

1 you are automatically listed. If somebody makes a case
2 and there is two bad hits, even though there is 2,000
3 samples, two in a three-year period, it violates it and it
4 should be listed. There is nothing in this policy that I
5 read that prevents you from listing that or the Regional
6 Board or anybody else.

7 MR. SMITH: Couple of thoughts. First of all,
8 we think that this much effort is being placed in
9 developing a listing methodology. It is good government
10 to base listing decisions on an overall methodology rather
11 than trying to reduce everything to case by case.

12 CHAIRMAN BAGGETT: You are basically proposing
13 we use CTR and water quality standards, and if you
14 violate, and that is a really simple policy. We don't
15 need --

16 MR. SMITH: That is an option you can adopt to
17 modify the policy to make it more in accord with your
18 water quality standards and with the CTR. But I think the
19 other point that is worth stressing is while there are
20 provisions in the policy that authorize the use of weight
21 of evidence approach, its use appears to be discretionary,
22 and I think that there is a lot of concern that that
23 discretion may not actually be used by the Regional Boards
24 or by the State Board.

25 Perhaps. But I hope we share the goal that it is

1 better if EPA's approving states submitted lists rather
2 than consistently disapproving them. So our sense is
3 close enough to having a framework that could yield
4 approvable lists that it is worth a try to get there.

5 CHAIRMAN BAGGETT: That is not the way I read
6 your letter. It doesn't sound like we are close at all
7 when I read this letter. It sounds like we are far apart
8 as we were a year and a half ago.

9 MR. SMITH: I guess I would just say I do
10 think a number of the things that we had concerns about in
11 the prior draft have been successfully resolved in this
12 latest draft, and we are pleased about that. We
13 appreciate that. We think that some of the fixes with
14 respect to some of these statistical tests, that there are
15 alternatives that are available to us now that have been
16 suggested that could be adopted. So it is not a matter of
17 discovering new methodologies to incorporate into the
18 policy. We've addressed those issues.

19 It would be a matter of the Board providing
20 direction to staff to actually work with us and seek those
21 types of changes, incorporate them. And I think with
22 respect to the weight of evidence provisions, and I guess
23 the other thing I would mention is we had some concerns
24 about data quality expectations of the policy sets. With
25 some fine-tuning to those types of provisions it would

1 satisfy us that the state really will apply this weight of
2 evidence approach forcefully and that that could provide a
3 way to fix problems, from our perspective, that are caused
4 by application of these other types of tests.

5 So that is why I am saying that I think we are
6 fairly close to a policy that certainly could result in
7 approvable lists that address not every stakeholder's
8 comments, but many of them. So I think our recommendation
9 would be that you do that, that you ask the staff to make
10 some kind of fine-tuning corrections in some areas of the
11 policy. Not to scrap the whole thing, not to go back and
12 redraw the whole thing. But to try to do that in a fairly
13 quick period of time and bring it back to you for your
14 adoption. And I guess our sense, it's worth a shot. We
15 encourage you to try to do that rather than adopting the
16 policy that at least has the possibility, if not the
17 likelihood, of yielding decisions where we end up having
18 to add a lot of waters to the state's list. We think that
19 is a bad use of everyone's time.

20 Finally, I think we are concerned about adoption of
21 a policy that appears in conflict with state water quality
22 standards simply because it might subject that policy to
23 legal challenge in the state system and tie up you and
24 your staff's time dealing with that type of challenge,
25 which would be great to avoid if we could.

1 So I think I'll leave it at that. I'll be happy to
2 answer any more questions, but I hope you will continue to
3 try to get this right. I think we are quite close, and I
4 think the Board is to be commended for coming up with
5 something that is this close.

6 CHAIRMAN BAGGETT: Thank you.

7 Donna.

8 MS. CHEN: I am Donna Chen, representing the
9 City of Los Angeles. Thank you very much for
10 accommodating my schedule. Good afternoon. I have some
11 comments on the 303(d) listing policy.

12 I want to just add a little bit more on the science
13 aspect that was discussed, touched upon by the previous
14 speaker. I do want to acknowledge that the City
15 appreciates the state's effort to standardized the listing
16 and delisting process. We feel that a well-developed
17 policy is definitely needed. We would like to point out
18 that the various changes made to the latest draft, if you
19 consider them separately, may be considered minor, but, if
20 you consider them in total, they substantially weaken the
21 scientific rigor of a listing policy.

22 Scientific rigor is important. If it is weak, it
23 increases potential for inconsistent application of a
24 policy between regions and lowers the City's confidence in
25 the listing policy and impairment listing that is

1 generated by it. Therefore, the comments that we have
2 recommend that scientific rigor be restored to the listing
3 policy. We have submitted written comments that go into a
4 lot of detail regarding that topic.

5 But not to belabor the fact, I want to point out a
6 couple of items here, to be a little more specific on
7 that. One of them is regarding the current draft restores
8 the use of visual and semiquantitative assessment to the
9 listing policy. The draft mentions the numeric water
10 quality data must exceed the guideline. Again, it allows
11 a referenced condition to be used. So this infers
12 conditions do not have to be numeric in nature in regard
13 to referenced conditions.

14 Our recommendation is to visual and
15 semiquantitative assessment for listings, such as
16 nuisance, as ancillary lines of evidence when compared to
17 referenced conditions.

18 Regarding the weight of evidence approach, we would
19 like to see that clarified when using quality of
20 assessments or dealing with impairments that are not tied
21 to pollutants. We have provided language in our comment
22 letter to provide less confusion. This includes language
23 regarding the consideration of water, tissue or sediment
24 concentration of pollutants as primary lines of evidence.

25 And the last detail, the one I want to point out on

1 the science aspect, is to modify the listing requirements
2 when older data is used for listing purposes. As written,
3 the listing can be made based on data that is greater than
4 ten years old. Older data should be accompanied by new
5 data; that is data less than ten years old. To verify
6 whether the older data is reliable, the newer data should
7 be more heavily weighted because it is more current and
8 more representative of current conditions.

9 I have a comment related to the promulgation of
10 guidance documents and references. In the past the
11 guidelines that have been used were applied
12 inappropriately to local conditions, and it appears no
13 adjustment to fit the local conditions were made on those
14 guidelines. These guidelines and the rationale for their
15 use should be presented for stakeholder review. It
16 appeared that in the past some of these guidelines have
17 metamorphed into TMDLs as standards, and should formally
18 be addressed as a standard. This is promises to
19 wastewater treatment plants and industrial dischargers,
20 because they are under a different set of standards and
21 have had to adjust operations and studies, to address new
22 guidelines or existing guidelines that have be applied in
23 a different manner.

24 So the City recommends that stakeholder review,
25 promulgation of documentation of these guidelines take

1 place as they are incorporated into the Basin Plans.

2 That concludes my oral comments. As I mentioned, we
3 did submit written comments in great detail to the Board.

4 CHAIRMAN BAGGETT: Questions?

5 Thank you.

6 The environmental has asked to be taken as a group,
7 so we will start with environmental group.

8 Conner Everts.

9 MR. EVERTS: You will have to excuse me, I
10 have a bit of a cold. Even though I learn everything, I
11 sit through your meetings such as the water rights fee
12 discussion, I seem to forget not to fly with a cold, so my
13 ears still a little clogged. I can't hear.

14 I'm also going to leave it to the rest of our
15 group, primarily from our PAG group that's worked on this
16 for a very long time, to answer questions. I want to
17 thank you for the opportunity and the diligent work of the
18 staff and the outreach that's been done to this point. I
19 realize that these are also difficult times in terms of
20 budgets and constraints. Nevertheless, I hope we don't
21 waste the investments of time you have all made to date
22 and find some compromises on these issues.

23 My job was a simple one, to fill in for Linda
24 Sheehan and David Beckman who wouldn't be able to make it
25 here today, something about school starting and other

1 programs going on, and find some on the ground examples.
2 However, when I started to do that, I was talking to
3 people from San Diego to the North Coast who I work with
4 doing my circuit writing and outreach, and they brought up
5 more was the difficulty about actually listing the local
6 waters and their concern of delisting of others would
7 become easier. Partly because of the small sample sizes,
8 the statistical method, that it wouldn't be appropriate in
9 a delisting scenario.

10 I don't want to go into a lot of detail, but
11 certainly with what we have seen in a severe drought over
12 the last four years in Southern California, I drive
13 through watersheds that don't have imported water, and we
14 have incredibly dry areas. And with incredibly dry areas
15 increases the plume of pollution in a lot of these issues,
16 so the discharges that we have in a lot of these streams
17 are the only water in the system.

18 One of a few basic points. The rule of three seems
19 very arbitrary. I don't mean that we're against
20 everything we've got here. I think a lot of good work has
21 gone here. I think there are some details we need to work
22 out. I really want to follow on the comment by EPA and
23 you'll certainly get some detailed comments from the rest
24 of us. But we are afraid that the statistical approach to
25 delisting will miss numerous waters and will result in

1 inefficient and problematic listing of others.

2 I hope in this discussion, and I was surprised to
3 hear Chairman Baggett say that he would like to go back to
4 water rights, something that is easier, that we can come
5 to some conclusion, and I hope we can continue to work
6 together because the PAG process was a long-term consensus
7 involvement, and I appreciate the support and I appreciate
8 this time here, and I am going to yield to the rest of our
9 group. I am also tasked with keeping them on time, so we
10 will try to move pretty quickly here. I've given up on
11 trying to catch my flight home. I realize we have to have
12 a lot of discussion here.

13 Thank you very much.

14 CHAIRMAN BAGGETT: Thank you.

15 Sarah.

16 MS. NEWKIRK: Good afternoon, Board Members.
17 I came prepared to say good morning. I have a PowerPoint
18 presentation that is now currently up on the screen. We
19 will try to operate this thing. My name is Sarah Newkirk,
20 and I represent the Ocean Conservancy. My remarks this
21 afternoon will relate to three main objections that we
22 have, the Environmental Caucus had in its recent comment
23 letter on the draft 303(d) listing policy.

24 First, that the statistical listing methodology is,
25 and these are the words of EPA in its comment letter,

1 inconsistent with state water quality objectives. Second,
2 that the rule regarding small sample sizes is unscientific
3 and also inconsistent with state water quality standards.
4 And third, that the statistical technique used for dealing
5 with delisting waters is unprotective and arbitrary. And
6 those again are the words of EPA. And we would like to
7 echo EPA when we say that as a result the policy will
8 result in a situation in which EPA would potentially have
9 to add hundreds of waters and pollutants to the states
10 303(d) list which is a situation we all want to avoid.

11 First, the statistical listing methodology is
12 inconsistent with water quality objectives. As you know,
13 this version of draft policy adopts the accepted sampling
14 by attributes methodology. This methodology is most
15 commonly used to select lots in industrial process
16 applications, and it uses two critical thresholds. First,
17 there is a high point where there is so many defective
18 products being produced in a lot that safety and
19 marketability are compromised. But there is also a low
20 point which the producer is spending so much time and
21 effort trying to avoid mistakes that cost-effectiveness is
22 compromised.

23 This graph shows what this methodology as applied
24 to water quality assessment looks like. The blue curve
25 gives the relationship between the probability that the

1 water body won't be listed and the underlying exceedance
2 rate, given a particular sample size and listing
3 criterion. Now there are two thresholds here, just as I
4 described. The high threshold is the threshold exceedance
5 rate at which there are so many exceedances that it gets
6 dangerous to human health and the environment. The low
7 threshold is an underlying exceedance rate below which we
8 don't want to really worry about because it is not
9 cost-effective.

10 Now assuming that we can agree that there is some
11 lower limit below which waters are too clean to worry
12 about, there is nothing inherently wrong with this as a
13 statistical methodology. The critical issue that you need
14 to think about is where you set the two thresholds. Now
15 intuitively we'd expect that you would set the upper
16 threshold, representing the dirty water body at which you
17 don't -- gets dangerous to human health and the
18 environment to go above this number of exceedances at
19 somewhere around 10 percent, which is what the traditional
20 EPA recommended exceedance rate at which waters were to be
21 listed. And that the lower threshold would be set, I
22 don't know, somewhere below that.

23 But staff has proposed, interestingly, that the low
24 threshold be set at 10 percent and the high threshold be
25 set at 25 percent. So 25 percent is the rate above which

1 it is dangerous to human health and the environment, and
2 10 percent is the rate at which it is not cost-effective
3 to go below. It is a little bit incomprehensible to me
4 how staff came to decide that 10 percent rate of water
5 quality objective exceedances, which is the rate at which
6 EPA's historic guidance called for listing, is consistent
7 with clean waters somehow. But we also strenuously object
8 to the extremely upper high threshold limit.

9 We are not the only ones that think these choices
10 are illegal. EPA said in its comments that the draft
11 policy assumption, that water quality standards can be
12 violated for conventional pollutants more than 10 percent
13 of the time is inconsistent with state water quality
14 objectives. And staff has repeatedly justified this
15 methodology by suggesting that it is consistent with EPA's
16 CAM guidance. But EPA's own comments belie this as well
17 by stating that the examples relied on by staff are
18 actually inapplicable in California. We'd like to note
19 that EPA's comments were made after consultation with
20 headquarters.

21 Our second major flaw that we'd like to highlight
22 is that staff's proposed approach relating to low sample
23 sizes, which we finally called the rule of three, bearing
24 in mind that for conventionals it is the rule of five.
25 There are three major problems with the rule of three.

1 First, it is extremely biased against listing impaired
2 waters. Second, it is unscientific and arbitrary. And
3 third, it is inconsistent with water quality standards.

4 First, the rule of three is biased against listing
5 impaired waters. The rationale for adopting this
6 approach, as stated in the FED, is that if very small
7 sample sizes are used, error rates, even if balanced,
8 could be very high. But the thing to note is that the
9 rule of three avoids only one type of error, that of
10 erroneously listing clean waters. As the FED itself
11 acknowledges, under the rule of three there is a small
12 chance of incorrectly listing a clean water. However,
13 there is a large chance of failing to list water bodies
14 that are not meeting water quality standards. Therein
15 lies the bias.

16 This graph shows how the rule of three works in the
17 context of the accepted sampling methodology's threshold
18 for clean and impaired waters. The three curves here
19 represent different sample sizes, each with a critical
20 exceedance rate of three. The solid blue curve in the
21 center represents a sample size of ten and a critical
22 exceedance rate of three. Note that an actual exceedance
23 rate, a true exceedance rate of 10 percent, there is 95
24 percent probability that we will not list that water. But
25 even out of 25 percent true underlying exceedance rate,

1 there is a more than 50 percent chance of not listing the
2 water. Even more extreme is the wide dotted line,
3 represents a sample size of five with a critical
4 exceedance rate of three. And there at a 10 percent
5 underlying exceedance rate, 10 percent, there is a virtual
6 certainty that the water body will not be listed. Even at
7 a exceedance rate of 25 percent there is a more than 90
8 percent probability the water body won't be listed. In
9 other words, the chances of failing to list truly impaired
10 waters under this methodology are extremely high.

11 Our second criticism of the rule of three is that
12 it is unscientific and arbitrary. Staff's rationale for
13 using statistics in the first place, which you just heard,
14 is also stated in the FED, that using statistics would
15 require the reliance on valid scientific procedures.
16 However, the rule of three is wholly arbitrary and
17 inconsistent with the whole notion of scientific
18 procedure. Maybe this wouldn't be a problem if this
19 procedure were going to be applied infrequently, but
20 that's not the case. Because so many data sets used to
21 make these assessments are small, it will, in fact, be
22 frequent, if not the most frequent procedure, used to make
23 these decisions.

24 Finally, the rule of three is inconsistent with
25 water quality standards. This graph shows the percent of

1 samples that we actually have that are actually exceeding
2 water quality standards for a range of sample sizes under
3 the rule of three. The red line beneath represents the
4 traditional 10 percent listing criterion. You will note
5 that the small sample sizes we list at up to 60 percent of
6 samples exceeding water quality standards. And just a
7 reminder of what EPA had to say about this. The
8 assumption that standards for conventional pollutants may
9 be violated more than 10 percent of the time is
10 inconsistent with state water quality objectives. But the
11 rule of three permits exceedances of water quality
12 standards in up to 60 percent of cases, and this is
13 unacceptable.

14 The final flaw I want to highlight in my remarks is
15 the fact the proposed delisting approach is unprotective
16 and arbitrary. First, that it will result in the
17 delisting of numerous impaired water bodies and, second,
18 that it will result in bizarre listing and delisting loops
19 that I will get into momentarily.

20 First, this Board's expressed its position that
21 delisting should be harder than listing. Not only does
22 the delisting approach under the draft policy not reflect
23 this position, it would, in fact, result in the delisting
24 of numerous water bodies that are actually impaired. This
25 graph, again, the red line beneath shows the traditional

1 listing standard of 10 percent. But the jagged blue line
2 up top is actually the percent of samples exceeding water
3 quality standards which, under this policy, would actually
4 delist.

5 In other words, you can see that water bodies will
6 be delisted when between 13 and 17 percent of samples are
7 actually exceeding water quality standards. We vigorously
8 disagree with the notion that water bodies in which 13 to
9 17 percent of samples exceed water quality standards are
10 actually clean enough to merit delisting.

11 This slide shows portions of Tables 3.2 and 4.2,
12 reflecting the critical listing and delisting thresholds
13 for conventional pollutants. Looking at these tables side
14 by side demonstrates two points. First, it demonstrates
15 clearly it is not any harder to delist than it is to list.
16 But, second, it shows how, when the thresholds are so
17 close, water bodies may bounce on and off the list in a
18 manner that consumes resources and prevents any real
19 action.

20 Consider this hypothetical situation. If you have
21 a sample size of 30 with five exceedances, you get a
22 listing. If you get one more sample and it's clean, you
23 get a delisting. One further sample that shows an
24 exceedance of water quality standards, it gets back on the
25 list. Obviously, this is an illogical result, but it is

1 one that's practically ensured under a methodology in
2 which the listing criteria and delisting criteria are so
3 close.

4 Our solution to these problems that I have stated
5 is to adopt the 10 percent raw score approach. The
6 specifics of this were communicated to you in our comment
7 letter of August 25th, and we encourage you to carefully
8 review the line edits to the draft policy that we
9 submitted. We also proposed that the delisting decision
10 be made using data that are independent from the data that
11 were used for listing, because fresh data will ensure that
12 listing and delisting loops will be avoided.

13 Staff rejected the raw score other approach for
14 this reason: According to the FED, the disadvantage of
15 using it is that the associated type one error rate would
16 be high. In response to this objection, we refer the
17 Board to our comment letter of February 18, 2004, which
18 demonstrated that actually the raw score approach results
19 in nearly balanced error. However, we also contend that
20 unlike type two error, which is failing to list impaired
21 waters, type one error, the listing of truly clean waters,
22 is actually nearly cost free. In other words, the specter
23 of accidentally developing a TMDL or a whole bunch of
24 TMDLs for waters that are not truly impaired is illusory
25 because there is so much confirmatory monitoring required

1 in preparation for the process.

2 This concludes my remarks. Thank you for
3 considering these comments, and I would be happy to answer
4 any questions.

5 MEMBER SILVA: You said that we have a policy
6 of making delisting harder than listing. Where is that
7 policy?

8 MS. NEWKIRK: My understanding was that
9 Chairman Baggett conveyed that to Linda Sheehan at a
10 meeting.

11 CHAIRMAN BAGGETT: I told her that was my
12 opinion. That doesn't mean a State Board policy.

13 MS. NEWKIRK: Understood. Point taken and
14 correction made.

15 MEMBER SILVA: We are trying to make it equal,
16 to make it, I guess, not as hard, but make it fair to both
17 sides to delist and list. That was my understanding.

18 MS. NEWKIRK: The problem with the
19 listing/delisting loop is actually a bigger problem when
20 the thresholds are very close, obviously.

21 MEMBER SILVA: I realize that it wasn't a
22 policy that we established.

23 MS. NEWKIRK: I stand corrected, but Chairman
24 Baggett's policy.

25 MEMBER SUTLEY: Not so much a question for

1 you, but at some point today we need to have a discussion
2 with Mr. Wilson about the delisting, but I don't know we
3 have to do it right at this second.

4 MS. NEWKIRK: Thank you.

5 MR. O'BRIEN: Good afternoon, Chairman Baggett
6 and Board Members. My name is Leo O'Brien. I am the
7 Executive Director of WaterKeepers of Northern California,
8 and EPA stole a little bit of thunder here. It was my
9 intention to focus on toxics and the application of what
10 we feel is the mishandling of toxics impairments under
11 this policy.

12 I want to make clear that Sarah's presentation and
13 the repeated discussion of 10 percent was in regard to
14 conventional pollutants. We believe that the 10 percent
15 hypothesis testing, 5 percent hypothesis testing
16 hypothesis testing, hypothesis testing at all is
17 inappropriate as applied to toxic chemicals. We think it
18 is bad policy, it is not precautionary, it will increase
19 the discharges of toxics in the State of California, and
20 as you have heard inconsistent with what EPA would like
21 you to do, and finally it is illegal.

22 California has well thought out standards for
23 toxics. They have been adopted through a deliberative and
24 public process, and they are stringent. But they're
25 stringent for a good reason. These are the nasty stuff.

1 This is dioxins and mercury and lead. This is the stuff
2 that we don't want out there in the world. They're
3 dangerous to human, dangerous to wildlife. You know all
4 this. But I feel like I need to remind you.

5 And the stringent standards are inconvenient and
6 sometimes difficult for the dischargers, but they are
7 protective of public health and of wildlife and our
8 ecosystems. I intended to quote from EPA's letter. I'll
9 spare you.

10 CHAIRMAN BAGGETT: Thank you.

11 MR. O'BRIEN: But they have repeatedly and
12 sharply criticized the approach taken in this policy.

13 CHAIRMAN BAGGETT: I have to ask you the same
14 question, Leo. I don't understand yet. No one has
15 articulated why this prevents two hits in three years from
16 listing a water body. It doesn't. This is a low hanging
17 fruit. This says that you are automatically in at this
18 level under this statistical model. It doesn't say you
19 can't list. It doesn't say don't list. It doesn't say
20 you are prohibited from listing. It doesn't say violate
21 the CTR anywhere in this document unless you guys can show
22 me where it is. I haven't seen it. It says this is the
23 slam dunk, you are in.

24 MR. O'BRIEN: I hear you. Why do we need it?

25 CHAIRMAN BAGGETT: Why do we need policy?

1 MR. O'BRIEN: The policy should effectuate the
2 standard. The standard is adopted; it exists.

3 CHAIRMAN BAGGETT: It is not taking that away.
4 It still exists.

5 MR. O'BRIEN: If the standard is two or more,
6 why do we need a policy that is three or more and
7 sometimes 5 percent? And, I guess, there is some sense
8 that that is what will be applied and then there is
9 discretion, but there isn't room for discretion here. The
10 standards exist and they take away that discretion.

11 CHAIRMAN BAGGETT: What if there is a car
12 spill? What if it is a Dunsmuir spill? You are proposing
13 we list the Sacramento River forever as an impaired water
14 body because a tanker fell in it? That is what I am
15 having trouble with. Or the blow out of the Delta levee?
16 You have something going in, a catastrophic event.

17 MR. O'BRIEN: Those are special situations
18 that you could create some language to address without
19 creating broad policy that is inconsistent with the
20 legally adopted standards. You know, to some extent --
21 right, there are these exceptional and special
22 circumstances, but there are going to be lots of
23 circumstances in which something not exceptional happens
24 that results in one thing but no -- one exceedance or two
25 exceedances. And so what CTR tells us is that, when those

1 two exceedances happen, beneficial uses have been damaged.
2 They are damaged. So today those beneficial uses are
3 damaged. So, Craig, sort of past, present, we can't tell
4 if they are being exceeded today. The point is the
5 beneficial uses have been harmed.

6 CHAIRMAN BAGGETT: It is likely to be listed,
7 I would assume.

8 MR. O'BRIEN: Outside of the statistical
9 process, if a Regional Board exercises its discretion and
10 you exercise the discretion.

11 The second point I want to make --

12 CHAIRMAN BAGGETT: If we did it last time, the
13 last listing cycle, maybe some of you forgot, we listed
14 all the North Coast rivers impaired for temperature over
15 the ruling of the Regional Board who decided, no, we don't
16 have enough evidence. The fact somebody presented
17 evidence, we listed them. They'e narrative standards.
18 They are very tough to figure out whether it is impaired
19 or not. We use that discretion, and we are applauded for
20 it. I don't understand how this is limiting.

21 MEMBER SUTLEY: I guess I have a slightly
22 different concern. I agree with you, Art, in the sense
23 that we have the weight of evidence approach. I
24 understand that. And I think for things that clearly
25 should be listed, there is not a discussion. I would be

1 concerned, however, if the alternative, the sort of easy
2 way to do it, and we are just looking at data without
3 having to apply judgment was flawed, legally flawed or
4 scientifically flawed. So that is -- the concerns that I
5 have about this is not that we don't have an alternative
6 based on weight of evidence, but if we are trying to make
7 this a more efficient and streamlined way and make sure
8 that we are getting through these listing decisions, I
9 would be very troubled to be adopting a policy that
10 allowed an alternative, even if it could be overruled,
11 that was flawed, legally or scientifically or on a policy
12 basis.

13 So what I am trying to understand is if, in fact,
14 this policy is flawed, if these statistical methods are
15 flawed, I don't know how we could consciously adopt them.

16 MR. O'BRIEN: Chairman Baggett, if what you
17 are saying today is that you and the rest of the State
18 Board Members are committing in some way to exercise your
19 discretion in all of those situations, which I don't hear
20 you to be saying, if that is what you are saying, every
21 time you get a toxic listing or there are two exceedances
22 that you will list, the environmental community probably
23 would feel better about it, but I am not hearing you say
24 that. I don't think you can say that and adopt this
25 policy at the same time. So we'd like you to adopt a

1 policy that does say that.

2 In answer to Member Sutley's point, we do think it
3 is illegal. The test that is used in this policy does not
4 incorporate the time language in the standard, the more
5 than three years. It does not appear anywhere. So the
6 question was asked by Craig: Are water quality standards
7 changed by statistics? And he said, "Oh, no, they are
8 not. Statistics don't change. It is just a way of
9 testing." That is true if you actually test the standard.
10 And we are not testing the standard. We are testing a
11 number which is a part of the standard. There is also
12 this exceedance frequency and time period, a specific time
13 period, three years. Read the policy. Three years does
14 not appear in connection with toxics at all. And so we
15 are not testing the standard. So your standard is not
16 imported into this policy and, therefore, it is
17 effectuated and, therefore, the policy is illegal.

18 The argument has been made in the documents that it
19 is only for one purpose, that for other purposes out
20 there, the other purposes we use the standard for, we are
21 still going to use the numbers in CTR and still use the
22 exceedance frequency. And that seems a very thin defense
23 for you, that to change -- we only changed it for one
24 purpose, your Honor. You know, I think it's deeply flawed
25 from a legal point of view.

1 I would also urge you to look at the way that an
2 average, the language on average -- I am getting very
3 specific and picking this apart as a lawyer for you
4 because I really want you to think about it. How is that
5 language on average, which is part of the CTR standard,
6 expressed in this policy? If you read the language in the
7 response to comments about this, I think you will get a
8 chuckle. It is a real stretch. It is very inconsistent
9 with the language that EPA uses in their comment letter.

10 Your staff also points to other states to support
11 this test. But they haven't provided you with the
12 information on what the -- how the standards are expressed
13 in those other states. California standards protect
14 California beneficial uses, and California deserves a
15 California listing policy.

16 So we have provided you with some language, with
17 some edits, line edits. I hope you will consider them.
18 If you are not willing to remove the entire hypothesis
19 testing and binomial -- I forget the new name for it --
20 the hypothesis testing approach from the policy, I hope
21 you will consider removing it as applied to toxics.

22 And thank you for the time and thank you for the
23 questions.

24 CHAIRMAN BAGGETT: Thank you.

25 MR. GOLD: Afternoon. My name is Mark Gold. I

1 am the Executive Director of Heal the Bay. Unlike most of
2 you, I'm actually happy to be here because it gets me out
3 of the last 15 hours of negotiating AB 885, rather than
4 talking about septics is an improvement to me.

5 First of all, I just wanted to state that I felt
6 that Sarah's testimony in particular, really, I think laid
7 out for everybody what are the biggest concerns on this
8 approach. Obviously, you want certainty, consistency and
9 environmental and public health protections in your
10 recommendations, and to have the sort of erratic ambiguity
11 within the existing system for both delisting and listing,
12 having similar policies, the small sample size issues, the
13 CTR issue which Leo just went into in detail, those are
14 obviously major concerns. But I am up here just to talk
15 particularly about beaches.

16 Obviously, that is something that Heal the Bay does
17 an awful lot. I sit on your clean beach advisory group,
18 and our organization does our beach report card. So we've
19 been looking at the beach water quality data probably more
20 than anybody else in the state.

21 We strongly urge the State Board to go with the 10
22 percent flat rate overall, if they are going to be doing a
23 flat rate at all for beach water quality, and that 10
24 percent plus the binomial on top of it is not at all
25 protective to beachgoers. You've heard that rationale for

1 why that is from Sarah. And I would like to also state
2 that this has been discussed at the beach water quality
3 work group for the state. And when it's been discussed
4 it's been talked about 10 percent for the year and 4
5 percent before the AB 411 periods. No one has been
6 talking about throwing in the additional margin on top of
7 that, where 10 percent is really the issue. The other
8 thing is just a 10 percent flat rate, just to remind you,
9 doesn't take into account the magnitude of exceedance of
10 any sort of violation. There are many beaches as we all
11 well know that not only exceed the standard, but exceed
12 the standards by orders of magnitude. By not taking that
13 into consideration that obviously is a major, major
14 concern from the standpoint of beach water quality and
15 protection of public health. Obviously health risk is not
16 only what the -- it is the number of people that are in
17 the water as well as the density of bacteria that is in
18 the water, and that is not taken into consideration at
19 all.

20 Just a reminder on the rationale given by your
21 staff is that variability and analysis is one of the
22 reasons why 10 percent flat was not taken. And remember,
23 the water quality standards that you developed in the
24 State of California as part of AB 411 are based on
25 epidemiologic evidence where people are getting sick and

1 the variability is taken into consideration in determining
2 what those numbers are.

3 And even the Southern California study done by
4 SCORP, basically seeing what the variability was in
5 samples, determined that for an enterococcus density of
6 104, you can have a density of anywhere between 70 and
7 155, which is one standard deviation away from that. Why
8 is that important? It tells you that you can
9 underestimate densities as well. It is not just
10 overestimating densities, which, again, is not taken into
11 consideration by the approach that your staff has gone
12 forward on.

13 The other thing that is in here is there is a
14 tremendous disincentive for wet weather monitoring because
15 there is no use of rain advisories. So why would you as a
16 local government agency or health department monitor
17 during the wet weather, knowing that that could
18 potentially be used for listing policies when rain
19 advisories cannot. That makes no sense whatsoever. We
20 see it right now in San Diego County, for example, where
21 their monitoring program, which is absolutely excellent,
22 during day before AB 411 time period, is merely a skeleton
23 program during wet weather, and obviously that reduces
24 their risk of delisting -- listing.

25 CHAIRMAN BAGGETT: Aren't most of -- like Santa

1 Monica Bay is listed for most of the pollutants of concern
2 already.

3 MR. GOLD: Yeah. I am concerned about the
4 entire state of California, not just Santa Monica Bay.

5 CHAIRMAN BAGGETT: And San Diego Bay and most
6 of the -- I guess, what is left?

7 MR. GOLD: You have listing and delisting
8 policy. This is going to definitely come into
9 consideration if you are going to decide to take something
10 off.

11 CHAIRMAN BAGGETT: Delisting is another issue.

12 MR. GOLD: The other thing is we strongly
13 believe that there should be a reference approach. A
14 reference approach is preferable to the 10 percent flat
15 approach because then you are really comparing what is
16 going on in the local area for bacteria densities in
17 comparison to reference conditions. That is really the
18 correct scientific approach. That is what L.A. County has
19 obviously done with Santa Monica Bay, the L.A. Regional
20 Water Quality Control Board. It is something that we
21 think really needs to be mandated throughout the state
22 rather than just setting a flat number, because you are
23 really talking about comparing risks, and where you have a
24 pollution source areas and where you don't. Right now it
25 is an option. It is certainly not a mandate.

1 The last thing, which I am assuming must have been
2 a typo, is that there is AB 411 4 percent requirement for
3 April through October. It says right now it applies only
4 to coastal beaches. I am assuming like the rest of the
5 section that it's actually applying to all rec-1 waters.
6 And so I hope that is something that gets clarified.
7 Obviously, we should be concerned about people who swim in
8 creeks and lakes and rivers as well. And right now the
9 policy is silent on what to do in that particular
10 situation for listing. I am assuming the 4 percent before
11 AB 411, the time period through October applies as well,
12 so that needs to be qualified.

13 Thank you.

14 CHAIRMAN BAGGETT: Want to clarify that now,
15 Craig.

16 MR. CRAIG J. WILSON: Of course, the 4 percent
17 value came as a recommendation from the beach water
18 quality work group. We pretty much took all of their
19 recommendations directly. The 4 percent value was
20 developed with a shoreline study in Southern California.
21 It is definitely applicable to coastal waters, to coast
22 lines. I don't see that it is applicable to inland waters
23 since it was not developed for those waters. We've made
24 that distinction between the two.

25 CHAIRMAN BAGGETT: Why wouldn't it be?

1 MR. CRAIG J. WILSON: I have no idea if the
2 lakes and streams react the same way, have the same kind
3 of exceedance frequency as was developed for coastal
4 waters. We were just being very narrow in the way we
5 interpreted that, not broad. I am sure if we interpreted
6 it broadly, we'd have the regulated community saying,
7 "Hey, why are you applying it to freshwater? It was
8 developed for ocean waters." We took a conservative
9 approach.

10 CHAIRMAN BAGGETT: Mark, do you have -- no
11 doubt you were involved in this.

12 MR. GOLD: The 4 percent was not any sort of
13 well thought out study. It was more looking at what were
14 the water quality trends throughout the state for areas
15 where you didn't have any pollution sources. So we were
16 looking at 4 percent and saying, well, you know if you are
17 over 4 percent then you've got issues. The 4 percent is
18 similar to what you might expect in a background type
19 situation. So just because the data that was only looked
20 at was coastal data, doesn't mean that we should just
21 ignore the fact that literally millions of people are
22 swimming in our rivers and our lakes, and that is the
23 situation here. It wasn't any special ocean study that
24 was done. It was just looking at existing data.

25 CHAIRMAN BAGGETT: So Lake Tahoe, Lake

1 Almanor. Recreation.

2 MR. GOLD: Exactly.

3 MR. JENNINGS: Good morning -- good afternoon.

4 CHAIRMAN BAGGETT: Good morning someplace.

5 MR. JENNINGS: Bill Jennings representing
6 DeltaKeeper, San Joaquin Audubon and CSPA. I want to
7 talk, briefly address error rates and small sample sizes.

8 This is essentially the picture of a graph that
9 Craig Wilson has employed in a number of presentations to
10 illustrate binomial method balancing errors. The red line
11 is the probability of improperly listing a clean waterway,
12 and the blue line is failing to list a dirty waterway.

13 Let's focus on small sample sites, sample sites of
14 less than 25. Notice that the error rate at sample sets
15 of less than 25, the chance of making an error using the
16 binomial method when balanced under a 25 percent scenario
17 as staff proposed, and this graph is based on the same
18 statistical parameters that your staff has used. The
19 green dots represent the chance of failing to list a water
20 body that is actually impaired, and the red dots represent
21 improperly listed water bodies that are not impaired. The
22 graph clearly demonstrates the so-called balance error
23 rates are not really equitable. Errors are frequently
24 greater than 20 percent. For critical sample sizes,
25 balancing simply doesn't work for small sample sites.

1 These error rates are compounded when the rule of
2 three is used, as proposed by staff. The likelihood of
3 failing to list an impaired water body dramatically
4 increases. The likelihood of listing a clean water body
5 substantially declines. In fact, if you look at a sample
6 size of ten, you are looking at almost a 68 percent error
7 rate for improperly listing a water body.

8 Remember, you can only make one error at a time.
9 And staff has conveniently failed to illustrate the error
10 rates associated with the rule of three, nor have they
11 pointed out any statistical justification for the rule of
12 three. The rule of three is purely arbitrary. It is
13 purely political. And if it is included in the policy, it
14 will provide the regulated community with an enormous
15 incentive to oppose increased monitoring efforts.

16 The next set compares the binomial with the
17 binomial plus rule of three for sample sets of between
18 five and ten and between ten and 20. Keep in mind that
19 the binomial approach ignores magnitude, spacial and
20 temporal concerns and the methodology that EPA and the
21 state have used to develop water quality standards.

22 One only has to look at SWAMP, the Bay's regional
23 monitoring program, ag waiver monitoring, the Sac River
24 Watershed Program and Southern California's water research
25 program, or, for that matter, USGS' NAWA or EPA's EMAP

1 monitoring to realize that for the foreseeable future we
2 are cursed with small sample sizes.

3 CHAIRMAN BAGGETT: Bill, you don't have to go
4 back to the slide, but how would this discourage more
5 monitoring? Wouldn't it be the converse? Would't you --
6 if I were a discharger, I would want tons of samples. I
7 would want to have more.

8 MR. JENNINGS: You would want fewer samples.

9 CHAIRMAN BAGGETT: I would want to monitor so
10 I have a few samples.

11 MR. JENNINGS: With fewer sample sites it is
12 much more difficult to list a water body, especially under
13 a binomial method and rule of three. One of the problems
14 is that I can go out on the Calaveras River, which is next
15 to our office, and I can select -- I would collect five
16 samples, and they'd be toxic. Or I could collect five
17 samples and they wouldn't be toxic. That would depend on
18 when I went out there to collect the samples. So I am
19 just very suspicious of some arbitrary statistical
20 approach that doesn't really give precedence to a best
21 professional judgment and discretion of the Regional
22 Board. My concern is that the binomial approach and the
23 rule of three really becomes the standard and best
24 professional judgment becomes the unusual situation.

25 CHAIRMAN BAGGETT: I guess, I pose the same

1 question. I see this as the opposite thing. I am saying
2 this is the low hanging fruit. If you fall under these
3 numbers, you are listed instantly. It doesn't discourage.
4 The Regional Board can list before they even have samples
5 if though feel it needs to be listed.

6 MR. JENNINGS: Well, if that were the case, we
7 wouldn't need the binomial -- the binomial method
8 shouldn't apply to those sample sizes. If you get your
9 three hits or two hits in three years, you just list. In
10 that case we are arguing over nothing. We just eliminate
11 the binomial approach for small sample sizes. Because if
12 large sample sizes, balancing, it begins -- there is much
13 less of an error rate. We all agree if we have a hundred
14 samples that we have a pretty good chance --

15 CHAIRMAN BAGGETT: What number would you -- so
16 that is -- then to follow up on that, what would you
17 propose then? What is low -- one of the struggles I am
18 having, when you only have a few samples and it is
19 especially the CTR constituent, I'm struggling where that
20 line is, if you are going to draw a line. Recognizing
21 that this line really can be overridden by best
22 professional judgment of the State or Regional Board.

23 MR. JENNINGS: I think you can work on that if
24 you make more clear the lines for best professional
25 judgment and how it would play.

1 MEMBER CARLTON: Looking at your chart there,
2 that you have displayed, Bill, you would say, like, 25, 25
3 sample sets that we are getting out into a range where the
4 errors are small.

5 MR. JENNINGS: It's smaller.

6 MEMBER CARLTON: Would you find more value,
7 more accuracy in using this approach, greater than 25
8 samples?

9 MR. JENNINGS: I think that would open up a
10 line of communication we ought to have. It is
11 encouraging.

12 MEMBER SUTLEY: Let me ask -- I don't who,
13 somebody. It would seem to me that if we were to come up
14 with a sample size number that everybody felt comfortable
15 with and had some scientific or some statistical basis or
16 if it is 25, it would seem to me the way that we -- if we
17 are looking for some consistency among the Regional Boards
18 and some efficiency in this, then below 25 we need to be
19 clear that we are going back to what the standards are,
20 which would be 10 percent, if I get this right, 10 percent
21 for conventional pollutants or no more than exceedances
22 for toxics over a three-year period based on the data that
23 you have at hand.

24 CHAIRMAN BAGGETT: Or also best professional
25 judgment. By Bill's own admission, depends on where you

1 take these, and Regional Board I assume considers all
2 that.

3 MEMBER SUTLEY: If you were to look for some
4 shorthand and what the data was written on would seem to
5 me -- well, maybe it is the converse, which is you should
6 not fail to list something where you have more than 10
7 percent exceedance of conventional pollutants and you
8 should not fail to list where you have more than two
9 exceedances, and then the listing basis you go to is the
10 weight of evidence. But I just don't want us to get in a
11 situation where we adopt a policy which says for small
12 sample size it's okay to use a flawed statistical method.
13 Small sample sizes no statistical method is appropriate,
14 and that we should be back at the standards.

15 CHAIRMAN BAGGETT: Craig, do you have --

16 MEMBER SUTLEY: Maybe that was a rhetorical
17 question.

18 MR. CRAIG J. WILSON: The rule of three, I
19 hate to call it the rule of three. The reason we have
20 that is to avoid setting a minimum sample size of, like,
21 21 samples or 25, that kind of thing. But rather to say
22 if it, the samples, are representative, the example that
23 Bill gave where you can go out and collect five hits, and
24 go out the next day and collect five hits, that is not a
25 representative sample. There is clearly something going

1 on there that's inappropriate, and the Regional Board
2 needs to look at that sample very carefully. It's
3 representative. We thought in that lower graph there,
4 where the green lines goes up, that is the type two error.
5 In those circumstances we always list. There would never
6 been a type two error in that circumstance.

7 So we saw this as going towards being
8 environmentally conservative, listing when you have three
9 samples, even though the sample size wasn't large, because
10 the burden of proof was met. I don't need to see, if I
11 have three hits in a row out of these samples, I don't
12 need to see 20 more hits to list. We have met the burden.
13 List it. That is what that rule is about.

14 MEMBER SUTLEY: Potentially violates the
15 standards.

16 MR. JENNINGS: It is a nonstatistical path put
17 on to a statistical approach. And if the binomial is
18 statistical, then why would you then say the rule of
19 three, which has no statistical --

20 CHAIRMAN BAGGETT: Craig.

21 MR. CRAIG J. WILSON: It is a nonstatistical
22 approach. It is a policy-oriented thing. But it makes
23 sense, the burden of proof is there. If you want to set a
24 minimum sample size, minimum hits, that could be done.

25 CHAIRMAN BAGGETT: That sounds at least one to

1 explore.

2 MR. JENNINGS: Pardon?

3 CHAIRMAN BAGGETT: Communicating about.
4 Dialoguing.

5 MR. JENNINGS: I guess what my concern is
6 that, for example, what SWAMP is is 4 percent of what the
7 Legislature was told was the minimum number required to
8 monitor the state's waters. I mean, most Regional Boards
9 will monitor a given watershed three or four times, once
10 every five years. I mean, since we are faced with these
11 limited monitoring, these inadequate sample sizes, any
12 approach that is statistically skewed against limited
13 sample sets is unfair and biased against, you know, the
14 environment. And I want to reiterate that I think it is
15 far more egregious to fail to list an impaired water body
16 than improperly list a clean water body. If a water body
17 is improperly listed, all that occurs is additional
18 monitoring to further define the problem. It is easily
19 correctable. However, if an impaired water body is not
20 listed, environmental degradation continues. In Region 5
21 we have 250 impaired water bodies, and we've done nine
22 TMDLs. This is hardly the burden that listing brings to
23 the regulated community.

24 Thank you very much.

25 CHAIRMAN BAGGETT: You know who you are.

1 MS. MCGINNIS: Hi, I am Kate McGinnis. I am
2 hear representing California CoastKeeper Alliance. This
3 is a priority issue for the Alliance and is member
4 organizations who are San Diego BayKeeper, Orange County
5 CoastKeeper, Santa Monica BayKeeper, Ventura CoastKeeper,
6 and Santa Barbara ChannelKeeper. I am here to speak about
7 the water quality segments being addressed portion, which
8 we believe should be eliminated from the policy.

9 This section classified as water segments in the
10 separate section of the 303(d) list, if the segment is
11 being addressed by a certified program in lieu of TMDL,
12 this is unacceptable because it will allow water segments
13 on the special portion of the 303(d) list to avoid the
14 TMDL process, circumventing the requirements of Section
15 303(d). It is of the utmost importance for all impaired
16 waters to have a TMDL since this is the legal requirement
17 to restore waters to meet beneficial uses. The intent of
18 the Clean Water Act is for the TMDL program to co-exist
19 with other enforcement and cleanup programs under the act.
20 Without the TMDL the enforcement programs for water
21 quality improvement will be disparate and variable across
22 the state.

23 The TMDL process sets up a system which will allow
24 for effective cleanup of impaired segments statewide.
25 Section 303(d) provides a mechanism to take into account

1 these existing programs through the prioritizing segment
2 fraction. Priorities can be set based on the severity of
3 the pollution and uses to be made of such waters. Rather
4 than exempt these waters with existing programs, the Board
5 should use the program as a factor for this prioritization
6 analysis.

7 Thank you for considering our input and for giving
8 us the time to testify.

9 CHAIRMAN BAGGETT: Dave.

10 MR. PARADIES: Good afternoon. I'm Dave
11 Paradies. You are missing one member. We will shorten
12 your afternoon by a little bit. I am Dave Paradies. I am
13 the Bay Foundation, Morrow Bay. I'd like to apologize for
14 Linda Sheehan who couldn't be here because of a commitment
15 in Washington, D. C., and for David Beckman who had a
16 commitment in front of a judge regarding some water
17 quality litigation.

18 For a little change of pace in this dialogue, the
19 Environmental Caucus would like to thank staff and the
20 Board for some of the improvements that we see in the
21 policy. In particular, the situation specific weight of
22 evidence section is dramatically improved over the early
23 version that you folks saw. The section on the method of
24 dealing with considering all data is much better than the
25 original that was far more limited. As you can tell from

1 my colleagues' testimony, we still have some difficulties
2 with this. I would like to join voices with Dave Smith of
3 U.S. EPA in saying what we have here is a document that
4 can be worked on just a bit longer and have something that
5 is workable.

6 Touching briefly from a different standpoint on
7 binomial issue. One of the underlying intents of this
8 whole process was to come up with a screening level more
9 or less method of just list or don't list, using a simple
10 formula. Then to rely on professional judgment. The
11 underlying motive was to make it more automatic, to have
12 more uniformity, to take some of the risk, both to the
13 waters and the economic risks, out of this whole process
14 for dischargers. Unfortunately, the binomial just doesn't
15 appear to be the method.

16 I share Ms. Sutley's viewpoint, if the water
17 quality standard is violated, it's violated. When you
18 place additional burdens on top, all you're doing is
19 reducing water quality protection. In the wonderful
20 charts and graphs we see one of the things that both the
21 Environmental Caucus, PAG and the regulated caucus of the
22 PAG agreed on was this process should be transparent.
23 Should be transparent means it should be understandable to
24 the public. In my view, the public can understand this
25 water is dirty. If the standards are exceeded more than

1 10 percent of the time, I doubt very much whether we will
2 see the public examine the binomial distribution and so on
3 and see any kind of transparency or any sense.

4 While it sounds like science, it's merely a method
5 of changing the level of the bar. We talk low sample
6 sizes. I don't think anyone in the room wants to list on
7 a single sample with a bunch of uncertainty. But all the
8 burden and all this entire policy is slanted toward, the
9 discretion that once you lose that screening level. If
10 the policy had a minor paragraph change that said if there
11 is a low sample count, but water quality standards are
12 exceeded, than that Regional Board would be obligated or
13 State Board would be obligated to come up with an
14 explanation for why it didn't list. Then you might have
15 some balance in this thing. Right now it's all slanted
16 the other way. It's discretionary. When we don't make
17 the screening level, then you have to go through a more
18 complicated process.

19 I think it's in everyone's best interest to see
20 more of the decisions moved into the more uniform
21 screening level, and that is, I believe, the answer to
22 Mr. Baggett's question as to why there is such a furrow
23 over this binomial test.

24 Accordingly, the Environmental Caucus asks you to
25 simply reject that and put back the 10 percent. There's

1 been discussion of these low sample counts and a kind of
2 an assertion that five exceedances should be required for
3 conventional pollutants. When we talk about typical water
4 quality sampling here in California as evidenced by the
5 SWAMP program, one way to sample water in streams and
6 rivers and lakes and so forth is a fairly low frequency
7 sampling, like monthly, for example. I do a lot of this,
8 a lot of monitoring. I do a lot of data analysis of this
9 data. When I take a look at those 12 monthly samples and
10 I have nitrate screening at three and five and ten times
11 the drinking water standard in four months, and those four
12 months just happen to be the growing season, I shouldn't
13 need to revert to a best professional judgment approach.
14 The screening level should handle it. The five is
15 arbitrary. Whether we call it rule of three or rule of
16 five, the same counts of water quality standards are
17 violated. Then the water body should be listed or there
18 should be an explanation.

19 We did see a few other technical problems similar
20 to the one Mark Gold brought up, that through adding the
21 word "coastal beaches" to that one coliform rule, what
22 you've done is tell the people swim in the American River
23 that they -- it's okay if they swim in 250 percent as much
24 fecal coliform as somebody down in Newport Beach. I don't
25 think you want to go there. It doesn't make a great deal

1 of sense.

2 With respect to some of the toxicity testing
3 language in here, we have one paragraph that says you can
4 list for toxicity alone and another paragraph that says
5 certain other kinds of biological effects you must
6 demonstrate that there is a pollutant associated with it.
7 This is kind of strange because a standard toxicity test
8 that you'd be getting, you go out and measure whether the
9 animal died, whether it grew enough, whether it had young.
10 That's the test. Except this policy separates those
11 things and sets up a different set of rules for part of
12 the tox test than it does for the other part.

13 In general, one more follow up. We talk about
14 minimum sample size. When Governor Davis put out his last
15 budget, he got rid of all water quality sampling in
16 California. We went through an exercise with the
17 Legislature who in effect restored water quality sampling
18 in California. So the SWAMP program died, and then it
19 came back to life. Right now the SWAMP program has lost
20 30 percent of its budget again. That is pretty crippling
21 for a program that was underfunded to begin with. We are
22 concerned since the dischargers are paying an added fee,
23 where is the money going and why is the program being cut,
24 and how can you possibly consider looking at minimum
25 sample sizes when you are not prepared to pay through that

1 program even for the most minimal sampling at all in the
2 State of California.

3 In closing, we would urge the Board to change the
4 policy to address the concerns of U.S. EPA, and we would
5 like you to take another look at many of those line items
6 detailed as we provided you with.

7 Do you have any questions?

8 CHAIRMAN BAGGETT: I don't.

9 A lot to think about. Secretary said you can talk
10 to him about the budget cuts. That was his tough calls.

11 Let's take ten minutes and then we'll come back
12 with Craig Johns trio and then we have Bobbi Larson and a
13 couple people, and we've got miscellaneous after that.

14 A couple things maybe to think about during the
15 break for Craig, et al. I think you heard some discussion
16 of communication on should there be a 25 limit for minimum
17 sample size, the delisting criteria strike out underlined
18 on the environmental community's strike out underlined.
19 Any comments on that would be appreciated by me, anyway.
20 And the 4 percent issue, on whether we should apply that
21 to inland surface waters. It's been a proposal noted
22 here, some interest in.

23 Anything else? Just trying to give them some
24 things to think about. Use those ten minutes
25 productively.

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With that, let's take a break.

(Break taken.)

CHAIRMAN BAGGETT: Craig Johns trio.

MR. JOHNS: I forgot my cello. You'll excuse me.

CHAIRMAN BAGGETT: I figured a saxophone.

MR. JOHNS: Board Members, my company players will have theirs. For the record, my name is Craig Johns. I am here today on behalf of the California Manufacturers and Technology Association, Partnership for a Sound Science and Environmental Policy, and the City of Santa Rosa.

We stand here this afternoon at a late and growingly weary time after several years' work on this policy. And like others before, I would like to thank your staff and many of you for the time that's been put into this, literally thousands of hours, through the PAG process, independent of that. So Craig Wilson and staff have done a great job. He didn't put in everything or all, frankly close to all, of what we wanted. So we do have some comments that were submitted in writing. I am going to pleasure all of us by not repeating all those.

CHAIRMAN BAGGETT: Thank you.

MR. JOHNS: I would like to focus on a couple of points that seem to be of interest to some of the Board

1 Members, including the whole statistical issue as well as
2 the delisting process. And I know that Prof. Lorden will
3 follow me and a couple of speakers will speak a little bit
4 more jointly to the specifics of the binomial method and
5 why he has submitted a comment letter as to why it is an
6 even-handed approach, as he pointed out.

7 Ms. Sutley questioned earlier in the afternoon the
8 issue of why, I am just specifically on the exceedances of
9 CTR constituents, why we are setting up a different
10 process with this than what may be laid out in the CTR.
11 And I think what it gets down to, and I will cop to the
12 fact that I am not a statistician, I am not a
13 mathematician and kind of not a scientist. But I've read
14 a lot of about this over the last several months. I've
15 talked with a lot of folks about it. I'm becoming more
16 comfortable in my understanding.

17 And what your staff is trying to do by presenting
18 you with the option that they have here, this exact
19 binomial method, is to provide a process to give Regional
20 Boards, and ultimately the State Board when approving the
21 TMDLs, a confidence approach. It is not to say that one
22 hit there, one hit not there is going to be a listing or
23 nonlisting. On the point that Chairman Baggett raised
24 several times about how, even if you don't have the three
25 or the five or whatever, there are still opportunities

1 using the situation specific weight of evidence approach
2 that will allow Regional Boards to propose the listings.

3 I was struck by one of Dave Paradies' comments.
4 I've always liked listening to Dave. He is one of the
5 very reasonable folks that I have enjoyed dealing with in
6 the PAG process over the last year.

7 CHAIRMAN BAGGETT: There is his credibility.

8 MR. JOHNS: Sorry, Dave. Still love you,
9 though.

10 CHAIRMAN BAGGETT: Among his peers.

11 MR. JOHNS: The environmental community is
12 afraid of the discretion that this approach will lead to
13 the Regional Boards. And what you are going to hear from
14 some of us, and you probably read in our letters, in some
15 cases we are afraid of the discretion that you want to
16 repose in the Regional Boards when some of these issues
17 don't come straight down the line. That has to say
18 something. I know it says a lot about the approach that
19 Craig Wilson and staff have recommended.

20 But the way I look at it, going back to the point
21 you were making, Nancy, is it's kind of like, and I
22 apologize that I couldn't come up with a better analogy,
23 but in my mind this is the way it works: The insurance
24 company gives you one point if you have a speeding ticket,
25 and that speeding ticket is like popping the CTR for

1 perhaps a particular constituent. And if you don't get
2 another violation in a couple of years, that point is
3 going to come off our driving record and your driving
4 insurance rates aren't going to go up. But if you have a
5 couple of those speeding tickets, then you are going to be
6 labeled a chronic speeder, and, therefore, you are going
7 to have to pay the price for that. And what the insurance
8 companies use that point system for is to have confidence
9 in knowing that they're going to be charging the people
10 who should be charged more for insurance more than those
11 who are safe drivers or good driving records.

12 You raised another point which I want to get at.

13 MEMBER SUTLEY: On your analogy, I spent a lot
14 of time on the roads these days. Getting one speeding
15 ticket doesn't mean that's the only time you speed.

16 MR. JOHNS: Absolutely not. But we are
17 limited to what we know in terms of the monitoring
18 approach.

19 There was a questions that you raised, Ms. Sutley,
20 as how this could be legal. And folks from EPA stood
21 before you and Ms. Strauss wrote in her letter that this
22 binomial approach would be illegal and inconsistent with
23 the water quality standards in California. And really
24 what I would like to do is go back and cite -- this was in
25 the PAG letter back in February. But just in the event

1 that it has been missed, no one's brought it up, I felt
2 compelled that I should.

3 A year ago in May a District Court case out of
4 Florida, faced with a challenge by environmental groups
5 claiming that that state's adoption of the impaired waters
6 rule, adoption of the binomial approach, which is very
7 similar, actually more flexible than what staff is
8 proposing, but very similar in terms of the exceedance
9 rates and the confidence levels, the Court find there
10 specifically that the IWR, the impaired waters rule, was
11 intended to do nothing more and, in fact, does nothing
12 more, than sets forth a listing methodology to be used in
13 the TMDL process.

14 Further, that the listing methodology cannot
15 possibly have the effect or advising for water quality
16 standards or policy affecting those standards. So your
17 Board, this state, would have the benefit of knowing that
18 this issue has been challenged in at list one court that
19 has looked at it after. I should point out, EPA in that
20 region approved that approach, that this Board would be on
21 sound ground in approving it as well.

22 I want to turn very briefly to the delisting issue
23 because it is a big concern of the regulated community,
24 and I don't know if I'm going to address your issue or
25 your question specifically, Mr. Baggett. If I don't, I

1 would be happy to answer it.

2 Many in the Environmental Caucus say that the
3 proposal would result in too many delistings. And
4 throughout the PAG process we've heard their claims that
5 our claims -- that there were a lot of listings made with
6 very little or no information or inadequate data from a
7 QA/QC standpoint -- were grossly overstated and
8 exaggerated. And if that is the case, then I question how
9 many of these existing or historical listings are going to
10 have to be reviewed.

11 But having said that, the current policy that your
12 staff is proposing creates a far more burdensome
13 requirement on proponents of delisting to meet. As it
14 stands right now in your policy, you have at least 21
15 samples for conventional pollutants and at least 26
16 samples for toxic pollutants to be able to come back and
17 make an argument there should be delisting. So if want to
18 talk about looking for parity in listing and delisting,
19 which is something I thought we were all looking for, and
20 that is one of the reasons why the binomial approach seeks
21 to have a balancing of errors exemption there. The policy
22 you have right now is not even. It requires far more
23 information to get off the list than it does to get on the
24 list.

25 Notwithstanding all of the charts and graphs and

1 everything that you've seen, if you want to talk about a
2 minimum sample size to get on the list, I think, and I am
3 not going to speak for anyone else but myself on this, I
4 think the regulated community would be happy to do so.
5 But if you want to talk about what do you do with those
6 sample sets that are less than that number, whether it is
7 20, 25, 50 or a hundred, then that is where I think we are
8 going to have some problems because that is effectively
9 what this approach has sought to do, is deal with very
10 small sample sets in what I think is a very fair and
11 even-handed way. I asked Dr. Lorden to address that. If
12 you want to talk about minimum sample size of 25 to get on
13 the list, I think we'd been more than willing to do that:
14 The question of what you do with sample populations of
15 less than 25 creates a bit more of a difficulty for the
16 Regional Boards and for us as well.

17 I am going to conclude there because I know you
18 have many others who would like to speak. Unless you have
19 questions, I would be happy to try to answer those.

20 Thank you very much.

21 CHAIRMAN BAGGETT: Dr. Lorden.

22 DR. LORDEN: Good afternoon. I am Gary Lorden.
23 Briefly mentioned as a Cal Tech professor. I am chair of
24 the math department at Cal Tech. My specialty is
25 statistics and probability. I have been teaching those to

1 scientists and engineers for the last 40 years, and I do a
2 fair amount of different types of consulting. And I am
3 here today essentially as a consultant through contacts
4 with a firm called Flow Science set up by a professor
5 emeritus who is a long time friend and colleague in
6 Pasadena and through them through the California Coalition
7 for Clean Water.

8 So I am not representing the California Coalition
9 for Clean Water. I was asked by my colleague Flow Science
10 back in late January to take a look at what was being
11 proposed in this long worked on revision of the listing
12 and delisting policy under Section 303(d), and from a
13 statistical point to say what I thought of it. As my wife
14 and my colleagues at Cal Tech can attest, I can be fairly
15 critical, no matter who is paying me.

16 I took a look at it and said, "Gee, this is good."
17 And I took a look at the revision, was actually presented
18 here in this building in May in a discussion that I
19 attended with some of the regulated community, and I liked
20 the changes even better. And so I am here to, first of
21 all, say that I think the progress that has been made by
22 Craig Wilson and his staff in trying to, as I understand
23 it, come up with a rational way of analyzing at least a
24 good fraction of the listing and delisting decisions, I
25 think is a wonderful thing.

1 So let me tell you a little bit about what I
2 consider to be the role of statistics, and forgive me if I
3 sound a little defensive. Because it seems sometimes when
4 I am listening to the very good discussion that has been
5 held here today, that people think that there is a choice
6 between doing statistics or using a statistical approach
7 on the one hand and not doing it and going back to some
8 good old alternative way of doing it. I'm afraid I differ
9 on that. I think there is no alternative, but to do
10 statistics. It is just a question of whether you do it
11 explicitly and knowledgeably or whether you just put your
12 wet finger in the air and use some rule of thumb and don't
13 even calculate what the consequences of them will be.

14 So I am very much of the opinion as a professional
15 that it makes sense to try to calculate the consequences
16 of a listing policy, any form of listing policy that
17 depends on data. So let me back up and say what I think
18 the fundamentals of the approach that Craig Wilson and his
19 staff have developed are.

20 First of all, I read back in January a fairly
21 extensive treatment of alternative methods for trying to
22 use some sort of statistical analysis of data to determine
23 listing and delisting decisions. One of those was the
24 so-called exact binomial method. Others involving, like,
25 averaging, using variations of student T test and so on

1 and so forth. In my 40 years of experience in various
2 kinds of consulting, I always shutter to anticipate the
3 kinds of arguments that are going to be made when you
4 start using averages as the be-all and end-all of
5 calculations and inferences in statistics.

6 Because, especially in messy data, as often happens
7 in environmental circumstances, you get some outliers.
8 You get some unusual events. If you do averaging, it
9 influences the results to such a degree that sound
10 professionals, particularly the statisticians, don't want
11 to use the average. What do you do? You argue about it.
12 You say, "Well, this one's an outlier." "No, it isn't.
13 It doesn't meet the following test for outliers."

14 What I think is attractive, among other things,
15 about the binomial method is it basically says the
16 following: If we always had, when we measure the
17 standards in a particular water body for some contaminant,
18 if we always had results that were above the level of
19 standards so they were exceedances and bad, we would have
20 no problem. If they were always below, than we would have
21 no problem. The problem we face is that in practice we
22 fairly often get some sample results that are above the
23 standard and are bad and some are below the standard and
24 are good. What do you do in that situation? Seems to me,
25 one way or another, you've got to try to balance and you

1 have to try to measure the consequences of what you do.

2 I think a lot of the criticism that has been made
3 of tables, and they were shown in some of the projections,
4 Table 3.2 where we have what might be called the rule of
5 five, you have to get to be listed at least with five
6 exceedances or more in a sample size and range 26 to 30.
7 A lot of the objections that are made, for example, the
8 ones that are proposed to be solved by using the flat 10
9 percent, which would say if you have a sample size of 26
10 to 30 that you need three exceedances. And, yes, you
11 could have that table. But what I consider the virtue of
12 this table is I know the rationale for it and it is a
13 sensible rationale, namely to balance the two kinds of
14 error. I won't get into the technical discussion. It's
15 late in the day and I don't want glazed eyes.

16 A lot of the critics have explained it very well
17 with some of the graphs. There is two kinds of error.
18 You can have something that is basically clean, but tests
19 dirty on a few occasions and gets listed. You can have
20 something that is basically dirty but has only a few bad
21 tests and overwhelming the good tests and doesn't get
22 listed. So those are the two kinds of error. You are
23 trying to balance them. I think the staff has done a very
24 good job on making that explicit.

25 In order to make it explicit, they've done

1 something that I've recommended for 35 years teaching
2 sophomores and graduate students at Cal Tech, which is
3 basically take two pegs. One of the pegs is the place
4 where you want to be pretty darn sure that you're going to
5 make one of the decisions after you look at the data. And
6 the another peg is where you want to be pretty darn sure
7 where you're going to make the other decision.

8 For the conventionals what the staff has done, for
9 example, in Table 3.2 is to take the peg of 10 percent,
10 and that would be criticized. But the method I think is a
11 very sound one, and it is one I would have proposed if I
12 had been asked to design the system. You take the 10
13 percent level, supposedly true exceedances, is what you
14 would get if you took a lot of data nicely spread over
15 space and time in a particular water body, and if it
16 really is, hypothetically, 10 percent of the samples would
17 be bad. Then, according to this table, what you want to
18 do is rarely make the decision to list. Conversely, if it
19 really is 25 percent of the time, if you had large amounts
20 of data, well-sampled data, if it really is 25 percent of
21 the time you have an exceedance, you want to almost always
22 list. That is the goal, right. Those are the two types
23 of errors you want to control.

24 What the staff did -- and I liked it the minute I
25 heard it, and I thought about it since. It was several

1 months ago, and I like it even better now -- is to simply
2 say we want to take the listing levels, like five for 26
3 to 30 and six for 31 to 36, to be chosen so that with the
4 two pegs of 10 percent and 25 percent, we come as close as
5 possible to getting the same confidence in the results.
6 And they put in an additional standard on that, which is
7 the reason that the minimum sample size has to be 26, and
8 that is that we want to be capable of discriminating
9 between 10 percent and 25 percent. If you take a sample
10 of seven, I am here to tell that you no matter what you do
11 in terms of analyzing the data, you have a very, very good
12 chance of being wrong, whether it is 10 percent truly or
13 25 percent truly. You have a very, very good chance of
14 being wrong.

15 So the way they did it was to set a standard of 80
16 percent confidence or 20 percent error probability. They
17 would only use the standard in the table. They would only
18 list the exceedances in the table when it was possible by
19 choosing listing levels to have less than 20 percent
20 chance of falsely listing something that shouldn't have
21 been listed and less than 20 percent chance of failing to
22 list something that should be listed. That was the
23 approach. It makes wonderful sense.

24 If you ask: What do we do if we don't have large
25 enough samples? As an outsider, I say take more data.

1 That's the sort of thing that statisticians say all the
2 time. Naively, when I first looked at this situation and
3 read the write-ups and justifications and choices that
4 were considered before going with the exact binomial
5 approach, what I said to one of my colleagues was why
6 don't they have a situation where instead of making a hard
7 decision, hard in the sense of yes/no, you either list or
8 delist.

9 If you have something that is worrisome with a
10 sample of eight or ten or 12, and it is not high enough to
11 come up to the level of five that puts you on the list for
12 the conventionals, well, why not have some sort of
13 monitoring program that kicks in, some sort of watch list.
14 Well, it turns out there is a terminology called planning
15 list, and some states do that. As a statistician, to me
16 that makes a lot of sense, and it is the natural answer to
17 the concern that there is insufficient data and always
18 incentives not to test. Why let people act on an
19 incentive not to test. Why not say your data is looking
20 worrisome, you have to test. To me that just seems like
21 the only sensible way to look at it. You have to require
22 people who have scary data to make further tests. That is
23 what doctors do. That's what scientists do. Why not do
24 it in this context?

25 It seems to me we need to separate a number of

1 issues. One of the issues about which I, as you might
2 suspect from listening to me, have little doubt is that an
3 approach that explicitly calculates the chances of being
4 wrong. The so-called statistical makes the most sense.
5 Simply throwing in a 10 percent rule and take what you
6 get, and it doesn't matter whether you are much to often
7 making mistakes, to a scientist or a statistician that is
8 not good practice. Good practice means that you look at
9 the consequences of setting up your structures. And the
10 structure that counts here are these tables.

11 And so what I strongly support is that the staff's
12 good work on this, which I really think is unusually good,
13 because when I read what regulatory bodies and companies
14 and colleagues do in setting up statistical protocols,
15 which is one of my real specialties and how should you
16 design statistical protocols to accomplish what you want,
17 typically I disagree with them rather strongly because
18 they don't accomplish anything rational. They have no
19 clear rational goal of what we are trying to accomplish.
20 This has a very clear rational goal. It makes really good
21 sense statistically, and I think it should be continued.

22 So to address the arguments that many critics have
23 made, if the concern is that the rule of three is too much
24 or something like that, well, change the peg. If it is
25 not good at 5 percent and 20 percent, make the argument

1 that the pegs should be two other values. What will come
2 out of that, using the same statistical approach, very
3 likely is a rule of two. I think from what I heard today,
4 if it were rule of two instead of a rule of three, the
5 objections would go away. So let's agree what I think we
6 can agree on, which I think makes sense to have a
7 statistical evaluation of the performance of such policies
8 and to have, as the Chair said, for low hanging fruit kind
9 of a backbone, normal way of doing business makes sense.
10 Certainly, analyzing multiple lines of evidence, special
11 circumstances, using discretion, even as the Chair, once
12 again, pointed out, if there is a federal standard that
13 says twice in three years on toxics and you're bad, I
14 don't see why that can't be applied on top of the
15 consequences of this table. Some of the time that is
16 going to be more stringent than the table. Some of the
17 time it is going to be less stringent. Because the table
18 allows for accumulating data over a longer period than
19 three years. I just think you have to look at things from
20 the point of view of what you are trying to accomplish,
21 design what you're doing. I think this is a really,
22 really good piece of progress that's been made by the
23 staff in trying to do a rational job.

24 Thanks very much.

25 CHAIRMAN BAGGETT: Thank you.

1 MEMBER SUTLEY: I just have one quick
2 question. I think a quick question. I hope it is.

3 DR. LORDEN: There are no quick answers from
4 me, but I will try.

5 MEMBER SUTLEY: I know the danger of asking a
6 professor.

7 CHAIRMAN BAGGETT: Cal Tech people, we are
8 well aware.

9 MEMBER SUTLEY: You mentioned that the small
10 sample size is, and everybody would agree, probably using
11 statistical tests, I am wondering if you looked at the way
12 that this was presented with respect to the sort of
13 minimum sample size before you would actually want to use
14 the binomial approach, if you have an opinion about that.

15 DR. LORDEN: Yes. I don't agree that the
16 problem is whether to use statistics or not. In any
17 systematic policy you are going to be using statistics.
18 It is just a question of what calculations you do to try
19 to decide what your critical levels are for listing or
20 not. It seems to me that the problem with the small
21 sample sizes is that you are very likely to be wrong, one
22 way or the other. And so I don't think there is really
23 any rational remedy for that, except to take more data.
24 And wouldn't it make sense to just require that in some
25 way, that the data be taken on an accelerated basis to

1 bring it up to the level where you do have the ability to
2 discriminate what is true and what isn't true.

3 MEMBER SUTLEY: Well, I am not sure we have
4 that discretion. But having said that, I don't know,
5 maybe this is not fair question, but is there sort of a
6 magic number at which you feel you have enough data,
7 enough samples, to calculate using the binomial method,
8 would yield a meaningful answer?

9 DR. LORDEN: It is always meaningful. It is
10 just that it is very vague to have small numbers. And it
11 isn't a characteristic of using binomial or some other
12 statistical calculation, like averaging or maxima or
13 anything like that. So it is just a question of, if you
14 have limiting information, the answers are vague and the
15 inferences are vague.

16 What I could say is I think it is perfectly
17 reasonable in the discretion of a Regional Board, for
18 example, to look at the facts when there is too little
19 data and to use judgment. I think it certainly makes
20 sense to put pressure, as much as can be done within the
21 existing systems, to try to keep that from happening,
22 where you get into a situation where there are very small
23 amounts of data. Or at least would it be impossible for
24 the Board to say, the State Board or the Regional Board,
25 there is a big argument because this is a sample data set,

1 but it looks worrisome. Go in and get more data or we are
2 going to have to list you. That is what I would do.

3 CHAIRMAN BAGGETT: That is not an uncommon
4 practice.

5 Now the saxophone. The accordion.

6 MR. ARRIETA: Good afternoon, Mr. Chairman,
7 Board Members. My name is David Arrieta. I am here
8 representing Steve Arita with the Western States Petroleum
9 Association. He was here this morning and had to leave
10 for another engagement, so he apologizes for not being
11 here.

12 Actually, I have been the person that has been
13 involved in this process with the PAG for the last umpteen
14 years, and it's been a long, arduous road to the point
15 that we are at today. And I thought that we were getting
16 very close until about an hour and a half ago or so. And
17 the issue is we think that we need a statewide policy that
18 can address waters in a uniform manner across the state so
19 that we are evaluating the decisions in a similar manner.
20 So we would like to say that the PAG -- the regulated
21 members of the PAG sent you some comments. We thought
22 they were kind of tweaking comments that were trying to
23 fine-tune the policy. And we were hoping that after that
24 review and consideration of the those comments that you
25 would go ahead and move toward to adopt the policy sooner

1 rather than later because the two or four list is upon us,
2 and we need this guidance, this document, so that we are
3 all looking at listing from a consistent basis. With that
4 I will close.

5 Thank you.

6 CHAIRMAN BAGGETT: Thank you.

7 Now a duet, Bobbi Larson and Sharon Green.

8 MS. LARSON: Thank you, Mr. Chairman and
9 Members. I am Bobbi Larson. I am here today on behalf of
10 the California Association of Sanitation Agencies. I will
11 try to keep my comments brief, if I can.

12 The first thing I would like to do is compliment
13 the State Board on the process. Even if you're hearing a
14 lot of anxiety or agitation about the result, I do think
15 it is worth commenting that the process that the Board has
16 used has been a very open one. There have been multiple
17 drafts, multiple opportunities for people to comment,
18 including an informal early venting with the PAG. I think
19 your staff has been very accessible, willing to come and
20 speak to people about the policy, to answer questions, to
21 get comments and input.

22 So where do we end up in this thing? I do think
23 that a great deal of thoughtful work has been done by the
24 staff and that should not go unacknowledged. I think this
25 is just a very difficult policy issue for the Board to

1 wrestle with. I am so appreciative of what the staff has
2 done that I almost hesitate to send my letter saying
3 please make 23 changes to the policy. But I did anyway.

4 So I do want to say, too, that we support many
5 aspects of the proposed policy. Not to belabor it, but
6 the use of the statistical process and the binomial
7 approach. And I just want to echo what Craig Johns said,
8 that we do believe that this policy is legally sound. It
9 has been used in other states. Arizona, Florida, Texas.
10 I know that there has been some comment about how that
11 relates to the water quality standards. But I know that
12 in at least some of those states the once in three years'
13 exceedance standard is also applicable to their water
14 quality standards.

15 So I think that the legality of the issue shouldn't
16 really be what you are concerned with. It should be the
17 appropriateness of the policy and that, of course, is your
18 decision.

19 CHAIRMAN BAGGETT: Litigation has never been
20 something to stop us from making a decision.

21 MS. LARSON: True. And I do want to also say
22 that I think there are many improvements in the policy
23 that go toward one of the principle goals, which is to add
24 clarity and transparency, something that Dave Paradies
25 mentioned, particularly in terms of the detailed fact

1 sheet and those kinds of things which really, I think,
2 will make it easier for anyone to understand how something
3 ended up on the list.

4 Finally, I do think it is very important that we do
5 have the kind of specificity with regard to delisting as
6 well as listing that is proposed in the policy. I was
7 under the impression that the goal of the Board was to
8 have some kind of parity or equivalence in terms of
9 listing and delisting. I think it's been pointed out that
10 we think the existing policy actually does impose a
11 heavier burden on delisting, but it is a burden that we
12 think is appropriate.

13 CHAIRMAN BAGGETT: How do you respond to the
14 earlier PowerPoint? So close, which is always one of my
15 concerns. You can end up literally with year to year,
16 just change every other.

17 MS. LARSON: That is troublesome, and I might
18 perhaps see if staff has a particular answer to that, but
19 I think that may be the direction that the Board has been
20 discussing going in, perhaps some kind of minimal sample
21 size might help with that kind of bounce back. And maybe
22 -- I don't --

23 Heather, do you want to respond?

24 A couple other speakers are a little more familiar
25 with the specifics of the policy that might be able to

1 answer your questions better than me. I think that the
2 critical point from our standpoint is that historically it
3 has been our experience that once you are on the list you
4 stay on the list. And it is very difficult to change
5 that, regardless of what the basis for the initial listing
6 was.

7 CHAIRMAN BAGGETT: It should be more difficult
8 to get off than to get on, it seems to me.

9 MS. LARSON: I guess, we should clarify what
10 we mean by more difficult. I think because of what has
11 been spoken to earlier, the level of confidence that we
12 need to have, it would be by definition, you will need
13 more samples, you will need more data. So in that sense,
14 it will be more difficult. But the confidence level
15 should be the same. They should be just as confident when
16 you are delisting as when you are listing.

17 Again, I am not a statistician. I don't understand
18 how that works. That's been sort of our understanding, is
19 that you want the same confidence level in your delisting
20 decision as you have in your listing decision.

21 And I do wanted to speak to one of the comments
22 that was made earlier which is that there aren't any
23 consequences from listing, so you should put everything on
24 the list. There are no some costs or anything.

25 CHAIRMAN BAGGETT: That would be the easiest

1 thing at this point. We just list all the water bodies.

2 MS. LARSON: You all know, as well as I do,
3 there are some very real consequences of being on the
4 303(d) list, particularly if you're a permitted point
5 source. There are interim permitting requirements. There
6 are limitations on your sources. And in addition, there
7 are resource issues for all of you and for all of us. I
8 would caution the Board that the whole purpose of going
9 down this road, I think, although you may all be
10 regretting it now, of having a listing policy, is that we
11 are going to have some rigor with regard to where we are
12 going to spend our resources over the next ten or 13 years
13 in developing TMDLs.

14 So those are some of the things we like about the
15 policy. And I guess now I will squarely contrast my
16 comments with those of EPA and some of the environmental
17 commenters in that in our view this current draft is in
18 many ways a step back from the prior draft policy. We
19 think maybe the flip of what Dave Smith said, we think you
20 have gone too far in sacrificing analytical rigor for
21 adding back in broad discretion. And what we try to ask
22 ourselves, many folks in the regulated community are very
23 interested in getting a policy done, getting some clarity.
24 We had to ask ourselves: Do we think that the state is
25 better off with this policy than without it? And we have

1 a hard time answering that question. I think our goal in
2 going into this was if you have two Regional Boards with
3 exactly the same information sets, if they went through
4 the policy, they would reach the same conclusion. And I
5 am not sure that we can say with any confidence under this
6 policy that would happen.

7 I think the policy is moving a little further from
8 the Board, I thought, articulated goal of having a list of
9 waters for which TMDLs will solve the problem. And
10 whether we like it or not, once these waters go on the
11 list, I think there will be a presumption that a TMDL will
12 be developed for them. I don't think this idea that we
13 should just put everything on that and sort it out later
14 is a concept that we can support. That said, I think if
15 you go any further toward loosening this policy up, you
16 might as well not have one, because that is in effect what
17 you are going to do.

18 So I just want to say that I agree with the
19 observation that the Chairman made earlier. It is
20 certainly my reading of the policy that the binomial or
21 statistical approach and the listing factors are just step
22 one, as Craig Wilson said. And then there is step two,
23 which is the situation specific weight of evidence, where
24 you can list something that meets none of the listing
25 factors provided you make a case for it.

1 Now that is something we are not crazy about. We
2 don't like it. We think that is a loop hole. But I don't
3 understand how other people can come up and be so agitated
4 about the first part of the policy when that part of the
5 policy is clearly there and it has an equivalent way in
6 terms of whether or not you get on the list or not. I
7 guess I agree with your reading of the policy that the
8 formal listing factors are not a barrier to listing
9 something that is impaired for whatever reason, even if it
10 doesn't meet those statistical thresholds.

11 So what is it that we want you to do? I always
12 regret coming in front of this Board without a very clear
13 recommendation. I like it when I can come up and say,
14 "Please make these two changes and we will be happy and we
15 will be able to support the policy." Unfortunately the
16 things that we are concerned about in the policy are sort
17 of -- there is a whole laundry list of things where we
18 feel the policy has been loosened up, where it is not as
19 rigorous as it was. So I realize now, today, though, that
20 after listening to all the testimony, that everyone is, as
21 Craig Johns said, afraid.

22 The environmental community is afraid that the
23 discretion will not be used in a way that we capture all
24 the waters that should be listed. We're afraid in the
25 regulated community that that discretion will be abused

1 and things will be listed that are not truly impaired.
2 Maybe you're just going to have to bite the bullet here
3 and make the policy decision that you're going to give
4 this thing a try, that it is a better policy than we have
5 historically, because we've had none. And maybe we ought
6 to maybe just road test the thing, get it adopted and see
7 how it works in practice. Because it is your policy, you
8 can change this thing in a year or two years. I'm sure
9 you want to go through this again. I think a lot of what
10 you're hearing is speculation from all of us about what
11 will happen under this policy.

12 CHAIRMAN BAGGETT: You're just lucky that our
13 windows don't open, or we'd lose some good staff.

14 MS. LARSON: I know you have a very difficult
15 decision. I guess I just want to weigh in. Despite all
16 of the concerns that we've raised about this particular
17 draft of policy, and I do want to urge you to ask your
18 staff to take a hard look at those and see if some of
19 those improvements can be made. The bottom line is sooner
20 or later we ought to get on with it. And we do have a
21 2004 list to do. I am not sure that further delays and
22 further wrangling like this is going to get you any closer
23 to something that everyone is comfortable with.

24 CHAIRMAN BAGGETT: I think it is our intent to
25 get something adopted this month.

1 MS. LARSON: I would support that.

2 Thank you.

3 CHAIRMAN BAGGETT: What, remains to be seen.

4 MS. GREEN: Good afternoon, Chairman and
5 Members of the Board. I am Sharon Green. I'm here today
6 as chair of Tri-TAC, a publicly owned treatment works
7 regulatory advisory group that examines a wide range of
8 issues affecting wastewater treatment agencies in
9 California. I have to say there is not much left to say
10 on this matter from my point of view, that my colleagues
11 have pretty much covered most of the major points. I did
12 have a couple of things I wanted to try to briefly
13 mention, but really I do feel that the most important
14 points have been made and I appreciate the difficult
15 policy choices before you. I think that we all agree
16 there are tradeoffs to be made, and maybe it's just time
17 to kind of put the line down and make those choices and
18 see how it works.

19 I think that the two quick points that I wanted to
20 touch on, one of them has to do with the notion which
21 comes out of federal regulations that states must evaluate
22 all existing and readily available data and information.
23 The federal regulations require states to assemble and
24 evaluate all existing and readily available data and
25 information. And this is an important requirement and

1 obviously you have to comply with that. We recognize
2 that.

3 But we are concerned about some of the changes that
4 were made in this version of the policy that seem to
5 undermine the evaluation component and suggest that any
6 information must be used for listing purposes. We think
7 that the data quality requirements and spacial and
8 temporal representativeness requirements and some of those
9 things are good screening tools to make sure that you
10 really are getting a true picture of water quality, and
11 that the assemble and evaluate portion of this should not
12 be lost.

13 And furthermore, there was also in 2001 the Budget
14 Act Supplemental Report language requiring that the
15 listing policy include criteria to ensure that the data
16 and information used are accurate and verifiable. I think
17 that this, obviously, has to be woven into that. So that
18 is all I am going to say on that. There is more on that,
19 I think, in some of our comments.

20 The other area -- I actually hadn't really planned
21 to talk about this, but since it's come up as such a
22 critical issue of how the water quality standards
23 themselves relate to the assessment of attainment of those
24 water quality standards -- I guess I just want to say a
25 couple of things that relate more to the standards

1 themselves.

2 I guess, first off, it is important to remember
3 there are different types of standards, and even within
4 toxic pollutant standards there are different types.
5 There are the aquatic life standards. Some are four-day
6 average concentration values. Some are one-hour
7 concentration values. There are human health standards
8 that have an entirely different basis. They don't have, I
9 don't believe, the once in three-year exceedance frequency
10 built into them that the aquatic life standards do. They
11 are based over a lifetime of individuals consuming either
12 drinking water at two liters per day or consuming fish on
13 an assumed rate of fish consumption.

14 And so it is not quite so simple to just say if you
15 exceed them more than once in three years you know it's --
16 you know that the standards are violated and there is a
17 use impact.

18 The second point I would make is that I think we
19 all know that the basin plans which contain the beneficial
20 use designations, for the most part aside from the ocean
21 plan, that they were mostly done in the '70s. There have
22 been some refinements. In many cases those were done on a
23 sweeping basis without a lot of site-specific
24 consideration, in many cases. I am not saying all the
25 water bodies, but certainly in many instances. And they

1 are not necessarily as refined as we might like them to
2 be, and the corresponding water quality criteria or
3 objectives, depending whether they are state or federal,
4 are also not necessarily refined on a site-specific basis.

5 And the last point is that, in developing those
6 water quality criteria or objectives, there is often a lot
7 of layers of conservatism built in, which really mean that
8 if you exceed once it doesn't necessarily mean there is an
9 impact. You may need to have the larger body of data to
10 really see what is going on in the water body, and you may
11 need to have more refined standards to really know what
12 are the levels at which impact will occur.

13 So with that, I will conclude. If you have any
14 questions, I would be happy to try to answer them.

15 MEMBER SILVA: Bill Busath.

16 MR. BUSATH: Close, but I wrote it so I can't
17 complain how you pronounce it. My name is Bill Busath.
18 I'm here today in my capacity as vice chair of the
19 California Stormwater Quality Association, CASQA. You're
20 familiar with CASQA and the role that we've played over
21 the years in assisting the State Board with development
22 and implementation of the stormwater permitting process.
23 And we appreciate opportunity to provide comments on the
24 proposed 303(d) listing policy.

25 As you know, we participated with comments in both

1 the July and December versions, and I submitted some
2 written testimony so I'll be summarizing with my verbal
3 testimony.

4 As we previously stated, CASQA supports the State
5 Water Board's goal to establish a standardized approach
6 for developing California's Section 303(d) list. The
7 process employed in developing the 2002 list was a vast
8 improvement over the process used in previous years. And
9 like the regulated caucus of AB 982 PAG, we would like to
10 see the State Water Board adopt a final statewide policy
11 as soon as possible.

12 However, we have some concerns. First, I will
13 just be talking about three specific areas. First, CASQA
14 is concerned that the July 2004 draft policy seems to
15 ignore the requirements of 40 CFR, Section 130.7(B)(4)
16 and, therefore, does not fully comply with the federal
17 regulations for implementing Section 303(d) of the federal
18 Clean Water Act. This requirement is very clear: The
19 listing shall include a priority ranking and also identify
20 the pollutants causing or expected to cause violations of
21 the applicable water quality standards.

22 In terms of identifying pollutants, two things are
23 clear to CASQA. One, the conditions or symptoms, like
24 nuisance, water odor, taste, excessive algae growth, foam,
25 turbidity and color, could be used to list water segments

1 under the draft policy are not pollutants as defined in
2 the Clean Water Act and Porter-Cologne. And two, the
3 State Board must publish a list for the purpose of 303(d)
4 compliance that identifies pollutants for all water
5 quality limited segments listed.

6 Second point is that 40 CFR, Section 130.7(B)(4) is
7 clear that the list must include a priority ranking. Yet
8 in issue eight of the FED priority ranking of TMDL
9 completion schedule the recommended alternative three
10 blurs the distinction between these two separate actions,
11 priority ranking and TMDL scheduling. The point of again
12 seeming to ignore the federal regulation and
13 mischaracterizing U.S. EPA guidance. U.S. EPA's guidance
14 does not speak to 40 CFR, Section 130.7(B)(4) and only
15 provides guidance for TMDL scheduling, presumably because
16 the regulation is so clear that the list shall include a
17 priority ranking that no further guidance is necessary on
18 that requirement.

19 As a result, CASQA believes that the draft policy
20 is missing a methodology for complying with the
21 requirement under 40 CFR, 130.7(B)(4), that the list shall
22 include a priority ranking. To comply with this priority
23 ranking requirement, CASQA believes that the State Water
24 Board should seriously consider the methodology for
25 developing a numerical pollutant severity score proposed

1 by Armand Ruby, alternate CASQA representative to the AB
2 982 PAG. We understand that introducing a new methodology
3 at this point of the process may seem challenging and may
4 be infeasible, but, again, we believe the draft policy is
5 currently lacking a methodology for meeting the priority
6 ranking requirement, and we believe that the proposed
7 methodology is compelling enough to warrant serious
8 consideration.

9 The third point is that CASQA believes that the
10 scope of the July 2004 draft policy is overly ambitious
11 and attempts to do -- to be too many things to too many
12 stakeholders, resulting in a draft that unduly complicates
13 the definition of a 303(d) list and is inconsistent with
14 federal regulations implementing this portion of the Clean
15 Water Act, and as a result it produces a definition of a
16 303(d) list that will be virtually impossible for
17 disparate and otherwise reasonable stakeholders to
18 understand, let alone accept.

19 The Section 303(d) list is supposed to do three
20 things. First, list the water quality limited segments
21 and associated pollutants in a priority ranking, and that
22 is what it is supposed to include, and also including
23 waters targeted for TMDL development in the next two
24 years.

25 CASQA believes the current draft does not provide a

1 methodology that meets even these basic criteria, and yet
2 the policy attempts to go beyond them by creating more
3 than one category and subcategories of lists within the
4 303(d) list. These categories and subcategories belong on
5 the State's Clean Water Act Section 305(b) report. In
6 fact, they are statutorily required under Section 303(b).
7 To avoid these regulatory mistakes and the impending
8 confusion they will cause, CASQA recommends three steps.

9 First, make all necessary revisions to the draft
10 policy so that all sections are consistent with the
11 federal definition of the 303(d) list. Second, develop a
12 305(b) reporting policy that dovetails with the front end
13 of the 303(d) listing policy and provides an appropriate
14 regulatory home for many of the categories and
15 subcategories of water segments that under the current
16 draft 303(d) listing policy would be inappropriately
17 lumped in the 303(d) lists. And three, adopt a version of
18 the draft Water Quality Control Policy for addressing
19 impaired waters that dovetails with the back end of the
20 303(d) listing policy. Again, this policy would provide a
21 home for some of the categories and subcategories of water
22 segments.

23 The combination of a comprehensive 305(b) reporting
24 policy and a clear 303(d) listing policy and adaptive
25 Water Quality Control Policy for addressing impaired

1 waters should give the State Board and the environmental
2 community and the regulated community a legally structured
3 and clear set of lists to help guide water quality
4 management in California.

5 Thank you for the opportunity to present our
6 comments. You have our written comments, also.

7 Any questions?

8 MEMBER SILVA: Thank you.

9 Richard Watson.

10 MR. WATSON: Thank you, Vice Chair Silva and
11 Board Members. Actually I would like to make my
12 presentation and Jim Scanlin's card in front of you, just
13 handed me something and asked me if I would try to present
14 three or four comments for him.

15 Today I am before you representing the Coalition
16 for Practical Regulation, which, as you know, is a group
17 of 43 small and medium sized cities in Los Angeles County
18 that have come together to address water quality, water
19 quality policies/issues. I would like to thank you for
20 the opportunity to comment on the July 22nd draft of the
21 Water Quality Control Policy.

22 First, we also commend the State Board and staff
23 for the progress that you have made in developing a
24 listing process. We continue to enthusiastically support
25 the Board's goal of standardizing the listing procedures.

1 The enhancements that your Board made with the 2002 list
2 were very good, and those were manifested in the July 2003
3 document. The Coalition for Practical Regulation also
4 strongly supports the continued emphasis on basing the
5 listing and delisting decisions on sound statistical
6 evaluation. The revised binomial distribution approach
7 balances the type one and type two error rates, which was
8 a major issue in earlier discussions, and really should be
9 acceptable to all parties that support a technically sound
10 listing and delisting process.

11 However, the Coalition's concerned that the draft
12 before you today retreats further from the July 2003 draft
13 and moves back towards the pre-2002 procedures that gave
14 great flexibility to Regional Boards and resulted in many
15 erroneous listings. Today, in the interest of time, I
16 will address only one key issue. In addition, I want to
17 affirm our strong agreement with the technical comments
18 made by CASA and the regulated caucus, and I also want to
19 include our previous comments by reference.

20 The one key issue is a need to identify pollutants.
21 The Coalition is concerned that the draft policy still
22 inappropriately allows the water body segments to be
23 listed without a pollutant being identified. Someone said
24 earlier something about a presumption that once listed a
25 TMDL will be prepared. There is not just a presumption.

1 Federal regulations in 40 CFR 130.7(c)(1) requires that
2 TMDLs be prepared for each water quality limited segment.
3 However, TMDLs cannot be prepared unless a pollutant
4 causing impairment has been identified. Therefore, water
5 body segments should not be listed unless a pollutant has
6 been identified, because only then can you really develop
7 a TMDL that is required.

8 The July draft policy specifically allows a water
9 body to be listed for toxicity, which is another concern
10 of ours, without the pollutant being identified. This
11 appears to be based on what I call a misinterpretation of
12 40 CFR 132(i), which specifies that a TMDL may, quote, be
13 expressed in terms of either mass per time, toxicity or
14 other appropriate measure. Our interpretation is that
15 expressing a TMDL in terms of toxicity means using toxic
16 units to express acute or chronic toxicity of the
17 identified pollutant that is causing the toxicity. It is
18 not a substitute for the requirement in 40 CFR 130.7(a) to
19 provide, quote, a list of pollutants to be regulated.
20 Furthermore, the Functional Equivalent Document doesn't
21 sufficiently address the potential adverse environmental
22 impacts of listing a water body segment for toxicity alone
23 without identifying the pollutant.

24 In addition, the draft policy allows water segments
25 to be placed in the Section 303(d) list if, quote,

1 qualitative assessments of the water segment for nuisance,
2 water color, odor, taste, excessive algae growth, foam,
3 turbidity, oil, trash or color, meet a number of specified
4 conditions. Not one of those conditions requires the
5 pollutant to be identified. And there is similar
6 provisions dealing with adverse biological response and
7 degradation of biological populations and communities. We
8 think that pollutants must absolutely be identified to be
9 consistent with the federal regulations. Therefore, we
10 request that you direct your staff to remove all
11 references to all listing of a water body segment without
12 the pollutant or pollutants being identified. I think
13 this is particularly important if you make any changes in
14 this statistical approach that is being discussed.

15 Thank you very much.

16 Mr. Scanlin was attempting to address a question
17 that Ms. Sutley had. And he was talking about -- I think
18 the question he had was the consistency between the CTR
19 and three allowable exclusions, and the question does
20 water body meet standards. He made a point about
21 sampling. He said when taking a sample that is
22 representative of a water body in a particular period,
23 there are two sources of uncertainty. One, taking a very
24 small sample that represents a large body of water. His
25 example was San Francisco Bay. And two, the chemical

1 analyses aren't 100 percent accurate. He indicated in
2 some tests you can use plus or minus 20 percent allowable
3 and some tests plus or minus 50 percent is allowable of
4 the actual value.

5 He said those are not unusual. He thinks those are
6 pretty good reasons for saying that if you had just one or
7 two tests, you may not have actually been in an impaired
8 water body. So he says that due to these uncertainties he
9 does not believe having two samples result in better above
10 the CTR, determine that a water body is not impaired and
11 not -- it is not inconsistent, anyhow.

12 Thank you very much.

13 MEMBER SILVA: Thank you.

14 Heather Lamberson.

15 MS. LAMBERSON: Good afternoon. My name is
16 Heather Lamberson. I am representing the Los Angeles
17 County Sanitation Districts, and we are a wastewater
18 entity that operates 11 treatment plants in Los Angeles
19 County. We discharge to a number of waters that have been
20 listed for various constituents, and we have also
21 participated in a number of TMDLs. So we take the listing
22 process very seriously.

23 We appreciate the efforts that the State Board has
24 made to include policy provisions that increase
25 consistency and clarify the listing process. And we

1 encourage the State Board to stick to these goals of
2 clarity and consistency, and we think the end result will
3 be a better process that is scientifically valid and also
4 objective. We submitted detailed comments and in general
5 these comments recommend changes that call for a policy
6 that is probably more reflective of what was in the
7 December 2003 version. And we encourage the State Board
8 to make these recommended changes because we believe that
9 it will reintroduce elements of clarity and consistency
10 that are currently missing.

11 Many of the changes that we recommend seek to
12 minimize the area of uncertainty, and Richard just
13 mentioned a couple. For example, natural variation within
14 a population, temporal and spacial variability,
15 measurement error and also analytical error. By
16 reinstilling the elements that have been removed from the
17 policy, such as the minimum number of samples, the data
18 age requirements and provisions that require adequate
19 temporal representation and quality assurance
20 requirements, by reinstalling those elements, we think you
21 can address some of those areas of uncertainty.

22 Regarding the overall statistical approach, I don't
23 think that it is realistic to expect that any assessment
24 or listing methodology will identify all impaired waters
25 with perfect certainty. But we think that with the

1 incorporation of these recommended changes that the policy
2 may be a better process that will lead to a more reasoned
3 and consistent decision-making. We also think that having
4 a level playing field for listing and delisting is
5 important, particularly because some of the historical
6 listings, there maybe little confidence that the water
7 body is actually impaired, even though it is assumed to be
8 so solely due to the fact that it is on the list.

9 We have also -- and Bobbi talked a little bit about
10 this, about the cost of listing. We have seen through the
11 TMDL process that there has been a reluctance to reconfirm
12 the listings, reevaluate the listing during the TMDL
13 process. We think that is why it's particularly
14 important to make sure that listing and delisting are
15 considered on an equal basis.

16 And with that I would just like, I guess, to
17 address what Bobbi had said earlier. I think that as far
18 as listing and delisting, sort of this loop that you get
19 into, I think that having minimum data requirements will
20 go a long way towards eliminating those kinds of
21 situations. With a larger sample size you are able to
22 minimize those areas of uncertainty, measurement error,
23 natural variability that you see within a population. I
24 think with the larger sample size you are better able to
25 distinguish those. So I think that will help sort of

1 avoid the situations of getting back and forth on the
2 list.

3 Thank you.

4 MEMBER SILVA: Thank you.

5 Armand Ruby.

6 MR. RUBY: My name is Armand Ruby, and I am an
7 alternate member of the AB 982 PAG representing municipal
8 stormwater agencies. I'd also like to commend Craig and
9 other State Board staff for the efforts in bringing order
10 to the chaos that has in the past been the 303(d) listing
11 process. Nonetheless, I will join my voice with others in
12 saying that I do believe there is room for improvement in
13 the policy that has been drafted.

14 My background is as a scientist that has worked in
15 water quality field for about 25 years now. And I would
16 like to suggest some technical improvements to the way
17 that the policy has been written.

18 I have developed a proposed approach that includes
19 elements, key elements, of the proposed policy, including
20 binomial distribution decision-making process. But my
21 proposal brings additional scientific rigor to the
22 process. I am basically recommending integration of all
23 available information, not just by compiling and
24 especially not just looking at them sequentially as the
25 current policy proposes, but to look at them in an

1 integrated fashion.

2 The main impetus for this proposal is that the
3 current policy does not, in fact, constitute a weight of
4 evidence approach. Simply looking at all the available
5 information in categories that are set out in the policy
6 does not in itself constitute a weight of evidence
7 decision-making process. And so what I am recommending in
8 my proposed alterations to the technical approach are
9 integrating all the information within essentially a
10 matrix that allows two things to happen.

11 One is a listing decision will be made as to
12 whether a water body belongs in the 303(d) list of
13 impaired waters; and then, secondly, as was discussed by
14 Bill Busath for CASQA, there will be a priority ranking
15 which is also required under the 303(d). And that the
16 first process, the listing decision, is accomplished by
17 compiling the information in asking three questions.

18 First of all, is there a documented exceedance of
19 pollutant specific criteria or objective that meets the
20 established criteria within the specified period. And
21 criteria I am referring to are very similar to what is
22 laid out in the existing policy right now, use of the
23 binomial distribution and so on for decision-making points
24 based on the number of samples.

25 Second question: Is there a document of evidence

1 of beneficial use impairment within the specified period.
2 And then thirdly, is a pollutant from which a qualified
3 criterion or objective exceedance is documented is likely
4 to be the cause of the observed beneficial use impairment?
5 In other words, what I am trying to do is build a weight
6 of evidence approach that requires a numerical -- an
7 exceedance of numerical or narrative water quality
8 objective coupled with evidence that the pollutant has
9 been measured in exceedance is also creating an actual
10 impairment to the water body. And that the third question
11 does link the pollutant in question with the impairment
12 question B.

13 The second goal of my proposed revisions would use
14 the same set of information that are compiled in answering
15 those questions and developing a matrix where -- a
16 weighted matrix, where all of the evidence would be
17 compiled, weighted and summed, so that you end up with a
18 pollution severity score, which essentially is word for
19 word what is required under Section 303(d) of the Clean
20 Water Act.

21 You have -- I submitted by the prior deadline these
22 memorandum outlining the process. And I'd just like to
23 conclude by saying that a lot of the discussion today with
24 respect to the discrepancy between the California Toxics
25 Rule, the one-three year exceedance level and the 10

1 percent level that is currently in the proposed policy for
2 toxics is a tacit admission that an exceedance of water
3 quality objective by itself is not sufficient evidence
4 that a water body is impaired.

5 And I would like to expand on that tacit admission to
6 say that a water quality exceedance, an exceedance of a
7 water quality objective without additional evidence that
8 the water body is impaired is insufficient to list. And
9 the reason for that is that there are many mitigating
10 circumstances within the real world that can cause a
11 chemical that is measured in exceedance of objective not
12 to actually have a measurable detrimental effect. And the
13 levels at which the objectives are set are based on
14 essentially laboratory studies in which those
15 environmental mitigating factors are not accounted for.

16 Thank you very much for the opportunity to provide
17 these comments.

18 MEMBER SILVA: Thank you.

19 MR. THOMAS: Thank you. I, too, had the
20 pleasure to be on the PAG through 400 meetings in ten
21 years or however long they went.

22 MEMBER SILVA: Only seemed that way.

23 MR. THOMAS: Thank you, Mr. Silva. On that I
24 represented one of the few nonpoint source, the folks
25 representing the California Cattlemen's Association. So a

1 perspective that we shared early in the PAG, and Craig
2 could bear this out as others. We said don't get wrapped
3 up forever on the questions of listing and delisting.
4 We've got an awful lot of things to do in getting these
5 TMDLs together. How soon can we get them developed? How
6 do we prioritize them? What should we do on updated
7 monitoring if the listing was on old data? How do we deal
8 with mitigation and implementation plans?

9 I was reflecting back as I was listening to a lot
10 of testimony that we're a long ways down the road and we
11 still seem to be wholly wrapped up over listing
12 considerations, not that they are not important. But you
13 have done awful lot of work as a Board and as a staff to
14 put this together, and it sure seems to me that it is
15 clear that you can continue the process of tweaking and
16 tweaking and tweaking and you are not going to find
17 Nirvana in this. Some people are, in fact, probably just
18 jacking you around developing records for a lawsuit they
19 are already intending. Don't disappoint them. Bring it
20 to a close. It has to move to that forum.

21 What I really wanted to say, and the only reason
22 that I got up is I was motivated by U.S. -- Region 9's
23 comments. I think that it's time to bring this to a
24 close. It is disingenuous for them to keep trying to push
25 the matter forward. We are so farther along in California

1 than in many other places of this nation, all within EPA's
2 jurisdiction, when you look at the number of listings
3 we've had and what you have developed on TMDLs. If they
4 want the process, save the money. Hell, give it to them.
5 Let them list. They said nobody thought that was the
6 thing to do. I have crossed the line. I think you got to
7 bring it to an end, not worry about threats from any of
8 communities, including one region of U.S. EPA. And we can
9 get on to really developing some TMDLs and not just deal
10 with the listings.

11 Thank you. And we have appreciated this arduous
12 service on the PAG. Thanks.

13 MEMBER SILVA: Thank you.

14 That is all the cards we have. Anybody we missed
15 or somebody that wants to add something.

16 MS. MILLS: Good afternoon, Mr. Silva and
17 Members of the State Water Resources Control Board. My
18 name is Laura Giudici Mills. I am here representing the
19 Salinas River Channel Coalition, which is a group of
20 landowners and growers in Monterey County. And after
21 listening to all the information presented today from both
22 sides, I felt that it was important that I do go on the
23 record and say when you are considering listing and
24 delisting, take into consideration one of the largest
25 issues facing the agricultural industry right now, which

1 is the ag waivers, and consider what incentives exist for
2 agriculture to step up and implement best management
3 practices with their own funds. If there is the ability
4 to delist a water body that serves as an incentive, we can
5 use that in our outreach to get people to enroll in the ag
6 waivers, typically within Region 3.

7 So I just ask you to consider this information when
8 you are looking at whatever your policy is for listing and
9 delisting.

10 Thank you.

11 CHAIRMAN BAGGETT: Thank you.

12 Thank you, everybody, for your comments. We have a
13 lot to think about. I know it sounds like we may -- this
14 minimum number of samples, when we decide to the approve
15 the list for the policy.

16 Any other thing, Nancy?

17 MEMBER SUTLEY: I had three things on my list.
18 One was the small sample size and what do we do when we
19 don't have a small sample size. And I think there is some
20 unhappiness with the rule of three for small sample sizes.
21 We need to talk about that a little more. There is
22 probably a fix there.

23 On the delisting, the question of whether a minimum
24 sample size helps to resolve some legitimate concerns and
25 some concerns I have about delisting based on statistical

1 methods which seems to me creates a problem for us.

2 And then the issue about the 4 percent for the
3 coliform not only applying to coastal water bodies but
4 also inland. I think there was a fair amount of agreement
5 that we should do that. I think those are the -- to me
6 those seem to be the outstanding issues that we need to
7 discuss more.

8 I just want to say for the record that I think we
9 are pretty close, and I would like to see us adopt
10 something soon. These are changes -- these are
11 discussions we can have quickly and try to resolve this
12 quickly because it would be better to have a policy than
13 not have a policy or to prolong this particular discussion
14 because it is really painful.

15 MEMBER SILVA: The latter comments were all to
16 that vein. Seems like whatever we do we are not going to
17 make anybody happy, and just to get something done is
18 better than not doing anything.

19 Appreciate those latter comments to that point.

20 Mr. Chairman, I think we are ready to close.

21 CHAIRMAN BAGGETT: Just in time.

22 MEMBER SILVA: Bang the gavel. Back to you.

23 CHAIRMAN BAGGETT: Thank you, all.

24 (Workshop concluded at 4:15 p.m.)

25 ----oOo----

1 REPORTER'S CERTIFICATE

2
3
4 STATE OF CALIFORNIA)
5 COUNTY OF SACRAMENTO) ss.

6
7
8 I, ESTHER F. SCHWARTZ, certify that I was the
9 official Court Reporter for the proceedings named herein,
10 and that as such reporter, I reported in verbatim
11 shorthand writing those proceedings;

12 That I thereafter caused my shorthand writing to be
13 reduced to printed format, and the pages numbered 3
14 through 116 herein constitute a complete, true and correct
15 record of the proceedings.

16
17 IN WITNESS WHEREOF, I have subscribed this
18 certificate at Sacramento, California, on this 21st day of
19 September, 2004.

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22
23
24
25
ESTHER F. SCHWARTZ
CSR NO. 1564

9/8/04

WORKSHOP TRANSCRIPTS

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