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STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION
No. WQCC 14-05 (R)

IN THE MATTER OF:
PROPOSED AMENDMENTS TO
STANDARDS FOR INTERSTATE
AND INTRASTATE SURFACE
WATERS, 20.6.4 NMAC

TRANSCRIPT OF PROCEEDINGS

BE IT REMEMBERED that on the 15th day of
October, 2015, this matter came on for hearing before
Morris Chavez, Hearing Officer, and the Water Quality
Control Commission, at the State Capitol Building, Room
307, 490 Old Santa Fe Trail, Santa Fe, New Mexico, at
the hour of 9:00 a.m.

Volume 3

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E X H I B I T S

ADMITTED

San Juan Water Commission:

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curriculum vitae

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Nylander

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of Charles L. Nylander, with

attached Exhibits C-1 through C-4

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attached Exhibits D-1 through D-3

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Aquatic Invertebrates and Community

Metrics provided by the New Mexico

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Exhibit C. A Water Quality Assessment of 635

Four Intermittent Streams in Los Alamos

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E X H I B I T S (Continued)

ADMITTED

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Exhibit J. Bill Richardson letter, 635

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Exhibit L. New Mexican Mussels 348

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Exhibit 1. Direct Testimony of Robert W. 687

Gensemer, PhD, GEI Consultants, Inc.,

with attached Exhibits 1 through 7

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E X H I B I T S (Continued)

ADMITTED

Chevron (Continued):

Exhibit 2. Rebuttal Testimony of Robert W.

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Gensemer, PhD, GEI Consultants, Inc.,

with attached Exhibit 8

1 MR. DOMINGUEZ: Good morning, everybody.

2 I think we'll go ahead and get started.

3 So we will turn things over to our Hearing
4 Officer.

5 MR. CHAVEZ: Thank you, Mr. Chairman, members
6 of the board.

7 We're back in the matter of WQCC 14-05(R).

8 To start, if we can have all counsel stand up
9 and enter their name for the record once again, please.

10 MS. MCCALED: Jolene McCaleb for San Juan
11 Water Commission.

12 MR. VERHEUL: John Verheul and Kathryn Becker
13 for New Mexico Environment Department.

14 MR. SCHLENKER-GOODRICH: Erik
15 Schlenker-Goodrich for Amigos Bravos.

16 MR. ROSE: And Louis Rose for Chevron Mining.

17 MR. CHAVEZ: And once again, counsel for
18 Freeport is not here as of yet. When they are, I'll
19 have them enter their name for the record.

20 To start off with, if we can go to public
21 comment.

22 Is there anybody in the crowd that would like
23 to give public comment at this time?

24 Seeing none, I'm going to move to San Juan for
25 continuation of their direct.

1 MS. MCCALED: Thank you.

2 MR. CHAVEZ: You may proceed.

3 CHARLES L. NYLANDER

4 having been previously duly sworn or affirmed, was
5 examined and testified further in direct and
6 rebuttal as follows:

7 DIRECT EXAMINATION (Continued)

8 BY MS. MCCALED:

9 Q. Good morning, Mr. Nylander.

10 A. Good morning.

11 Q. When this hearing recessed yesterday
12 afternoon, you were testifying on the topic of the
13 Bureau's temporary standards proposal; is that correct?

14 A. Yes.

15 Q. In order to put your testimony this morning
16 into context and have an easy flow from yesterday
17 afternoon, could you please quickly recap the points you
18 made concerning the modifications that the San Juan
19 Water Commission had proposed?

20 A. Yes. Through my written rebuttal testimony,
21 San Juan Water Commission proposed some modifications to
22 the Bureau's proposal.

23 We proposed a definition for temporary
24 standard, for the definitions section.

25 We proposed language making the temporary

1 standard applicable to a designated use, not just water
2 quality criteria.

3 And we also proposed language making the
4 temporary standard applicable to permittees.

5 Since that rebuttal was filed, EPA has issued
6 its final water quality standards variance rule, which
7 does become effective on October 20th of -- this month.

8 And I've compared the final rule with the
9 Bureau's proposal and with San Juan Water Commission's
10 proposal, and compared to the new EPA rule, the San Juan
11 Water Commission's proposal most closely mimics EPA's
12 rule.

13 And in essence, basically, San Juan Water
14 Commission proposes adoption of the EPA rule.

15 Q. Mr. Nylander, in addition to the proposed
16 modifications you just mentioned, were there any
17 additional modifications to the Bureau's proposal for
18 temporary standards that were recommended in your
19 written testimony?

20 A. Yes, there were. San Juan Water Commission
21 proposed using the term "variance" instead of the term
22 "temporary standard."

23 We also proposed using the term
24 "documentation" instead of the term "work plan."

25 And we also objected to the requirement of

1 providing UAA-like information, having to show one of
2 the factors in 40 CFR Section 131.10(g), demonstrated
3 that an attainable use was not attainable.

4 Q. And has the San Juan Water Commission
5 withdrawn those objections?

6 A. Yes, we have.

7 Q. Can you explain how the Bureau's proposal for
8 temporary standards compares with EPA's new water
9 qualities standards variance rule?

10 A. Yes. EPA's -- I mean -- excuse me. The
11 Department's proposed language is -- is more narrowly
12 focused. It applies only to criteria and not to
13 designated uses.

14 And it applies to water bodies only and not to
15 permittees.

16 Q. And what is your opinion concerning this more
17 narrow approach to a variance or temporary standard?

18 A. Well, I believe it's most useful to adopt the
19 whole tool, if this is a new water quality tool, that's
20 authorized by EPA's final rule on water quality
21 standards variances, as has been recommended by San Juan
22 Water Commission, which would allow a temporary
23 designated use and also allow a temporary standard for
24 criteria for -- for a permittee.

25 However, if the Commission wants to adopt the

1 Bureau's more narrowly focused temporary standard, just
2 focused on the water quality criteria, then the San Juan
3 Water Commission supports the Bureau's proposal without
4 modification.

5 In other words, the Department, the Bureau,
6 has proposed a much narrower concept. It's more like
7 a -- a site-specific criteria over a very deliberate
8 length of time, instead of being perpetual.

9 And we think if that's what the Commission
10 wants to do, that we would support the Department's
11 language.

12 In any case, whether you adopt the whole
13 enchilada or you just adopt a nacho with a little cheese
14 on it, to be humorous, there is -- there is a great need
15 for a method in New Mexico to obtain a temporary
16 variance from water quality standards statewide. This
17 is a need both experienced by permittees and watershed
18 restoration groups.

19 The San Juan Water Commission historically has
20 supported the concept of a temporary standard, a short
21 duration variance from standards, and I see great value
22 in having this concept in New Mexico's water quality
23 standards.

24 Q. Could you please comment on who might benefit
25 from the proposed temporary standard with the broadened

1 applicability recommended by the Water Commission based
2 on the new EPA rule?

3 A. Well, in my mind, there would be two distinct
4 groups of potential petitioners that might avail
5 themselves of a temporary standard.

6 The first group would include agencies like
7 the Environment Department, Game and Fish, soil and
8 water conservation districts, et cetera, other natural
9 resource agencies that might want to petition to conduct
10 watershed restoration projects.

11 This group would also include watershed groups
12 that have been established around New Mexico and
13 environmental advocacy groups that have a desire to
14 improve water quality in a particular basin or sub-basin
15 or water body segment.

16 So that would be the first group.

17 The second group would be largely comprised of
18 NPDES permittees who need additional time to implement
19 adaptive management processes and/or treatment
20 technology upgrades in order to meet water quality
21 standards.

22 This group would include dischargers that are
23 facing increasingly stringent criteria, especially
24 criteria like nutrient criteria on receiving waters in
25 New Mexico. And this would include the large category

1 of New Mexico municipalities that presently do not have
2 the treatment technology to meet the more stringent
3 nutrient criteria.

4 Q. Are there similar benefits to be obtained from
5 the more narrow temporary standard provision proposed by
6 the Bureau?

7 A. Yes, there are. But there are not quite as
8 many.

9 For example, I think a temporary standard that
10 applies only to criteria would be useful if a petitioner
11 needs relief from a numeric criteria for, say, a heavy
12 metal or some other constituent that actually has a
13 numerical criteria published in the water quality
14 standards.

15 However, I'm not sure how it will aid
16 municipalities that may need help meeting nutrient
17 criteria, where there is only a nonnumeric narrative
18 general criteria for nutrients. In this case, numeric
19 standards are only a product of calculation during the
20 performance of a TMDL on a water body and -- and
21 enforced as a waste load allocation numerical limit in
22 an NPDES permit.

23 And I'm not sure that as proposed by the
24 Department the temporary standard would allow relief
25 from that kind of criteria.

1 Q. Mr. Nylander, you testified yesterday that
2 you've come to realize that EPA's new rule requires
3 performance of a UAA.

4 Can you please clarify and expound on that
5 testimony?

6 A. Yes. 40 CFR Section 131.14(b)(2) states --
7 I'm going to quote just a short sentence here -- "For a
8 water quality standard variance to a use specified in
9 section 101(a)(2) of the act, or a sub-category of such
10 a use, the State must demonstrate that attaining the
11 designated use and criterion is not feasible throughout
12 the term of the water quality standards variance
13 because: (1) One of the factors listed in
14 section 131.10(g) is met, or (2) actions necessary to
15 facilitate lake, wetland, or stream restoration through
16 dam removal or other significant reconfiguration
17 activities preclude attainment of the designated use and
18 criterion while the actions are being implemented."

19 That's a statement right out of the new
20 federal rule.

21 And interestingly, in the preamble to the
22 rule, published in the Federal Register on page 51041,
23 EPA stated "The level of rigor required for a water
24 quality standards variance is no different than for a
25 designated use change. That said, the appropriate

1 technical and scientific data required to support a
2 designated use change and water quality standards
3 variance can vary depending on the complexity of the
4 specific circumstances."

5 So this -- this language that was EPA's
6 language in this recent rulemaking final -- final
7 rulemaking, very similar to, I think, some information
8 provided earlier this week by one of the Department's
9 witnesses in answering this same type of question that
10 seemed to indicate there might be some -- some sort of
11 flexibility depending on the complexity of the
12 circumstance.

13 I truly don't know for certain how flexible
14 they would be. So in my mind, it's still a little
15 confusing as to whether you really need to meet the
16 rigor of the UAA or not.

17 Q. Well, to follow up on that confusion, because
18 the Bureau's proposal for temporary standards applies
19 only to criteria and does not allow for a temporary
20 downgrade of a designated use, would you agree that it
21 would be less likely that a full-blown UAA would be
22 required for a temporary standard applying only to a
23 criteria?

24 A. Yes. It sort of sounds that way to me. It
25 sounds like you might not have to do as much rigorous

1 scientific demonstration. But I really feel it's
2 unclear, and it would depend on -- on the site-specific
3 circumstances, I guess.

4 But I still have concerns as to how much of
5 that kind of UAA work the petitioner would have to do,
6 and whether the final product, once passed on to EPA for
7 approval as a water quality standard change -- whether
8 they would review it in that kind of spirit of saying
9 we're just temporarily changing this and we're going to
10 maintain the underlying use criteria.

11 Q. Thank you.

12 And finally, Mr. Nylander, what is your
13 opinion concerning the Bureau's proposed language for
14 20.6.4.12H regarding compliance with a temporary
15 standard?

16 A. Well, the San Juan Water Commission and I -- I
17 representing them agree that a temporary standard should
18 be included in the development of NPDES permits.

19 And based on EPA guidance in the Water Quality
20 Standards Handbook, San Juan Water Commission, you know,
21 has proposed adding language addressing the use of
22 temporary standards in developing water quality-based
23 effluent limitations in NPDES permits.

24 Q. Mr. Nylander, do you have anything else you
25 would like to add concerning the temporary standards

1 proposal?

2 A. No, not at this time.

3 Q. Okay. Thank you.

4 So let's move on to Section 20.6.4.97 NMAC
5 concerning ephemeral waters and your testimony on behalf
6 of the San Juan Water Commission that was previously
7 filed.

8 Can you please summarize your testimony about
9 the Department's proposed amendments for that section?

10 A. Yes. As stated in my direct testimony and
11 rebuttal testimony, I have no objection to the listing
12 of the 30 new surface waters segments in this section of
13 the water quality standards that has been reserved for
14 ephemeral waters.

15 However, my testimony thus far in the proposed
16 amendments has focused also on the Commission's adoption
17 of the EPA rebuttal presumption and the issues and
18 concerns I have on behalf of the San Juan Water
19 Commission regarding the Commission's adoption of this
20 concept and -- and the resulting water quality sections
21 at 20.6.4.97 and 20.6.4.98 as -- as resulted from
22 changes that were promulgated as a result of the 2009
23 triennial review.

24 My testimony file discuss the common sense
25 interpretation of the Clean Water Act's purpose and

1 interim goal statements and EPA's most recent evolving
2 interpretation of those goals and purpose that are some
3 43 years old now, and now referring to them as
4 regulatory requirements.

5 And instead of repeating this kind of
6 testimony, I prefer to briefly describe for clarity with
7 the Commission the impact of the Commission's adoption
8 of the rebuttable presumption and offer some
9 constructive suggestions on what can be done to reverse
10 those impacts.

11 Q. Okay, Mr. Nylander. Would you then proceed to
12 provide that elaboration on the impacts and your
13 suggestions?

14 A. Yes. The designated uses for
15 Section 20.6.4.97 -- those are the ephemeral waters that
16 are now the section where these 30 segments are being
17 added to -- the designated uses are livestock watering,
18 wildlife habitat, limited aquatic life and secondary
19 contact recreation.

20 And in order for a water to be listed in this
21 section, you must first take a nonperennial unclassified
22 water in the state and perform a UAA in order to
23 document that its uses can't support the Clean Water Act
24 101(a)(2) fishable/swimmable interim goals.

25 Once that's demonstrated and approved by the

1 Department and the Commission and EPA, the surface water
2 can be listed in the new Section 20.6.4.97.

3 And in fact, during this triennial review, the
4 Commission is presented with the first 30 surface waters
5 to be listed in this section since the -- since the
6 section was adopted in 2009, some -- some six years ago.

7 And in my testimony, I already define some
8 financial costs, transactional costs associated
9 confirming these 30 surface waters and indeed finding
10 them to be ephemeral so they can be listed.

11 However, the language in Section 20.6.4.98
12 represents the most significant and burdensome impact on
13 New Mexico as a result of the Commission's adoption of
14 the rebuttable presumption.

15 Q. And could you please briefly describe your
16 concerns with regard to Section 20.6.4.98?

17 A. Section 20.6.4.98 is titled Intermediate
18 Waters, and this standard applies to all nonperennial
19 unclassified waters of the state, except those waters
20 included under Section 20.6.4.97. Those are the
21 ephemeral waters that have undergone this UAA process.

22 The .98 section, Intermediate Waters, resulted
23 from the adoption by the Commission of the rebuttable
24 presumption in 2009. It is fraught with significant
25 issues and impacts.

1 The primary issue is that the designated uses
2 for this section are livestock watering, wildlife
3 habitat, but also include marginal warm water aquatic
4 life and primary contact recreation. Indeed, these are
5 the Clean Water Act 101(a)(2) fishable/swimmable interim
6 goals that have been adopted by this Commission for over
7 120,000 miles of nonperennial waters in New Mexico.

8 And because this section applies to all
9 nonperennial waters in the state by definition, it
10 includes -- and I'll cite just a few sentences from the
11 Commission's definition of waters -- "All surface water
12 situated wholly or partially within or bordering upon
13 the state, including lakes, rivers, streams (including
14 intermittent streams), mudflats, sandflats, wetlands,
15 sloughs, prairie potholes, wet meadows, playa lakes,
16 reservoirs, and natural ponds."

17 And also means all tributaries of such water,
18 including adjacent wetlands, et cetera. It also
19 includes any water of the US as defined by the Clean
20 Water Act and not included in the preceding description.

21 So according to this definition, the
22 Commission has set as an enforceable goal the 101(a)(2)
23 fishable/swimmable goals in every arroyo, wash, playa
24 lake, mudflat, sandflat, wetland, wet meadow, et cetera.
25 And given the present EPA regulations, this enforceable

1 goal cannot be downgraded now without the successful
2 performance and approval of a UAA.

3 Thus, New Mexico has placed itself in the
4 untenable position of stating that primary contact and
5 recreation -- primary contact recreation and fishing are
6 attainable goals in all these types of waters unless you
7 perform a UAA and it's approved in order to downgrade
8 the use.

9 I find this personally to be incredibly
10 irrational.

11 Historically this Commission has focused on
12 our perennial waters. We have approximately 6,000 miles
13 of perennial waters in the state. And during my tenure
14 with the Environment Departments prior to NMED, I
15 basically saw that the Commission was focused on
16 protecting those perennial waters and focused on high
17 quality cold waters as a priority, the little
18 headwaters, like the Rio Hondo and the Chama and so
19 forth.

20 And now, some 40 years later, we are now
21 focused, evidently, on ephemeral or intermittent waters,
22 which, as I mentioned, extend around the state, more
23 than 100,000 miles of these kind of features. So --

24 Q. Mr. Nylander, on that point, are you
25 suggesting that the WQCC should not be protecting

1 ephemeral waters or only that more appropriate standards
2 should be applied to them?

3 A. Well, the way -- .97 standard now, it is the
4 appropriated -- appropriate designated use and criteria
5 for those waters, once they've undergone the UAA process
6 and can be listed there.

7 I'm suggesting that we now, after six years,
8 have 30 segments that will be listed, and we have tens
9 of thousands of sections to go out of the .98 section
10 that are still unclassified nonperennial, but they have
11 to be looked at with a UAA study in order to list them
12 as ephemeral streams.

13 Q. Mr. Nylander, what are the cost implications
14 to the State of New Mexico because of the adoption of
15 Section 20.6.4.98 and the rebuttable presumption
16 concept?

17 A. Well, you know, they are significant. In my
18 file testimony, I basically gave a couple of data points
19 on what I could glean from the cost of doing the studies
20 for the 30 segments that are being added. But I see
21 that over time these costs could incrementally mount up.

22 The cost is both to the actual petitioner who
23 wants to undertake working on one of these nonperennial
24 unclassified segments or by the Department in its
25 obligation to work with and review these kind of

1 applications.

2 I'm not clear whether the Department has a
3 plan to undertake annually some kind of work plan to
4 chip away at these unclassified waters that are listed
5 in .98.

6 But quite frankly, New Mexico's -- New
7 Mexico's a poor state. We have a population that's just
8 barely over 2 million. Our workforce is a little bit
9 less than 1 million people. Average median income for
10 the employment in New Mexico is in the mid-40,000 a year
11 range. And we have 25 percent of our population at or
12 below the poverty level.

13 When I look at the UNM Bureau of Business and
14 Economic Research statistics, it's obvious to me that
15 New Mexico is -- is just holding on. A third of our
16 workforce is in the government and education and health
17 care industry sector.

18 And BBER says that the health care sector is
19 the one that's going to grow in the upcoming years
20 because of the demographics of the population, aging
21 population, and the fact that we have -- the Affordable
22 Care Act has propelled many more people into the
23 Medicaid category. So we have presently about
24 40 percent of the state's population qualifies for
25 Medicaid.

1 So looking at the income revenue for state
2 government and looking at the income for the average New
3 Mexico citizen, we are not a flush state. We are not in
4 a good situation.

5 And I think any kind of regulation or standard
6 or rulemaking that unnecessarily costs money and
7 transactional costs, if it's really not needed, we
8 should take a very careful look at those situations.
9 And I think the .98 rule is one of those rules that,
10 unfortunately, was adopted in 2009 without thinking
11 about the consequences.

12 Q. Mr. Nylander, do you have any information
13 about how much it costs to perform a UAA to designate a
14 stream segment as ephemeral?

15 A. Well, the very -- the very least costs that I
16 was able to glean from talking with consulting firms and
17 looking at work that's been done here in New Mexico,
18 just to go through the sort of phase 1 screening that
19 might be sufficient to -- to reclassify an ephemeral
20 stream into the .97 segment of the standards would be
21 somewhere on the order of \$10,000 for consulting and
22 then -- not counting then the government's time and
23 processing and working with the paperwork to actually
24 get that change made.

25 So they're not trivial. And I think when I

1 looked at the mining segments that the Chino Mines and
2 others that brought into the .97 category now, I mean,
3 those costs were certainly upwards of 150,000. And that
4 was primarily -- it was over a four-year time span that
5 that work was going on and lots of trips back and forth
6 to Dallas and working with the Department and so forth.

7 So, I mean, nobody, quite frankly, wants to
8 disclose a lot of the cost information, but I think it's
9 significant, and it's the costs that you're spending to
10 show that an arroyo is really an ephemeral stream. So
11 it used to be a lot more straightforward and common
12 sense before 2009.

13 Q. Mr. Nylander, the San Juan Water Commission
14 has not proposed during this triennial review that there
15 be any changes to Sections 20.6.4.98 or .97.

16 So what is the purpose of your testimony with
17 respect to the problems caused by the rebuttable
18 presumption?

19 A. Well, I really -- I really believe that an
20 error has been made. I think that the -- that the
21 Department, taking EPA's guidance after the 2005
22 triennial, was influenced to believe that the rebuttable
23 presumption was, in fact, a requirement and basically
24 just went forward with their belief that they had to do
25 it.

1 I think it's interesting that I find nothing
2 in the record that shows there was any real pushback
3 with Region 6 or with EPA in general about the proposed
4 impact -- or the proposed rulemaking in 2005, which was
5 to basically assign the secondary contact use and the
6 limited aquatic life use to ephemeral streams.

7 And EPA didn't like that, and they wrote at
8 length in their Record of Decision about that not being
9 acceptable because of these other requirements.

10 And I think that's in one of the exhibits,
11 both for James Hogan and for me, that particular 2005
12 Record of Decision.

13 So basically, I think it's unfortunate, but
14 there really wasn't a strong objection or pushback with
15 EPA, and I think there's a lot of room to do that.

16 Q. And what would your recommendation be about
17 how the state could go about accomplishing that?

18 A. Well, I think that at the very least the
19 Commission could impanel a working group to study this
20 issue and come up with a -- with a position paper that
21 then could be used to support meetings with EPA, to see
22 if there's a way to kind of undo what -- what this
23 rebuttable presumption has done to the state standards.

24 I think that the congressional delegation may
25 be some help in that area, that they would certainly

1 take an interest in the transactional cost burden for
2 the state.

3 And I know that, you know, other organizations
4 like the Western Coalition of Arid States, WESTCAS --
5 that basically those kind of organizations have fought
6 very hard for their 22 or 23 years of existence to get a
7 special EPA treatment for arid west states.

8 And I was a former president of WESTCAS, and
9 I'm still an emeritus member, but they were able to help
10 secure a \$5 million EPA grant years ago, which was
11 administered by Pima County, in Tucson, to look at
12 site-specific criteria and uses for arid west ephemeral
13 streams and intermittent streams, something that was
14 really applicable to our type of climate, which is only
15 getting hotter and dryer.

16 And the results of all those studies have been
17 sitting in headquarters in Washington for five or six
18 years now, and nothing's been done with them.

19 But it's those kinds of activities that I
20 think -- I think would help, and I do think there are
21 some other ways that you might be able to undo some of
22 the harm in Section .98.

23 For instance, if you wanted to change primary
24 contact use for these nonperennial waters to secondary
25 contact, but yet keep the more stringent criteria that

1 supports primary contact, you're allowed to do that, and
2 EPA's water quality handbook does allow you to designate
3 secondary contact, even though it doesn't meet their
4 rebuttable presumption notion, as long as you have
5 criteria that protect the more stringent use.

6 So you could undo some things on the
7 recreational side.

8 On the aquatic life side, I think -- I think
9 it's unfortunate that a more strong argument wasn't made
10 in 2005 and 2009 for the limited aquatic life use. But
11 I -- again, I think that with the right pushback, I
12 think this could be accomplished.

13 Q. Mr. Nylander, in your written testimony, you
14 provided some testimony about the ongoing waters of the
15 United States EPA rulemaking. And since you filed that
16 testimony, there has been a final WOTUS rule adopted.

17 How does your testimony on that topic mesh
18 with the concerns you have just raised?

19 A. Well, the proposed water of the US rule has
20 received a tremendous amount of pushback by 31 states in
21 the US that have filed suit to basically stay or block
22 that rulemaking. And 11 of -- 11 states received
23 actually a stay in the federal court in South Dakota for
24 a temporary stay of the rulemaking.

25 New Mexico was among those 11. So New Mexico

1 is among the 31 states who have filed protests of this
2 WOTUS rule, and it was the New Mexico Environment
3 Department and the Office of the State Engineer that
4 spearheaded the New Mexico participation in the
5 litigation.

6 Q. Let me stop you there a moment, Mr. Nylander.

7 Would -- I believe you said South Dakota.

8 Would you be referring to a district court
9 case in North Dakota?

10 A. Yes, I would. Thank you.

11 Q. Thank you.

12 A. I -- I get south and north confused sometime.

13 I think that the fact that the Environment
14 Department is now protesting, in a sense, the expansion
15 of jurisdiction by EPA for waters of the US -- a little
16 bit schizophrenic with their adoption in 2009 of the
17 rebuttable presumption.

18 It's as if 2009 time frame they were wanting
19 to expand to cover everything that possibly could be
20 covered, and now in 2015 the Department's posture is the
21 opposite, that they don't want to see water quality
22 jurisdiction under the Clean Water Act expanded to
23 unknown areas.

24 I will also mention on that that I've become
25 aware that there's a congressional letter that's been

1 written, signed by 106 congressmen, dated August 4th of
2 2015, and it's basically to the Inspector General of the
3 Environmental Protection Agency, requesting that the
4 Office of Inspector General perform a -- an
5 investigation on EPA's unprecedented grassroots lobbying
6 effort to promote their water of the US rulemaking.

7 Q. So, Mr. Nylander, in a sentence or two, could
8 you just summarize what the purpose of this testimony
9 has been for this Commission and why you think it was
10 important?

11 A. Well, most of the Department's rationale to
12 adopt this rebuttable presumption was part of the 2009
13 triennial review process. And in my mind, now that the
14 state is stuck with -- with the standards as they're
15 written in the -- in the current version of standards,
16 that basically I would suggest that the Department and
17 the Commission work together to try to see if they could
18 undo some of the harm and damage that's been done.

19 And I think it would lift a tremendous cost
20 burden off of the shoulders of the state, and it would
21 also not maintain the sort of appearance that the
22 Commission is trying to make wet meadows and wetlands
23 and playa lakes fishable and swimmable.

24 Common sense would tell you that these things
25 are -- are not capable of supporting primary contact and

1 fishing and -- and it's just nonsensical to spend time
2 and resources doing unnecessary paperwork to demonstrate
3 that.

4 Q. Thank you.

5 So, Mr. Nylander, let's move to the final
6 topic that you're going to address today.

7 Would you please summarize your written
8 testimony regarding the Department's proposal to amend
9 Sections 20.6.4.101 through 503 NMAC by upgrading nine
10 surface water segments from secondary contact recreation
11 to primary contact recreation?

12 A. Yes. Most of the Department's rationale in
13 their proposal for upgrading the designated use from
14 secondary to primary contact for these nine segments was
15 not supported by sound scientific evidence.

16 The statements of reason that were in the
17 proposal contained or relied on anecdotal evidence, web
18 site publications, the fact that an area was open to the
19 public, and -- and there was even some double negative
20 language that basically said we have no information to
21 say that it might not be attainable, and so on and so
22 forth.

23 So I think in looking through it and looking
24 for actual good, sound, scientific data, I didn't see
25 much, and it seems like they really are relying more on

1 the rebuttable presumption that I've already talked
2 about, that they have to basically assign the highest
3 attainable use to those waters according to EPA's
4 concept.

5 Looking at all nine of these segments, the
6 secondary contact, I think, is the more appropriate use
7 for most of the segments. And as I mentioned
8 previously, you can preserve the existing secondary
9 contact use as is but accomplish what the Department is
10 wanting to accomplish by just increasing and reassigning
11 the bacterial criteria that comports with the primary
12 contact use.

13 EPA's water quality handbook, as I said,
14 basically allows this and presents it as option number
15 two when you're differentiating between primary contact
16 and secondary contact use.

17 So it is a way that -- and when you look at
18 the bacterial limitations, the criteria for primary use
19 versus secondary use, they're very, very close as far as
20 the number of organisms per hundred mLs.

21 So I would suggest an easy way would be to
22 just leave secondary contact and, if you really want,
23 assign the higher bacterial criteria to those nine
24 segments.

25 Q. Mr. Nylander, day before yesterday, did you

1 hear the Bureau's testimony that the designated use
2 upgrade is necessary because there are no UAAs on record
3 that show the primary contact use is not existing or not
4 attainable?

5 A. Yes, I did.

6 Q. And do you agree with that position?

7 A. Well, prior to 2005, secondary contact use was
8 assigned to these water quality segments, and triennial
9 review after triennial review, EPA approved those uses.

10 But now, since 2005, when EPA's kind of de
11 novo reinterpretation of the goals of the Clean Water
12 Act and their fabrication of this rebuttable
13 presumption, basically they're basically mandating, if
14 you will, that all -- all designated use be capable of
15 supporting primary contact recreation and aquatic life
16 use that would include fishery.

17 So I think there's really no legal basis for
18 EPA's reinterpretation. I think that it is just a
19 reinterpretation, and I do, as I said earlier, propose
20 that -- or I would suggest that the Commission seriously
21 mount an effort to challenge that type of
22 interpretation.

23 Q. And, Mr. Nylander, in the Department's
24 testimony and in the exhibits that they provided in this
25 triennial review, did you see any documentation that EPA

1 was requiring the upgrading of preexisting designated
2 uses because the UAA was not done in the past, or just
3 requiring that newly designated uses meet the
4 fishable/swimmable requirement?

5 A. Well, I didn't find any information or -- that
6 would suggest EPA was directing that on these nine
7 segments that these uses be upgraded.

8 There is regulatory language that says when
9 you -- when you have a triennial review and you have
10 waters that are not assigned the fishable/swimmable
11 uses, you should re-examine those to see if that
12 fishable/swimmable use is an existing or attainable use,
13 and if so, you should upgrade the segment.

14 And -- but, however, as I stated earlier, the
15 information that was provided as to why these nine
16 segments should be upgraded was pretty scant and not
17 compelling, in my mind, and explained an alternative
18 where they could just leave the secondary use and just
19 increase the bacterial criteria for those segments.

20 Q. Mr. Nylander, the regulation you were just
21 referring to concerning the availability of any new
22 information, was that 40 CFR Section 131.20(a)?

23 A. Yes, it was.

24 Q. And is there anything in that regulation that
25 indicates that a UAA must be performed? That a UAA must

1 be performed in order to keep a previously designated
2 secondary contact use?

3 A. No.

4 Q. And, Mr. Nylander, do you have any personal
5 experience with any of these nine stream segments that
6 are proposed to be upgraded to primary contact
7 designated use?

8 A. I have some experience with visiting
9 McAllister Lake over in San Miguel County. It's on the
10 fish and wildlife property there. I have fished in that
11 lake. I have -- I have waterfowl hunted around that
12 lake. And it's a very small -- small lake that's grown
13 up around the banks and edges with riparian growth,
14 cattails, and it's not the type of place where you would
15 normally go to swim.

16 And I've never observed anybody swimming in
17 the water. And those people that might boat on the
18 water to fish, that's a secondary contact use, boating
19 is, and so I don't really think that -- I think that
20 secondary contact is an appropriate designated use for
21 that body.

22 Likewise, the Charette Lake segment that was
23 proposed, I've -- I've fished on that lake before. And
24 again, it's kind of a -- a weedy lake, and I think it's
25 primarily a fishing lake but not -- not necessarily used

1 for swimming.

2 Q. Mr. Nylander, do you have anything else to add
3 to your testimony?

4 A. I don't think so.

5 Q. Thank you.

6 Mr. Hearing Officer, that concludes
7 Mr. Nylander's direct testimony, and at this time I
8 would like to move admission of Mr. Nylander's written
9 direct and rebuttal testimony and exhibits, those are
10 designated as San Juan Water Commission Exhibit C, which
11 has attachments as Exhibit C-1 to C-4, and then also his
12 rebuttal written testimony is Exhibit D, and it contains
13 three attachments that are designated Exhibits D-1 to
14 D-3.

15 MR. CHAVEZ: Any objection?

16 MS. BECKER: Yes, Hearing Officer. The
17 Department does have an objection to the admission of
18 the direct and rebuttal testimony of Mr. Nylander.
19 There's been departure from that today. We would like
20 to review that with him and determine whether that
21 should be reliable for submission.

22 MS. MCCALED: Mr. Hearing Officer, prior to
23 this hearing, there was no objection to any of the
24 written or rebuttal testimony of Mr. Nylander. At the
25 beginning of his testimony, he mentioned that he would

1 be modifying some of that testimony today, which I
2 believe some of the other witnesses have also done,
3 given changes of circumstances, adoption of new rules
4 and what have you, in the interim since the written
5 testimony was filed.

6 MR. CHAVEZ: Final word?

7 MS. BECKER: Modifications are such that it's
8 not clear that the direct and rebuttal is still
9 reliable. There's been significant departure. I would
10 like the opportunity to review with this witness what he
11 would like the Commission to rely upon.

12 MS. MCCALEB: I believe Mr. Nylander testified
13 that he was adopting his written direct and rebuttal
14 testimony with the modifications that were made orally
15 here.

16 MR. CHAVEZ: Okay. Just because there's been
17 a, I guess, accusation that it has been a significant
18 departure, I do want to allow the Environment Department
19 some questioning on that before I allow it.

20 MS. MCCALEB: Okay. Thank you very much.

21 MR. SCHLENKER-GOODRICH: I would -- no. I
22 don't have any specific objection.

23 I would note that it seems that the proper
24 test would be whether or not Mr. Nylander's testimony is
25 a logical outgrowth of his written or direct testimony.

1 In prior Commission proceedings that we've
2 been involved in, what the counsel for the Department
3 may be implicitly recommending is that this issue could
4 be addressed in concluding arguments, the written
5 concluding arguments, to determine whether or not those
6 are, in fact, a logical outgrowth of the -- of the
7 direct and rebuttal testimony.

8 MR. CHAVEZ: Okay. Thank you.

9 MR. ROSE: Mr. Hearing Officer, just one
10 point.

11 We're in a rulemaking proceeding, and it seems
12 to me that all of this information the Commission can
13 sift through, and if the Department has questions about
14 what the San Juan Water Commission's current position
15 is, they can certainly delve into that on
16 cross-examination.

17 I think the Commission's savvy enough to gauge
18 what's being said or not and whether to rely on it or
19 not. So I don't see that that should be an objection to
20 its admissibility. It may go to weight, but I don't
21 think it should go to admissibility.

22 MS. CHAPPELLE: Freeport, you know,
23 understands the comments raised and understands the
24 NMED's desire to cross-examine and figure -- figure that
25 out, nail that down, and so we would support their

1 ability to do that.

2 MR. CHAVEZ: Okay. So what I'll do is we'll
3 go to NMED first in cross, if you can address those
4 issues up front. Once -- once it appears that you're
5 done, kind of let me and counsel know so that I can just
6 make the final decision on that.

7 MS. BECKER: Yes, Hearing Officer.

8 MR. HUTCHINSON: Mr. Hearing Officer, did you
9 want to have Freeport make their appearance for the
10 record so the --

11 MR. CHAVEZ: Oh, I'm going to go there in just
12 one second. Thank you for reminding me.

13 So let's go ahead and go cross, NMED first.

14 MS. BECKER: Mr. Hearing Officer, if I may ask
15 for a ten-minute break or five-minute break, whatever
16 you'll allow.

17 MR. CHAVEZ: Okay.

18 First of all, can we have Freeport enter in
19 their appearance for the record.

20 MS. CHAPPELLE: Oh, my apologies.

21 Germaine Chappelle for Freeport.

22 MR. CHAVEZ: Thank you.

23 Anybody -- any other parties?

24 MR. DOLAN: Tim Dolan for Los Alamos National
25 Laboratory.

1 MR. CHAVEZ: Thank you, Mr. Dolan.

2 Let's go ahead and take a five-minute break,
3 and we'll come back on the record.

4 (Proceedings in recess from 9:55 a.m. to
5 10:05 a.m.)

6 MR. CHAVEZ: We are back on the record.

7 So before we officially proceed with
8 cross-examination by the Environment Department, I want
9 to hear a little more on the objection to the exhibits,
10 and once that issue has been decided, we'll move
11 officially to your cross-examination.

12 MS. BECKER: Hearing Officer, you would like
13 me to speak to my objection again to the --

14 MR. CHAVEZ: Yes. What I would like to do is
15 before we start your cross-examination, let's -- I want
16 to provide some -- is it questioning that you want to do
17 of the witness?

18 MS. BECKER: Yes, Hearing Officer. What I
19 would like to do is -- due to his withdrawal of certain
20 positions that were stated on direct, I would like to
21 ascertain, on almost a page-by-page format, what
22 portions of his testimony he's withdrawing and what part
23 remains in place, such that if it's more confusing
24 and -- to the Commission, let alone myself, on what the
25 position of the Commission is, ask that the

1 Commission -- ask that the witness stand by his
2 testimony provided that's on the record, as opposed to
3 that which was prefiled, to the extent that it's that
4 different.

5 MR. CHAVEZ: So it's going to be part of your
6 cross, essentially.

7 MS. BECKER: Yes.

8 MR. CHAVEZ: Okay.

9 Point on that?

10 MS. MCCALED: Yes, Mr. Hearing Officer. In my
11 experience before this Commission in previous triennial
12 reviews --

13 MS. GREENWALD: I'm sorry. We can't hear. We
14 can't -- we could hear her, and we can't hear you.

15 MS. MCCALED: Mr. Hearing Officer --

16 MS. BONIME: Could you use a microphone,
17 please?

18 MR. CHAVEZ: If you could hold on one second,
19 we'll address that.

20 MS. GREENWALD: Okay. Thank you very much.

21 MR. CHAVEZ: Thank you.

22 MS. MCCALED: Mr. Hearing Officer, given my
23 experience in appearing before this Commission before in
24 other triennial reviews and other rulemakings, it has
25 also been the practice that the parties file written

1 direct and rebuttal testimony based on the information
2 before them at that point in time.

3 As the hearing -- prehearing procedure
4 progresses, the parties often attain more information,
5 they have meetings, they may end up withdrawing
6 proposals, as has already been done by some of the
7 other parties before.

8 And even at the hearing, parties can clarify
9 what their most current proposal is, or they agree to
10 withdraw information, and that that is not a basis for
11 withdrawing -- excuse me -- the previous -- I'm sorry.
12 I need some water. That's not a basis for withdrawing
13 the previous written testimony.

14 What is testified to on the record at the
15 hearing is a clarification to any changes they want to
16 make to the previous testimony, and if it needs to be
17 clarified, it can be clarified on the record through
18 cross-examination, but does not merit withdrawal of the
19 original testimony.

20 MR. CHAVEZ: Okay.

21 MR. SCHLENKER-GOODRICH: Yeah. I would -- for
22 Amigos Bravos, we certainly substantively do not agree
23 with the San Juan Water Commission, but we object to
24 this line of questioning. I agree wholeheartedly with
25 what Ms. McCaleb has said.

1 We are not necessarily limited directly to the
2 direct and prefiled written testimony. There is a --
3 there is a reason why we have a hearing and why we have
4 a dialogue here today. If it was simply premised solely
5 on what we had written in our prefiled testimony, there
6 would be no reason for us to be here.

7 The Water Quality Act in terms of defining
8 what kind of evidence is admissible says very broadly
9 that the Commission should consider all evidence. Now,
10 the Commission is certainly entitled to give whatever
11 probative value or weight to that evidence it wants to,
12 but that doesn't mean that they can exclude this kind of
13 organic dialogue.

14 I think that what the San Juan Water
15 Commission does today -- and again, I don't agree with
16 it substantively, but I think it is their right to be
17 able to raise these kind of issues that are very
18 responsive to either new information or the testimony
19 that arises in the course of these proceedings.

20 This is precisely why you have these
21 proceedings, to tease out what is the focal point of the
22 distinct -- of the differences between the various
23 parties and to try to encourage the parties to resolve
24 these differences of opinion.

25 In all the Commission proceedings that I have

1 been in in the last 10, 15 years, there has been
2 dialogue between the parties in the course of those
3 proceedings, and very frequently -- and Amigos Bravos
4 has been able to do this, we've been able to resolve
5 differences of opinion in the course of those
6 proceedings, provide a consensus agreement to the
7 Commission, and therefore resolve the issue. And that
8 leads to better rulemaking.

9 So we object to the Department's line of
10 questioning. To the degree that they do have concerns
11 that the proposals are not a logical outgrowth of the
12 testimony or any of the proposals, my sense is that that
13 can be addressed in any sort of closing arguments that
14 are provided for in the procedural order, and I think
15 that is the proper place to do that.

16 MR. CHAVEZ: Okay.

17 Please.

18 MS. BECKER: Mr. Hearing Officer, I would
19 concur with much of what Ms. McCaleb and
20 Mr. Goodrich-Schlenker --

21 MR. SCHLENKER-GOODRICH: Schlenker-Goodrich.

22 MS. BECKER: Excuse me.

23 MR. SCHLENKER-GOODRICH: It's difficult. No
24 worries.

25 MS. BECKER: -- said in the context of the

1 dialogue and discussion.

2 However, what's different is it's my
3 understanding that this follows more the element of
4 surprise. Certainly, we've been in discussion, my
5 client with the San Juan Water Commission, and these
6 discussions have occurred. But what I heard yesterday
7 was that it was a result of the final rule and NMED's
8 petition on September 4th that allowed for this new
9 interpretation or better understanding.

10 We welcome a better understanding. What we
11 don't welcome is surprise. This occurred yesterday.
12 It's enough that we need to warrant a review. And I'm
13 asking simply for the ability to clarify, if, in fact,
14 it's a clarifying comment, what is the position of San
15 Juan, and we believe that it's based on ultimately a
16 lack of understanding of the Department's proposal.

17 MR. CHAVEZ: Thank you.

18 What concerns me is if I do not rule on this
19 issue, the admissibility of these exhibits, and wait on
20 this questioning, there could be objections within the
21 objection that's standing.

22 Given the arguments of all parties, what I
23 am -- oh.

24 MS. CHAPPELLE: Hearing Examiner, you --

25 MR. CHAVEZ: Please.

1 MS. CHAPPELLE: -- skipped over a few parties.
2 So I just was wondering if you were going to circle
3 back.

4 MR. CHAVEZ: I apologize. I didn't know you
5 wanted to speak.

6 If you may, go ahead, please.

7 MS. CHAPPELLE: Sorry. My apologies.

8 It seems to me that what the Department is
9 trying to do is just flush out some things to make sure
10 they understand what is being withdrawn and what's not
11 being withdrawn and how the party got there, how San
12 Juan got there.

13 And this is done in lots of different
14 administrative contexts to determine what stays in and
15 what goes out. And so to that extent, for that
16 housekeeping purpose and to clarify later, when we're
17 trying to figure out what was in and what wasn't in, it
18 certainly makes sense to me to go down that road.

19 So from an overall housekeeping, good
20 organization standpoint, we support the request.

21 MR. ROSE: Mr. Hearing Officer, not to
22 reiterate what other folks have said, but just to remind
23 you again that this is a rulemaking, the criteria for
24 admissibility ought to be relevance. The questions that
25 I think the Department has is over what the -- what the

1 San Juan Water Commission's proposal actually is. That
2 they can probe on cross-examination. But I think that
3 goes to the admissibility of the written or oral
4 testimony.

5 So we would suggest that you should admit all
6 of the testimony subject to probing it on
7 cross-examination and then let the Commission sift
8 through it and decide what the appropriate weight should
9 be.

10 Thank you.

11 MR. CHAVEZ: Thank you, parties.

12 What I am going to do -- and once again,
13 the -- what concerns me is that we proceed without me
14 ruling on these -- on this evidence. We could have
15 objections with the objection, which could confuse the
16 matter more.

17 So what I'm going to do is I am going to -- I
18 am going to allow the evidence, I'm going to admit the
19 evidence, and I'm going to have NMED continue with their
20 cross-examination.

21 And obviously, a good part of that questioning
22 could be on the issues that they're dealing with, and
23 what it's going to do is allow me, as the Hearing
24 Officer, and the Commission to determine what weight is
25 going to be ascribed to that based on your questioning.

1 So if -- if we can just proceed, I'm going to
2 allow the evidence.

3 (Exhibits SJWC A through D admitted into
4 evidence.)

5 MR. CHAVEZ: And, ladies and gentlemen in the
6 audience, if, by chance, you have an issue as to whether
7 you can hear, come and let Pam, our administrator, know.
8 We're going to put microphones at each table to make
9 sure you guys can hear how the proceedings are going.

10 MS. GREENWALD: Great. Thank you.

11 MS. BONIME: Thank you.

12 MR. CHAVEZ: Absolutely.

13 And also, if you would like to move to the
14 front row just to ensure you're hearing everything to be
15 said, we would offer you all these seats.

16 Having said that --

17 MR. HUTCHINSON: Mr. Hearing Officer.

18 MR. CHAVEZ: Yes.

19 MR. HUTCHINSON: And I think these
20 microphones -- they may have -- you may have to push the
21 button to speak.

22 You want to test them?

23 MS. MCCALED: Test.

24 MR. HUTCHINSON: You have to push and hold the
25 button.

1 MS. MCCALED: Test.

2 Okay. Thank you.

3 MR. CHAVEZ: So, NMED, you may proceed with
4 cross.

5 MS. BECKER: Thank you.

6 CROSS EXAMINATION

7 BY MS. BECKER:

8 Q. Good morning, Mr. Nylander.

9 A. Good morning.

10 Q. Kathryn Becker from New Mexico Environment
11 Department.

12 And I do have quite a few questions for you,
13 and I will try to be as clear as I can, because my goal
14 is to understand what it is that the San Juan Water
15 Commission seeks to have the Commission rely upon for
16 purposes of this hearing.

17 And certainly, I do recognize that a --

18 MS. GREENWALD: I'm sorry. I still can't hear
19 you.

20 Q. (BY MS. BECKER) -- changed mind is a -- is
21 something that the Department certainly welcomes and
22 it's discussions we've had to date.

23 But first I want to ask, as a result of you
24 having made some legal conclusions, are you, in fact, a
25 lawyer?

1 A. No, I'm not.

2 Q. Okay.

3 So with that, I would like to follow the
4 outline that you did this morning. I appreciate you
5 organizing it, I believe, topically and to temporary
6 standards, ephemeral waters and the nine segments.

7 Is that -- is that correct?

8 A. Yes.

9 Q. Okay. Let's start with the temporary
10 standards, then.

11 I again appreciate that -- I understood that
12 you withdrew your recommendations to the Commission that
13 they find that the definition be as broad as is
14 contained in the final rule; is that correct?

15 A. Yes.

16 Q. Okay.

17 And that it furthermore is -- the language of
18 the standard is appropriate and -- as opposed to your
19 former position of having it be called a variance; is
20 that right?

21 A. Yes, that is right.

22 Q. Okay.

23 And then, similarly, your use of language in
24 terms of the Department's narrow -- narrowly tailoring
25 of the rule is, in fact, what occurred, and therefore,

1 it's applicable to site-specific water bodies as opposed
2 to permittees; isn't that right?

3 A. That is correct.

4 Q. Okay.

5 So I'm going to turn to what has been admitted
6 as the San Juan Water Commission's Exhibit C, which is
7 your direct testimony. It would be helpful if you had
8 that in front of you.

9 So as it relates to the temporary standards
10 proposal, beginning on page 1, in summary, would it be
11 fair to say that your testimony is that it now supports
12 the Department's narrowly tailored criteria-based
13 temporary standard?

14 All the way through -- I'm just reading and
15 see if I can't just understand that to be the case
16 through page 10.

17 Would that be a fair statement?

18 A. Subsequent to my oral testimony this morning,
19 I think that is correct. I did say this morning that
20 when given a choice between the more all-inclusive
21 temporary standard approach, which San Juan Water
22 Commission proposed, versus the narrowly focused
23 temporary standard, that the Department in its most
24 recent petition that was filed in September time frame,
25 I think, suggests, that San Juan Commission could accept

1 the more narrowly focused temporary standard proposal.

2 Q. Thank you.

3 So with the additional caveat that you just
4 articulated, would the first 10 pages be replaced by
5 your oral testimony?

6 A. Oh, gosh.

7 MS. MCCALED: Objection. I don't believe that
8 that's a decision for Mr. Nylander to make.

9 The position of the San Juan Water Commission
10 would be that this was his original testimony based on
11 the original petition filed by the New Mexico
12 Environment Department and that his testimony and the
13 position of the San Juan Water Commission was modified
14 over time based on the most recent filing by the New
15 Mexico Environment Department that was made in either
16 August or September of this year.

17 Therefore, his original testimony is still
18 applicable as of the time it was written.

19 MR. CHAVEZ: I would overrule that and allow
20 the witness to answer.

21 Please proceed.

22 MR. NYLANDER: The first 10 pages contains a
23 variety of points that were made specific to the
24 original Department petition and proposed language, and
25 I -- I believe that earlier this morning I'm giving the

1 Commission a choice of either adopting a larger concept
2 temporary standard or a more narrow concept temporary
3 standard.

4 So if they want to think about the impact of
5 the larger concept, which is what San Juan Water
6 Commission's position has been, I think these 10 pages
7 would still be relevant to their understanding of what
8 the larger concept entails.

9 However, if their feeling is, after the record
10 is clear to them that maybe the more narrowly focused
11 Department petition that's just come in in the last few
12 months -- if that's really the way they want to go, then
13 I've already said San Juan Water Commission has no
14 objection to that, and we support -- we support the
15 narrower version if that is the type of tool that the
16 Commission wants to adopt.

17 Q. (BY MS. BECKER) Mr. Nylander, am I correct in
18 understanding that any change in your direct and
19 prefiled testimony came about either as a result of the
20 petitions filing on September 4th or the new rule which
21 was finalized in August of this year?

22 A. Those two -- those two things did influence
23 our change in thinking.

24 Also, the Department had requested a meeting
25 with us back on April 21st of this year and -- to

1 discuss our approach and their concept on temporary
2 standards. So that influenced our thinking, because it
3 really changed the way we understood the Department's
4 proposal, up until this hearing started.

5 And then we got more insights from the direct
6 testimony of NMED the first day of the hearing.

7 Q. Fair enough. And I understand that you have
8 adjusted over time due to those three -- three factors,
9 if not others.

10 But the point being that the first 10 pages of
11 your direct reference the petition in place at the
12 Department but also the draft rule, and I'm not aware of
13 any differences in the draft rule to the final rule as
14 it relates to temporary standards that would influence
15 your change in position at this point.

16 Can you identify that for me?

17 A. I -- I found that the draft rule and the final
18 EPA rule were virtually identical. I think the final
19 rule did allow for a greater time length of their water
20 quality variance. I think -- I think originally in the
21 proposed rule there was discussion of limitations to
22 maybe five years or ten years, and the final rule did
23 not put a time limitation that would be applicable to
24 all variances.

25 EPA -- EPA allows a case-by-case basis and --

1 and -- but requires a review every five years if the
2 variance is awarded for longer than five years.

3 Q. And wouldn't it be appropriate to state that
4 the final rule simply requires that a state adopting a
5 variance or temporary standard have a time limited or
6 temporal nature to it?

7 A. Yes.

8 Q. Okay.

9 Let's look, then, at benefits. I'm looking at
10 page 10.

11 You identified that there would be little
12 benefit to a regulated community to obtain a temporary
13 standard as opposed to a UAA.

14 Has your position also changed in this regard?

15 A. Yes, it has. I believe that based on the
16 original petition and the -- and the language the
17 Department proposed, when -- when we thought that a UAA
18 was going to be required, then it seemed to us that
19 if -- if a petitioner perform a UAA and showed a use was
20 not attainable, at that point they had -- would have a
21 choice.

22 They could either request a downgrade -- a
23 permanent downgrade of the use and the criteria that go
24 along with that, or they could request a temporary
25 standard which would still keep in place the underlying

1 use and criteria but allow them some variability in
2 the -- in the criteria and standard for a certain length
3 of time.

4 We questioned what the motivation would be for
5 the petitioner if it would be simpler just to ask for a
6 downgrade of the standard based on their UAA work.

7 Now I understand your concept a little bit
8 further, and I understand you've narrowed it just to
9 criteria instead of a designated use.

10 Q. And furthermore, you did identify you're
11 familiar with the final rule, yes?

12 A. Yes.

13 Q. And you did then also see the section in the
14 final rule that explicitly identifies when a UAA is
15 required and when it is not required.

16 A. Yes, I did.

17 Q. Okay.

18 And I'm speaking to Section 40 CFR 131.10
19 designation of uses, specifically paragraph (j).

20 And so you -- it is your understanding, then,
21 that no UAA is required to -- when the state designates
22 for the first time or has previously designated for a
23 water body uses that include the 101(a)(2) uses of the
24 Clean Water Act?

25 A. Yes.

1 Q. Okay.

2 So if we turn, then, to page 13 of your
3 direct, it's my understanding that you still affirm the
4 use of temporary standards for the Commission as a tool
5 to allow the state greater flexibility and to meet the
6 highest attainable designated use.

7 A. Yes.

8 Q. Furthermore, I understand that you affirm that
9 there's no objection -- oh, I'm sorry. I jumped ahead.

10 Before I get to page 14, I just want to make
11 certain that I introduce the topic. That is now
12 returning to ephemeral waters, which is Section 97 of
13 the state's water quality standards.

14 My understanding is that you still have no --
15 and I'm reading from page 14 -- you still have no
16 objection to the designation of these stream segments as
17 ephemeral waters; is that correct?

18 A. That is correct.

19 Q. And I would like to turn to your statement
20 that it's the rebuttable presumption that, in essence --
21 rebuttable presumption -- your statement was that the
22 state has adopted.

23 Is that -- were those your words?

24 A. Yes. In essence, the state has adopted the
25 rebuttable presumption.

1 Q. Okay.

2 I'm going to identify what's been admitted
3 into evidence as your Exhibit C-3, which is the draft
4 rule that was published in the Federal Register in
5 September of 2013. And I'm going to ask if you would
6 turn with me to page 54522.

7 And in the -- oh.

8 A. 54542?

9 Q. Excuse me. 54522.

10 A. Yes.

11 Q. Okay.

12 And this is background as to why EPA is -- is
13 making this proposal specific to designated uses.

14 And it's important that you understand that
15 it's EPA, not the WQCC or the Environment Department,
16 that's interpreted that the uses specified in
17 Section 101(a)(2) of the Clean Water Act are presumed
18 attainable.

19 Do you understand that's EPA's presumption?

20 A. Yes, I do.

21 Q. And do you understand that that presumption
22 has been passed on to the states who have received
23 designated -- who have the ability through primacy to
24 implement that?

25 A. Yes, I do. I -- and I mentioned in my oral

1 testimony this morning that when that passing on
2 occurred in the 2005 triennial review time frame and the
3 Record of Decision that EPA filed, basically they made
4 it clear that they were requiring that kind of language.
5 And my testimony this morning was that it was
6 unfortunate that the Department or the Commission did
7 not push back on -- on that requirement.

8 Q. I understood your testimony, but I'm not sure
9 if your reading of the draft rule and the final rule
10 reflects EPA's interpretation of the Clean Water Act
11 Section 101(a)(2) to be the rebuttable presumption and
12 to be in place even prior to the Department's 2005
13 triennial review.

14 A. To my knowledge, EPA has never brought that
15 issue up to the state until the 2005 time frame.

16 Q. And while that may be the case, I'm going to
17 ask you to look -- it's both in the draft rule and the
18 final rule -- the footnote that EPA -- and I'm going to
19 read EPA -- I'm reading -- I'll read from the draft
20 rule, which is in -- is that the one in front of you?

21 A. Yeah.

22 Q. Okay. Just --

23 A. What -- what page is that?

24 Q. Same page, footnote 9. It's in the lower
25 right-hand corner.

1 A. Um-hum.

2 Q. "EPA's 'rebuttable presumption' that the uses
3 specified in Clean Water Act 101(a)(2) are presumed
4 attainable, unless demonstrated to be unattainable
5 through a UAA, has been upheld in Idaho Mining
6 Association versus Browner," a 2000 court case in Idaho.

7 Are you -- do you see that?

8 A. I do see that.

9 Q. Do you see that states have, in fact,
10 challenged, but EPA has been upheld since at least 2000
11 in its interpretation of the rebuttable presumption?

12 A. I was aware of that.

13 Q. Okay.

14 Certainly, I heard your testimony, and it
15 is -- today, and that was also reflected in your direct
16 testimony, that, in essence, the rebuttable presumption
17 just cost too much for New Mexico to implement; isn't
18 that correct?

19 I'm looking for a yes or no answer.

20 A. Yes.

21 Q. Okay.

22 And are you also aware of the fiscal analysis
23 that's required of any federal agency and the financial
24 information that's contained in the final rule?

25 A. Yes, I am.

1 Q. And it was found to be not burdensome to the
2 state; isn't that right?

3 A. I didn't interpret it that way. I -- I seem
4 to recall that they were kind of gross estimates based
5 on national implementation of the variance rule. And I
6 don't remember if it was state by state or not, but --

7 MS. MCCALED: Excuse me, Ms. Becker.

8 Could you please refer me to the language
9 you're asking about?

10 MS. BECKER: Sure. It begins on page 51044,
11 the Summary of Potential Incremental Burden and Cost to
12 States and Authorized Tribes.

13 MS. MCCALED: And are you looking at the draft
14 rule or the final rule?

15 MS. BECKER: Final.

16 MS. MCCALED: Okay. One moment.

17 MR. NYLANDER: So I noticed on that page when
18 I looked at it that water quality standards variances
19 were estimated to cost anywhere from \$2.5 to
20 \$11.4 million per year, and New Mexico's portion of that
21 be some amount. I have no idea what amount.

22 MS. BECKER: Okay.

23 Q. I'm going to just ask you to look on page
24 51045 of that same section.

25 And I'm going to ask you, do you see the

1 language in the first column that says "Although
2 associated with potential administrative burden and cost
3 in some areas, this rule has the potential to partially
4 offset these burdens by reducing regulatory uncertainty
5 and increasing overall program efficiency"?

6 A. I see that language.

7 Q. Okay.

8 A. Yes.

9 Q. And do you see the sentence following that,
10 that "Use of these tools to improve establishment and
11 implementation of state and authorized tribal water
12 quality standards, as discussed throughout the preamble
13 to this rule, provides incremental improvements in water
14 quality and a variety of economic benefits associated
15 with these improvements, including the availability of
16 clean, safe, and affordable drinking water sources; and
17 a -- water of adequate quality for agricultural and
18 industrial use; and water quality that supports the
19 commercial fishing industry and higher property values"?

20 MS. MCCALED: Excuse me, Ms. Becker.

21 Are you asking that question with regard to
22 the benefits and costs of this rule or Mr. Nylander's
23 testimony about the costs of the rebuttable presumption
24 and the ephemeral waters rule?

25 MS. BECKER: Thank you for your question. And

1 the answer is as it relates to the implementation of
2 variances as burdensome.

3 MS. MCCALED: Thank you.

4 MR. NYLANDER: The language you cited on page
5 51045 basically, I think, applies to all of the
6 associated rules that are being amended by this final
7 rule, which include more than just the water quality
8 standard variance. It includes changes in the
9 antidegradation, changes in triennial review language,
10 and adopts a new highest attainable use language and so
11 on, so forth.

12 So I would -- I would have to agree that when
13 you take all of these rules that have been amended by
14 this federal action published August 21st, 2015, that
15 indeed there should be some other kinds of benefits from
16 all those things. Don't know specifically, though, what
17 the benefit precisely is for a water quality standard
18 variance.

19 MS. BECKER: Thank you.

20 Q. Moving on through your direct, I'm now turning
21 to, I believe, the third topic area, which has to do
22 with the redesignation of the nine segments.

23 Specifically, if you'll look with me on page
24 24.

25 It's your understanding that in the draft

1 final rule -- excuse me -- in the draft final rule and
2 the final rule EPA's proposing to use the highest
3 attainable use as the Clean Water Act 101 standards; is
4 that right?

5 A. I -- that's my interpretation. Yes.

6 Q. Okay.

7 And it's your understanding of the final rule
8 that if -- that a UAA is required to show
9 nonattainability with the Clean Water Act
10 Section 101(a)(2) uses, correct?

11 A. Yes. If you're -- if you're trying to --
12 trying to alter a 101(a)(2) use, then you must -- in the
13 way of a downgrade, you must perform a UAA.

14 Q. And do you -- and you do understand that the
15 nine segments are, in essence, an upgrade, not a
16 downgrade; isn't that right?

17 A. It's a -- it's an upgrade, but I've suggested
18 that there's another way to accomplish what you're
19 trying to do, and that is to leave the secondary contact
20 use as (b) and just upgrade the bacterial criteria for
21 those nine segments. That is an approvable standards
22 change, and you wouldn't be required to designate
23 primary contact.

24 Q. Well, with that, let's look at the final rule.
25 If you would turn with me to page 51024.

1 So again, the bases for the Department's
2 action is that there -- that the rule requires if new
3 information is available at the time of triennial
4 review, that -- that they designate the highest
5 attainable use.

6 Are we -- are we in agreement on that?

7 A. Yes.

8 Q. Okay.

9 So when I look at the final rule, specifically
10 I'm in the middle column --

11 A. This is -- this is preamble language. It's --
12 it's preparatory language before the rule is stated.
13 But yes.

14 Q. I understand.

15 And I'm reading from the middle of the page
16 about the subcategories of uses under the 101(a)(2).

17 Is what you were referring to in your
18 testimony today about affording the Commission another
19 option of how to look at -- at a change in criteria --
20 are you referring to the subcategory of the 101(a)(2)?

21 A. Not at -- not the way this paragraph is
22 structured. I'm -- I referred to the EPA Water Quality
23 Standards Handbook and their guidance on recreational
24 uses.

25 And on page 2 of their guidance, they give a

1 state two options for designating recreational uses, and
2 either designate primary contact recreation for all
3 waters of the state and set bacterial criteria
4 sufficient to support primary contact, or, option two,
5 designate either primary contact recreation or secondary
6 contact for all waters of the state and where secondary
7 contact is designated set bacterial criteria sufficient
8 to support primary contact recreation.

9 EPA believes a secondary contact recreational
10 use with criteria sufficient to support primary contact
11 use is consistent with the Clean Water Act 101(a)(2)
12 goal.

13 So that --

14 Q. Is that contained in your testimony,
15 Mr. Nylander, that guidance document?

16 A. This is -- this was an exhibit in my --

17 Q. Your rebuttal?

18 A. -- my testimony. It's a document of record.

19 Furthermore, EPA, in their 2005 triennial
20 review Record of Decision letter, which was incorporated
21 as an exhibit by several of your witnesses -- it also
22 has a citation in the ROD on page 4 --

23 Q. I'm familiar with that. And I'm going to --

24 A. Okay.

25 Q. I apologize for interrupting. But let's --

1 let's date for -- I'm not finding that exhibit, although
2 I believe it's in here.

3 So would you just tell me the date of the --
4 the guidance that you provided?

5 And, Ms. McCaleb, if you could help me
6 identify where that is in his exhibits. I'm not seeing
7 it.

8 MS. MCCALEB: Can you provide the title of
9 that guidance, please, Charlie?

10 MR. NYLANDER: Water Quality Standards
11 Handbook, EPA.

12 If it wasn't -- I don't recall at this point
13 if it was added as an exhibit to the direct or rebuttal
14 or if it was just merely referenced.

15 MS. MCCALEB: Could you please look at Exhibit
16 D-1 and confirm whether that's the correct exhibit?

17 It would be attached to your rebuttal
18 testimony.

19 MR. NYLANDER: Oh. Sorry.

20 Yes. That is -- that is the exhibit that I'm
21 referring to.

22 MS. BECKER: Thank you.

23 Q. And what is the date of this exhibit?

24 A. This was -- this was copied off the Internet,
25 off the EPA official web site. I don't -- I don't see a

1 date on it. But it is their current Water Quality
2 Standards Handbook language.

3 Q. Okay.

4 But you did identify, though, that the Federal
5 Register for 131.14 of the Clean Water Act does become
6 effective October 20th of this year, does it not?

7 A. Yes, it does.

8 Q. And wouldn't that, in fact, be the most
9 current information available from EPA's perspective on
10 the temporary standards and triennial reviews?

11 A. It might be the most current, but the Water
12 Quality Standards Handbook has existed for decades,
13 and --

14 Q. Fair enough.

15 A. -- their criteria for primary and secondary
16 contact is -- and their options have always remained the
17 same.

18 Q. Okay.

19 So you identify the handbook as your bases of
20 knowledge, and furthermore, what I believe you were
21 referring to was the Department's Rebuttal Exhibit
22 Number 4 to Mr. Hogan's -- Dr. Hogan's --

23 A. Yes.

24 Q. -- testimony.

25 And what I'm going to ask -- what I'm asking

1 you to look at, in light of the bases of your decisions,
2 is what's the middle column of the preliminary material
3 as to, you know, why does EPA, in essence, do what it
4 does.

5 Do you see the language in the middle column
6 regarding the subcategory distinction that I was just
7 asking you about?

8 Mr. Nylander, I'm referring to the final rule.

9 A. Oh. I thought you were on -- sorry.

10 This is still on page 51024?

11 Q. Correct.

12 A. Okay.

13 And this preamble language in the middle
14 column, and what paragraph again?

15 Q. The middle column, it would be the second
16 paragraph.

17 If you'll just reread that second paragraph
18 where the Clean Water Act distinguishes between two
19 broad categories of use.

20 A. Yes. It reads "The Clean Water Act" --

21 Q. No. I'm not asking you to read it out loud,
22 just for yourself.

23 A. Oh, okay.

24 Q. Thank you.

25 Specifically, it has -- it has a footnote,

1 footnote 14.

2 Do you see footnote 14?

3 A. I do.

4 Q. Okay.

5 And I'm going to read from footnote 14.

6 "A sub-category of a use specified in
7 section 101(a)(2) of the Act is not necessarily less
8 protective than a use specified in section 101(a)(2) of
9 the Act. For example, a cold water aquatic life use is
10 considered a use sub-category, but provides 'for the
11 protection and propagation of fish, shellfish and
12 wildlife,' consistent with Clean Water Act
13 section 101(a)(2). On the other hand, a secondary
14 contact recreation use (i.e., a use, such as wading or
15 boating, where there is a low likelihood of full body
16 immersion in water or incidental ingestion of water) is
17 considered a use sub-category, but does not provide 'for
18 recreation in and on the water,' consistent with Clean
19 Water Act section 101(a)(2)."

20 Did I read that correctly?

21 A. You -- you did read it correctly, and it's
22 language that I had looked at during my research. I was
23 puzzled by the paragraph "On the other hand," because
24 the -- they gave examples of wading and boating, but
25 then they say that's not recreation in and on the water.

1 And as far as I'm concerned, wading is
2 recreation in the water, and boating is recreation on
3 the water. So that distinction I -- I was confused by
4 them --

5 Q. I recognize the --

6 A. -- drawing that as an example.

7 Q. I recognize the confusion, Mr. Nylander.

8 But should the Commission rely on your
9 interpretation of this language or EPA's interpretation
10 as proposed in the final rule in the Clean Water Act?

11 A. Again, with the -- the uses that they -- have
12 as examples of wading and boating, if you compare that
13 to the state's and the EPA's definition of primary
14 contact recreation, there's supposed to be prolonged
15 exposure to the water, and -- so again, I -- obviously,
16 EPA's rulemaking is more authoritative than my opinion,
17 but in my opinion, this is one of those gray areas that
18 could be questioned.

19 And again, on the subcategory of aquatic life
20 use or fisheries use, I'm not sure why -- if they accept
21 these subcategories as protective of 101(a)(2), why they
22 would single out limited aquatic life in the New Mexico
23 standards as not meeting the 101(a)(2) goal. It is --
24 it is just a subcategory that still protects aquatic
25 life.

1 Q. With that, we concluded walking through your
2 direct, and I believe in my closing arguments I'll be
3 able to identify on what to rely and is relevant.

4 And let's just in a cursory manner, then,
5 address your rebuttal, please.

6 If you would look with me -- I'm going to take
7 just a minute so that I'm not redundant to the extent
8 that we've already articulated your positions.

9 Mr. Nylander, if you would turn with me to
10 page 24 of your rebuttal testimony.

11 A. Excuse me.

12 What page?

13 Q. 24.

14 A. Thank you.

15 Q. At the --

16 A. I'm sorry. I don't have that particular page
17 for some reason.

18 May I look over the shoulder of --

19 MS. MCCALED: I can give you a copy.

20 MR. NYLANDER: Okay.

21 (Discussion off the record.)

22 Q. (BY MS. BECKER) Are you on page 24?

23 A. I am.

24 Q. Okay.

25 So this is talking about the Department's

1 petition wherein Ms. Pintado's testimony was changing
2 the recreation use for the water segment from secondary
3 to primary contact?

4 A. Yes.

5 Q. So this is that third component of your
6 testimony wherein there's been some change; is that
7 correct?

8 A. Yes.

9 Q. And so your statement on this page is that you
10 disagree -- and I'm reading from the third to the last
11 sentence on the bottom of the page.

12 "I disagree with the assertion that a UAA must
13 support the existing designated use of secondary
14 contact."

15 A. I see the sentence. Yes.

16 Q. Is this still your position?

17 MR. HUTCHINSON: Excuse me.

18 What -- what page of his testimony are you on?

19 MS. BECKER: 24.

20 MR. HUTCHINSON: And you're at the bottom of
21 the page?

22 MS. BECKER: Yes. Third line from the bottom.

23 MR. HUTCHINSON: Oh, okay.

24 MR. WATERS: Of rebuttal testimony?

25 MS. BECKER: Of rebuttal, yes.

1 MR. NYLANDER: With the EPA's interpretation
2 with the rebuttable presumption and their final
3 rulemaking and so forth, I -- I see now that a UAA would
4 have to be done if somebody wanted to assign a new use
5 that was a less than primary contact recreation on a
6 water body.

7 On the other hand, existing secondary contact
8 uses that have been published in the standards for
9 decades, those uses EPA has not specifically written and
10 required or requested that those sections be upgraded
11 from secondary to primary.

12 And it seems to me that it's kind of late in
13 the game for EPA to all of a sudden have approved the
14 secondary contact for years and years and years without
15 a UAA and, now that they've taken a reinterpretation of
16 the act, now they seem to be saying, well, but you have
17 to have a UAA if you're going to use the secondary
18 contact use.

19 But I -- I will -- I will say at this point
20 that from EPA's standpoint a UAA would be required for
21 secondary contact use, unless the criteria for that use
22 were equivalent to the primary contact.

23 Q. (BY MS. BECKER) But a UAA is not required in
24 the case of these nine water segments, is it?

25 A. Well, presently they all have a secondary

1 contact use, and the Department's proposing to upgrade
2 that to primary contact. And EPA would not require a
3 UAA to upgrade it to primary contact. They would
4 require it if you were going to downgrade it from
5 primary to secondary.

6 Q. So while I understand -- so am I correct to
7 understand that your position is still to support the
8 upgrade for those nine segments?

9 MS. MCCALEB: Objection. I don't believe that
10 that was Mr. Nylander's position, that he supported the
11 upgrade of the nine segments.

12 MR. NYLANDER: No. In fact, in my testimony,
13 I basically found that there was scant evidence to
14 require the upgrade and -- and question -- question
15 why -- why not just leave it as secondary contact.

16 And I demonstrated in my testimony that you
17 could leave it as secondary contact and just increase
18 the bacterial criteria to the more stringent primary
19 contact criteria and accomplish what the Department
20 wants to accomplish or -- or the EPA might require.

21 The problem is once you upgrade --

22 Q. (BY MS. BECKER) Mr. Nylander --

23 A. -- to a use, then you are stuck with having to
24 do a UAA in the future if you ever wanted to downgrade
25 it.

1 Q. I think we need to be clear about the
2 distinction here. And I didn't mean to misunderstand
3 your testimony. So let's break it down into twofold.

4 I recognize you have issues with the
5 rebuttable presumption and that, in fact, your
6 recommendation as contained in your direct is to
7 encourage the Department and the WQCC to approach EPA
8 and -- and better determine a routing for that -- for
9 the -- for unclassified waters to be considered
10 ephemeral unless proven to be intermittent or perennial;
11 is that correct?

12 A. That is correct.

13 Q. And that's still your position.

14 A. Yes.

15 Q. Okay.

16 But the other issue is that you've identified
17 that a UAA is not required to go from secondary to
18 primary contact; isn't that right?

19 A. A UAA is not required to upgrade to primary
20 contact.

21 Q. And therefore, the Department did not conduct
22 a UAA for those nine water body segments, did they?

23 A. That's correct.

24 Q. And it's not required, and therefore, is your
25 position that you do not support the find -- the

1 Department's position that, in fact, they be primary
2 contact?

3 A. I didn't find enough evidence that was
4 compelling to say that primary contact was indeed an
5 attainable use.

6 Q. And yet we've established that the final rule
7 did not require a UAA to do so.

8 So this is based on your idea of what is
9 enough evidence?

10 A. No. The water quality standards regulations
11 require that you have sufficient scientific evidence to
12 support a change in standards, and you're changing the
13 standard here by upgrading it, but I find that the
14 supporting rationale is fairly scant, and that's why I
15 said it didn't look like there was enough evidence to
16 support the upgrade.

17 Q. And I do think I understand your position that
18 there's not enough.

19 But furthermore, you did identify, you've read
20 the final rule, a UAA is not required, and specifically
21 a state may -- has an obligation to review and consider
22 an upgrade --

23 A. Right.

24 Q. -- with the evidence it does have. Okay.

25 A. That is correct.

1 Q. I think we'll just not get to necessarily an
2 agreement on that point.

3 I'm just seeing if there's anything left of
4 the rebuttal that needs to be -- I think the last
5 question, then, Mr. Nylander, is do you -- you mentioned
6 a working group for purposes of this Commission.

7 Are you willing to serve on that working
8 group?

9 A. Yes, I am.

10 MS. BECKER: Okay. Thank you.

11 I have no further questions.

12 MR. CHAVEZ: Thank you.

13 Amigos, cross-examination.

14 I would politely just remind the audience that
15 if you have a cell phone please remember to silence it
16 at this time. Thank you.

17 CROSS EXAMINATION

18 BY MR. SCHLENKER-GOODRICH:

19 Q. Good morning, Mr. Nylander.

20 A. Good morning.

21 Q. My name is Erik Schlenker-Goodrich. I'm with
22 Amigos Bravos.

23 And I just have a few questions for you.
24 Hopefully, it won't take too long.

25 On page 12 of your rebuttal testimony -- why

1 don't you turn to that.

2 And this question is with regards to the
3 temporary standards proposal.

4 You state that there would not be any
5 increased concentrations of pollutants causing water
6 quality impairment because any permitted point source
7 discharge will still have to meet all applicable
8 technology-based effluent limits; is that correct?

9 A. That is correct.

10 Q. Are technology-based effluent limits stronger
11 or always stronger than water quality-based effluent
12 limits?

13 A. They're not always stronger. No.

14 Q. So where a water quality-based effluent limit
15 is stronger than a technology-based effluent limit, and
16 the water quality-based effluent limit is weakened to
17 incorporate a temporary standard, would that not result
18 in increased concentrations of pollutants?

19 A. The way you frame that question, yes. I think
20 the answer is yes.

21 Q. On page 12 of your testimony, as well, you
22 state that EPA and NMED most likely would utilize
23 temporary standards with respect to, quote, unquote,
24 existing discharges, end quote, to provide time to make
25 progress toward attaining designated uses and/or

1 criteria.

2 Is that accurate?

3 A. Yes.

4 Q. Should temporary standards only apply to
5 existing discharges?

6 A. Yes.

7 Q. Is the Department's temporary standards
8 proposal limited to existing discharges, or does it
9 allow for new or increased discharges?

10 A. As far as I understand, it would be limited to
11 the existing discharges.

12 Q. Based on your answer to that question, can you
13 point to anywhere in the Department's proposal where it
14 specifies that it is, in fact, limited to existing
15 discharges?

16 And I'll give you a moment, but perhaps
17 another way to phrase the question would be is that
18 limitation expressed in the plain language of the
19 temporary standard or in the Department's underlying
20 testimony?

21 A. I don't readily see that it's expressed
22 explicitly in the proposed rule.

23 Q. Would you base your conclusion that it's
24 limited to existing discharges to the Department's
25 testimony, then?

1 A. Yes.

2 Q. Turning to a different issue, Mr. Nylander,
3 you raise concerns regarding compliance and other
4 economic costs incurred by the Department and the
5 regulated community associated with the preparation of
6 use attainability analyses to determine whether a
7 particular water body should have a -- have its
8 designated uses downgraded; is that correct?

9 A. Yes.

10 Q. Does water quality pollution itself have
11 economic and financial costs?

12 A. Yes.

13 Q. For example, there may be heightened costs
14 associated with a water treatment facility trying to
15 clean up polluted water for municipal purposes, correct?

16 A. That's -- that's an example. Yes.

17 Q. As another example, might there also be costs
18 to New Mexico's farms and ranches from lost or
19 contaminated or reduced crop yields from polluted
20 irrigation water?

21 A. I can't give you a yes or no answer on that
22 because, basically, you know, we're talking about a
23 temporary reduction in a specific requirement, a little
24 bit lower standard or criteria.

25 Q. Forgive me. I'm not talking about temporary

1 standards specifically.

2 A. Okay.

3 Q. I'm talking about if -- as a general
4 proposition, if you have a water body that degrades from
5 a primary contact use to a secondary contact use or
6 there's a reduction in -- from a Clean Water Act -- more
7 broadly, a Clean Water Act 101(a)(2) use to a
8 non-101(a)(2) use, that the increased pollution might
9 have costs.

10 A. I'll give you a generic yes on that.

11 Q. Might there also be costs of cleaning up or
12 restoring degraded water quality?

13 A. There could be. Yes.

14 Q. And may there also be costs of public health
15 from people who may swim, drink or otherwise use
16 polluted water and become sick?

17 A. Yes.

18 MR. SCHLENKER-GOODRICH: No further questions.

19 MR. CHAVEZ: Thank you.

20 Chevron.

21 MR. ROSE: No questions, Mr. Hearing Officer.

22 MR. CHAVEZ: Thank you.

23 Freeport.

24 MS. CHAPPELLE: No questions, Your Honor.

25 MR. CHAVEZ: Los Alamos, I'm assuming --

1 MR. DOLAN: No questions, Mr. Hearing Officer.

2 MR. CHAVEZ: Thank you very much.

3 I would then like to move to the Commission,
4 Mr. Chairman, members of the Commission, for any
5 cross-examination of this witness.

6 MR. DOMINGUEZ: Thank you, Mr. Hearing
7 Officer.

8 CROSS EXAMINATION

9 BY THE COMMISSION:

10 MR. CHAVEZ: I will query the Commission on
11 who has questions.

12 Commissioner Hutchinson.

13 MR. HUTCHINSON: Thank you, Mr. Chairman.
14 Good morning, Mr. Nylander.

15 MR. NYLANDER: Hello, Commissioner Hutchinson.

16 MR. HUTCHINSON: In the temporary standards,
17 there's a requirement of the petition to come before the
18 Commission.

19 We've heard testimony from the public that
20 they would like to have these issues brought before a
21 public hearing.

22 Would you support such a change in that -- in
23 the proposed rule to require a public hearing?

24 MR. NYLANDER: Mr. Hearing Officer,
25 Mr. Chairman, Commissioner Hutchinson, no. I don't

1 think I would support that, because, basically, as I
2 grasp the Department's temporary standard approach, what
3 they're basically doing is equivalent to a site-specific
4 criteria, which we heard earlier discussion of with
5 respect to copper and -- by Chino Mines.

6 And so it's a -- it's really a site-specific
7 criteria, but the difference is it's only applied for a
8 limited amount of time instead of full-time. So the
9 copper -- for instance, the copper site-specific
10 criteria, if approved, is more or less permanent, but a
11 temporary standard for a criteria is only approved for a
12 certain amount of time.

13 And so they're really equivalent in that sense
14 of process, and -- and I think a public meeting with
15 a -- in front of the Commission would be adequate.

16 MR. HUTCHINSON: Okay.

17 So if -- if it's brought before the
18 Commission -- we've had all of these various activities
19 take place between the applicant and NMED so the
20 Commission would be receiving a request for that
21 temporary standard.

22 Do you anticipate, then, that the public
23 participation is going to take place in that preceding
24 process, or is that something that's going to be held in
25 a public meeting with the Commission accepting comments

1 from the public?

2 MR. NYLANDER: Well, I envision --
3 Mr. Chairman and Commissioner Hutchinson, I envision
4 that the Department, if they did receive a petition,
5 that they would have some form of public information
6 gathering or public participation of some kind, as
7 they're processing the petition and -- and getting it
8 ripe for -- for bringing before the Commission.

9 But when they bring it before the Commission,
10 it's really tantamount to a water quality standard
11 hearing, because you are changing a water quality
12 standard. And so there would be a public hearing
13 process there for a change in a water quality standard.

14 MR. HUTCHINSON: Thank you for that answer,
15 because I was thinking along the same lines, that since
16 it -- we're calling it a temporary standard, but the
17 section -- and this is on page 4 of the September 4th
18 document, and this is item 7 now -- that temporary
19 standards may be implemented only after appropriate
20 public participation and Commission approval, but it
21 doesn't mention that we're actually adopting the
22 standard, even though it's called a temporary standard.
23 Okay.

24 MR. NYLANDER: Mr. -- Mr. -- yes.

25 MR. HUTCHINSON: Some of these questions

1 were -- that I have were asked in the Department's
2 cross. So I'll not restate those.

3 Did you participate in the triennial review
4 where the current definition of waters of the state was
5 adopted?

6 MR. NYLANDER: Mr. Chairman, Commissioner
7 Hutchinson, I -- do you remember what year that was,
8 what triennial?

9 MR. HUTCHINSON: I believe it was the 2009.
10 2005.

11 MR. NYLANDER: If it was 2005 or 2009, I did
12 not participate.

13 MR. HUTCHINSON: Okay.

14 There's a definition in our -- our
15 jurisdiction -- let me get to that.

16 Under the jurisdictional authority for
17 adopting water quality standards, it refers to the New
18 Mexico statute, the Water Quality Act, and states water
19 quality standards for surface and groundwaters of the
20 state be based on credible scientific data and other
21 evidence appropriate under the act.

22 Given your testimony yesterday and today, do
23 you believe that the current definition of waters of the
24 state meets the intent of the Water Quality Act?

25 MR. NYLANDER: Mr. Chairman, Commissioner

1 Hutchinson, I think the current definition of surface
2 waters of the state or waters of the state in the
3 standards, in my mind, goes beyond EPA's definition
4 of -- of waters of the US.

5 MR. HUTCHINSON: Thank you for that.

6 But would that current definition of waters of
7 the state be considered to have relied on credible
8 scientific data?

9 MR. NYLANDER: Mr. Chairman, Commissioner
10 Hutchinson, presumably that change in adoption
11 presumably would have had to have been supported by
12 credible data.

13 MR. HUTCHINSON: You mentioned the cost to the
14 Department for addressing the rebuttable presumption and
15 the resulting requirement for a UAA for the ephemeral
16 waters additions.

17 Are there any other effects from not having
18 these ephemeral streams identified in the State of New
19 Mexico?

20 MR. NYLANDER: Mr. Chairman, Commissioner
21 Hutchinson, I believe you're talking about the
22 preponderance of ephemeral streams that still reside
23 under the category of intermittent waters in Section .98
24 that are un- -- the nonperennial unclassified segments.

25 And if I understand your question, you're

1 saying if they don't ever get studied and moved into the
2 category of ephemeral waters, is there a cost associated
3 with that?

4 MR. HUTCHINSON: Yes.

5 MR. NYLANDER: I can't think of a cost that's
6 associated with that, but I would say that it presents a
7 conundrum in the sense that it works against the
8 definition of -- the Commission has for ephemeral waters
9 and for intermittent waters, and seems it applies
10 designated uses of primary contact recreation and
11 marginal warm water fisheries -- or aquatic life --
12 excuse me -- to nonperennial waters, and that seems a
13 little ridiculous.

14 MR. HUTCHINSON: Are most of these segments
15 that we're talking about here on federal lands in the
16 State of New Mexico?

17 MR. NYLANDER: Mr. Chairman, Commissioner
18 Hutchinson, no. Although the federal government does
19 own a lot of land in New Mexico, there is still a lot of
20 state land and tribal land and private property, and
21 these -- these unclassified nonperennial waters are
22 virtually everywhere and purportedly protected for the
23 use of swimming and fishing.

24 MR. HUTCHINSON: So state land management
25 agencies, Department of Game and Fish, others, federal

1 land management agencies would be obligated to consider
2 the effect on those when doing their land management
3 planning and actions?

4 MR. NYLANDER: Mr. -- Commissioner Hutchinson,
5 yes, I believe they would.

6 MR. HUTCHINSON: And are federal land
7 management agencies required to consider water quality
8 standards in the State of New Mexico?

9 MR. NYLANDER: Mr. Chairman, Commissioner
10 Hutchinson, yes, they are.

11 MR. HUTCHINSON: Okay. I'll just go to the
12 changes to the nine segments.

13 In the Environment Department's testimony, did
14 you hear credible scientific data presented in support
15 of moving from secondary to primary contact?

16 MR. NYLANDER: Mr. Chairman, Commissioner
17 Hutchinson, as I stated previously in my testimony, I
18 didn't find much in the way of credible scientific
19 evidence justifying those upgrades.

20 MR. HUTCHINSON: How would you define credible
21 scientific data?

22 MR. NYLANDER: Something with more weight
23 other than just an anecdotal statement that somebody
24 might have seen somebody swimming in the water or
25 there's no reason to believe that somebody might not

1 swim in the water or -- it would be -- it would actually
2 be a series of observations and documented observations
3 and something with a lot more -- a lot more scientific
4 weight than just a guess, that people could swim in the
5 water.

6 MR. HUTCHINSON: Thank you.

7 Mr. Chairman, that's all I have.

8 MR. DOMINGUEZ: Commissioner DeRose-Bamman,
9 followed by Commissioner Tongate.

10 MS. DEROSE-BAMMAN: Thank you, Mr. Chairman.

11 Mr. Nylander, I want to make sure I understand
12 that your proposed -- the current proposal for the
13 temporary standards language.

14 In your rebuttal testimony, which I think the
15 language may be changed a little bit from your
16 proposed -- from your petition -- your testimony, I
17 should say, in -- let's see -- the new section -- your
18 proposed language for the new Section 10, subsection F,
19 paragraph (4)(a), "A petition for a temporary standard
20 variance shall: identify the current applicable
21 standards, the proposed temporary standard, the
22 permittees, and the surface waters of the state." (As
23 read.)

24 So you're no longer saying that the permittees
25 need to be listed; is that correct?

1 MR. NYLANDER: Mr. Chairman, Commissioner
2 DeRose-Bamman, that is correct. We offered this morning
3 in my testimony that if the Commission wanted to have a
4 full, comprehensive temporary standard rule, that those
5 kind of additions and that were put out in the San Juan
6 Water Commission's language would be necessary.

7 However, we agreed that if the Commission
8 wanted to focus on a more narrow temporary standard and
9 just focus on criteria, that we would -- we would then
10 have no objection, and we wouldn't insist that the word
11 "permittee" or "designated use" be added to the
12 Department's proposal.

13 MS. DEROSE-BAMMAN: And that's -- I'm glad you
14 brought that up. That's in paragraph (2) -- or
15 subparagraph (2), which is really the one I wanted to
16 talk to you about. Thank you for helping me focus on
17 the right paragraph.

18 So what would the temporary standard look --
19 how would it look different if those other -- I
20 understand now designated uses may be -- we don't need
21 to include that, but what about -- why would it look
22 different if we were able to add permittees to this list
23 of the application?

24 MR. NYLANDER: Mr. Chairman, Commissioner
25 DeRose-Bamman, if the Commission were to add permittees

1 and/or -- and also designated uses, it would be a more
2 comprehensive tool that would very closely -- closely
3 mimic EPA's final rule on water quality standards
4 variances.

5 But if you prefer to approach this as more of
6 a site-specific criteria change on a short, temporal
7 period, then you wouldn't -- then you wouldn't need the
8 words "permittee" or "designated use."

9 And I -- I testified that the language that
10 the Department has proposed in their latest revised
11 petition of August or September of this year -- that we
12 have no objection to that language.

13 MS. DEROSE-BAMMAN: So by not including your
14 suggestion to add "or permittee(s)," it's not being any
15 more restrictive. We still -- by still -- the
16 permittees still can benefit from these temporary
17 standards applying to the water body segment, and even
18 if it wasn't applicable just to them, a permittee could
19 still --

20 MR. NYLANDER: Mr. Chairman, yes. The answer
21 is yes.

22 MS. DEROSE-BAMMAN: Okay.

23 Okay. Moving to the question about the
24 changes from secondary to primary contact -- I'm sorry.
25 Let me go back to the temporary standards for just one

1 second.

2 With the Environment Department, they had
3 described the use of antidegradation review as -- in the
4 limits that would be based on antidegradation review.

5 Have you seen the use of antidegradation
6 review before?

7 MR. NYLANDER: Mr. Chairman, yes, I have.

8 MS. DEROSE-BAMMAN: And in what -- what
9 situations?

10 MR. NYLANDER: I believe the last time I was
11 present at an antidegradation review sort of discussion,
12 it had to do with the outstanding national resource
13 waters. And that was the subject. I have not -- I have
14 not seen it at any other activities.

15 MS. DEROSE-BAMMAN: A question was raised
16 earlier on cross-exam that -- regarding technology-based
17 and water quality-based effluent limits. And the -- I
18 believe the question was, again, the application of a
19 temporary standard, what kind of effects will it have on
20 a -- for a discharger, essentially, in terms of the
21 effluent quality and the impact to the stream.

22 So there is the -- the rule -- or the EPA rule
23 does not allow a variance when the technology-based
24 limits are above anything less stringent than the
25 technology-based limits; is that correct?

1 MR. NYLANDER: That is correct.

2 MS. DEROSE-BAMMAN: And so does the proposal
3 meet that requirement? Does the Environment Department
4 meet that --

5 MR. NYLANDER: The Department's proposal does.
6 Yes.

7 MS. DEROSE-BAMMAN: And in most cases, when
8 a -- well, what kind of situations would there be --
9 would there be a limit in place for a permittee already
10 in the permits that's a water quality-based effluent
11 limit, already existing, and then the permittee
12 identifies a need to apply for a temporary standard? Do
13 you know of many situations where that would exist?

14 So -- is that clear?

15 MR. NYLANDER: Yes.

16 I think -- I think to get at the heart of what
17 you're questioning, if a temporary standard were granted
18 for a stream segment that was receiving a discharge from
19 a permittee, and, in essence, a water quality criteria
20 was basically lowered -- I don't mean make less
21 stringent -- for a specific amount of time, so that work
22 could be done on that water body -- as I understand the
23 Department's proposal, at the first opportunity they
24 have, they would use that revised criteria in
25 establishing water quality-based effluent limits in any

1 discharge permit that goes into that segment.

2 So I think if you have a less stringent
3 criteria, it could result in a water quality-based
4 limitation and permit that if it's based on it could be
5 a little bit more forgiving than, say, the previous
6 permit condition.

7 MS. DEROSE-BAMMAN: Okay. I don't -- yeah.
8 I'm not sure if the language actually is very clear on
9 how the standard would -- the actual number would be set
10 in the permit. And I realize it -- there's a
11 translation procedure usually between a standard and the
12 permit limit that is outside the standards themselves.

13 Now I'd like to move on to the secondary
14 prime -- secondary to primary contact changes.

15 MR. NYLANDER: Um-hum.

16 MS. DEROSE-BAMMAN: In looking at the criteria
17 that are specified in 98 -- Section 98 for intermittent
18 waters and Section 99 for perennial waters, they do --
19 those sections do specify secondary -- or primary
20 contact, but the criteria that are specified in those
21 sections are different than the general criteria for
22 primary contact in Section 900.

23 Do you know the basis for those -- those
24 levels?

25 MR. NYLANDER: Mr. Chairman, no, I do not.

1 I'm suspecting that that was an attribute of the outcome
2 of the 2009 triennial review, because the published
3 definition of those criteria have a different number for
4 bacteria.

5 And I'm trying to look for those in the
6 standards.

7 MS. DEROSE-BAMMAN: You are in your testimony
8 saying there is another option to use to maintain the
9 designated use as secondary contact but to require --
10 specify criteria that are protective of primary contact,
11 is what EPA's approved; is that correct?

12 MR. NYLANDER: Mr. Chairman, Commissioner,
13 yes, that is correct. You can retain a secondary
14 contact use for recreation as long as you have the
15 bacterial criteria set that is protective of the primary
16 use designated use. In other words, it's equivalent.

17 So you still label it as secondary contact,
18 but you're protecting it up to the degree of primary
19 contact.

20 MS. DEROSE-BAMMAN: But you did not -- did you
21 propose that -- numbers associated with that option in
22 your testimony, Mr. Nylander?

23 MR. NYLANDER: No, I did not. And it would
24 actually be just whatever the published numbers are in
25 the standards for primary contact use.

1 And I'm having difficulty thumbing through the
2 standards to find that citation, but -- oh, here it is.

3 Page 39 of the current standards, at least in
4 my copy, primary contact, the bacterial limit would be
5 126 colony-forming units per 100 mL. Secondary contact,
6 the bacteria requirement is 548 colony-forming organisms
7 per 100 mL.

8 So as I say, if you retain a secondary contact
9 designated use but elevate the criteria to the primary
10 contact criteria of 126, then you're fully supporting
11 the EPA's 101(a)(2) goals for recreation. That is
12 allowed by the EPA.

13 MR. HUTCHINSON: On that point?

14 So you're really not changing anything, it's
15 just a matter of semantics at that point.

16 MR. NYLANDER: Mr. Chairman, Commissioner
17 Hutchinson, the very subtle difference is that you
18 didn't upgrade the designated use to primary contact
19 and -- and then find yourself down the road needing to
20 do a UAA study to ever downgrade it again.

21 You can simply keep that a second contact --
22 in fact, you could go back to all of your standards that
23 have primary contact and change them all to secondary,
24 as long as the criteria that goes along with that were
25 the criteria earmarked for primary. So you're just

1 keeping the criteria rigorous, but you can call it a
2 different designation, a subcategory designation under
3 recreational use.

4 There are some advantages to that in the sense
5 that you don't find yourself at some point in time
6 having to do a UAA, and that's a cost savings.

7 MR. HUTCHINSON: So you'd only be required in
8 the semantic change to do a UAA, but if you change the
9 criteria, you don't have to.

10 MR. NYLANDER: That's correct.

11 MR. HUTCHINSON: Okay. Thank you.

12 Thank you, Commissioner.

13 MS. DEROSE-BAMMAN: Looking at the language
14 from the final water quality standards regulation
15 document that the NMED counsel helped us direct,
16 there -- the footnote on page 51024 -- and it's footnote
17 14, it's in the bottom of the middle column -- where
18 it's specifically saying that a secondary contact
19 recreational use -- recreation use is not really a
20 subcategory of 101(a)(2) uses.

21 And this goes back to the documentation that
22 was given to support the change from secondary to
23 primary.

24 This phrase, "there is a low likelihood of
25 full body immersion in water or incidental ingestion,"

1 do you know what low likelihood means?

2 MR. NYLANDER: Mr. Chairman, Commissioner
3 DeRose-Bamman, no, I do not. It's not defined in this
4 footnote.

5 I believe when compared to the definitions for
6 secondary contact and primary contact, you know, the
7 primary contact says you have to have some prolonged
8 exposure and a very much possibility of ingesting an
9 appreciable quantity of water, whereas a low likelihood
10 would be, you know, you riding in a boat or you're
11 wading in a stream and it's low likelihood that you
12 would be ingesting water.

13 MS. DEROSE-BAMMAN: Does that mean zero?

14 MR. NYLANDER: No, it doesn't mean zero. I
15 mean, people can fall out of a boat and then clamor back
16 in, and that's still not a prolonged immersion in the
17 water.

18 MS. DEROSE-BAMMAN: I don't have any more
19 questions, Mr. Chairman.

20 Thank you.

21 MR. DOMINGUEZ: Commissioner Tongate.

22 MR. TONGATE: Good morning, Mr. Nylander.

23 MR. NYLANDER: Good morning.

24 MR. TONGATE: As a preface to my question, I
25 just want you to be aware that your reference to the

1 schizophrenia of the Environment Department, my opinion
2 of EPA and their methods has not changed significantly
3 over the past 23 years. I don't feel like I'm
4 personally schizophrenic.

5 MR. NYLANDER: I appreciate that.

6 MR. TONGATE: Commissioner Hutchinson asked
7 some of the questions I was going to ask regarding the
8 presumable -- rebuttable presumption, and he mentioned
9 federal and state agencies and their land use planning.

10 You said that that would be impacted by the
11 fact that they're -- all potential water bodies were
12 presumed to be intermittent unless proven otherwise.

13 Do you think there would be a huge amount of
14 petitions from those agencies in order to be classified
15 as ephemeral?

16 MR. NYLANDER: Mr. Chairman, Commissioner
17 Tongate, I believe my -- my answer to Commissioner
18 Hutchinson basically regarded the fact that if federal
19 and state land resource agencies have water bodies on
20 their land that fall under the definition of
21 intermittent waters, as published in 20.6.4.98, and
22 they're nonperennial unclassified waters, they haven't
23 gone through any UAA type study, that when they do land
24 management activities, that they would have to take into
25 consideration what the state standards and designated

1 uses are for those water bodies, which include the
2 livestock watering, wildlife habitat, primary contact
3 recreation and marginal warm water aquatic life.

4 So they would have to be aware that those
5 waters are truly under this goal of being protected for
6 those kind of designated uses.

7 And I don't know if they would -- if they
8 would come to the Department for a -- for a review of
9 their land management activities or to make sure that
10 they're not somehow compromising the water quality
11 standard in that section for those kind of water bodies.

12 The agency that has nonperennial unclassified
13 waters might decide to do some restoration work and --
14 and want to apply as a petitioner to take advantage of a
15 new temporary standard, something like that, but I -- I
16 just don't -- it's uncertain, because the whole universe
17 of the state's waters is now embedded in that .98
18 section of the standards.

19 I mean, that's pretty much everything except
20 for the segments that are in the classified segment of
21 the standards and -- and listed under ephemeral waters.

22 So you have the preponderance of New Mexico's
23 water bodies, including everything that comes under the
24 definition of waters of the state embedded in .98 and
25 presumably with uses as goals that include fishing and

1 swimming.

2 So I see it as a -- as a conundrum. I see it
3 as a possible point of conflict in the future,
4 because -- and these -- these -- the standard at .98 and
5 .97 -- these standards were adopted in 2009 as a result
6 of EPA insistence that their rebuttable presumption must
7 prevail.

8 MR. TONGATE: In regard to private land owners
9 or farmers, ranchers, do you foresee the impact on them
10 as far as having to file a petition?

11 MR. NYLANDER: Mr. Chairman, Commissioner
12 Tongate, I don't -- I don't see a burden as far as
13 filing a petition, because -- I'm presuming you're
14 saying a petition for a temporary standard, for
15 instance?

16 MR. TONGATE: Well, I'm -- reclassification of
17 a water body.

18 MR. NYLANDER: I do -- I do see a burden in
19 the sense that all of those unclassified nonperennial
20 waters that might be on private land are now being
21 protected for swimming and fishing under these standards
22 that exist, and -- and so private land owners may have
23 an issue with something they do on their land that might
24 compromise the goal of that standard.

25 And it's a little more confusing than that,

1 because the standards are now enforceable under the
2 Water Quality Act as a result of the Water Quality Act
3 amendments in 1993. So it's -- it's -- there's a large
4 gray area there that, you know, people could create some
5 mischief.

6 MR. TONGATE: Okay. Thank you.

7 MR. DOMINGUEZ: Mr. Hearing Officer,
8 considering where we are timewise, and we still have
9 additional Commissioner questions that we probably
10 should defer until after lunch, I will defer back to you
11 for a public comment session.

12 MR. CHAVEZ: Thank you, Mr. Chairman, members
13 of the Commission.

14 At this time, what I want to do is take public
15 comment. Upon the conclusion of public comment, we will
16 break for one hour for lunch.

17 So -- and if the witness -- please feel free
18 to leave your documents there as we'll continue with you
19 right after lunch.

20 So looking into the audience, is there anybody
21 here for public comment?

22 Please approach, sir.

23 Please approach.

24 Please have a seat, state your name, and
25 you'll be sworn in for the record.

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JON KLINGEL

having been first duly sworn or affirmed, gave
public comment as follows:

PUBLIC COMMENT

THE REPORTER: Would you state your full name
and spell it, please.

MR. KLINGEL: Jon Klingel, J-O-N
K-L-I-N-G-E-L.

I just have a few brief comments today dealing
with New Mexican mollusks and aluminum.

My name is Jon Klingel. I've been a resident
of New Mexico for about 38 years. I'm a retired
biologist by profession.

I was originally scheduled to provide
technical testimony regarding Segment 128; however, that
issue has apparently been resolved, at least
temporarily, and I understand my testimony has been
withdrawn. Although I'm a member of the board of Amigos
Bravos, I provide my comments today in my individual
capacity. My comments are related to aluminum.

New Mexico has 23 species of extant mussels
and one species presumed extirpated. Many of these
species are currently in trouble, listed as New Mexico
endangered or threatened, candidates for listing under
the Endangered Species Act, and other status categories

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1 of concern.

2 New Mexico currently has a standard for
3 aluminum concentration based on hardness of water,
4 according to my understanding. West Virginia proposed
5 what I understand is a similar standard. Letters from
6 the US Environmental Protection Agency and the US
7 Fish and Wildlife Service regarding that proposal made
8 it clear that the standard did not protect mussels.
9 West Virginia withdrew their proposal.

10 Some comments from the Fish and Wildlife
11 Service letter:

12 "Freshwater mussels are among the most
13 endangered groups of organisms in North America."

14 "As currently proposed, the revision to water
15 quality standards would not be protective of native
16 freshwater mussels. Based on our review of the
17 literature, potential exists for the application of this
18 hardness-based criterion to severely modify the feeding
19 behavior of federally listed mussels."

20 "Furthermore, a study conducted with two
21 different freshwater mussels demonstrated that as filter
22 feeders exposure to and accumulation of aluminum are not
23 significantly related to water hardness. In both
24 species, the ambient pH had a significant effect on the
25 accumulation in the gills, whereas the effect of water

1 hardness was only of minor importance."

2 "The Service contends that hardness should not
3 be considered in setting the standard to protect
4 mussels."

5 "Based on these studies, we recommend the
6 chronic standard for the protection of all native
7 freshwater mussels be no higher than 250 micrograms per
8 liter dissolved aluminum with no hardness adjustment."
9 (As read.)

10 One additional comment from the EPA letter:
11 "The proposed chronic values generated using West
12 Virginia's proposed hardness-based equation are
13 approximately three to six times higher than the chronic
14 criteria value recommended as protective of mussels by
15 US Fish and Wildlife Service." (As read.)

16 It seems likely the current New Mexico
17 standard based on hardness of water does not protect our
18 mussels.

19 But it gets worse. I contacted a biologist
20 who specializes in mollusks and crustaceans, and I asked
21 her if aquatic gastropods related to mussels were
22 sensitive to this type of contamination or was it just
23 mussels that were sensitive.

24 His answer, and I quote, "They are equally
25 sensitive."

1 We have 37 species of aquatic gastropods in
2 New Mexico. They include both federal and state
3 endangered species as well as other status categories of
4 concern.

5 In summary, this means to me that our aquatic
6 mollusks are unprotected from aluminum poisoning. This
7 includes a total of 60 extant species of mollusks. They
8 occur in at least 17 New Mexico counties.

9 Legal status of these:

10 Five are federal endangered.

11 One is federal warranted but precluded.
12 That's precluded from listing on the Endangered Species
13 Act by higher priorities but will probably eventually be
14 listed.

15 One federal candidate. That's the first step
16 towards being listed on under the Endangered Species
17 Act.

18 Eight species are New Mexico endangered.

19 Nine New Mexico threatened.

20 Nine New Mexico endemic species. They occur
21 nowhere else in the world.

22 Twenty-one species are species of -- New
23 Mexico species of greatest conservation need.

24 Ten Forest Service in Region 3.

25 And three are Bureau of Land Management

1 sensitive in New Mexico.

2 The bottom line, many of our aquatic mollusks
3 are already in trouble. Water quality problems are
4 likely one of the primary reasons. This Commission
5 clearly needs to set standards that protect our
6 wildlife.

7 Thank you for the opportunity to comment.

8 MR. CHAVEZ: Thank you, sir.

9 MR. KLINGEL: Questions?

10 MR. CHAVEZ: There will be no questions. This
11 is just public comment at this time.

12 MR. KLINGEL: Okay.

13 MR. CHAVEZ: Appreciate it.

14 MR. KLINGEL: Sure.

15 MR. CHAVEZ: Is there anybody else who would
16 like to provide public comment at this time?

17 Sir, please come forward.

18 MR. MORGAN: Good morning.

19 MR. CHAVEZ: Please state your name for the
20 record and get sworn.

21 MR. MORGAN: My name is James P. Morgan.

22

23

24

25

1 JAMES P. MORGAN

2 having been first duly sworn or affirmed, gave
3 public comment as follows:

4 PUBLIC COMMENT

5 MR. MORGAN: May I proceed?

6 MR. CHAVEZ: Please proceed.

7 MR. MORGAN: Okay.

8 I have comments and considerations with
9 respect to the hardness-based aluminum standard. Okay?

10 I'm a retired instructor and research chemist.
11 I do not have any specific experience in the matter of
12 aluminum chemistry or toxicity, but I have made it a
13 point to research what information is available.

14 And my comments are only mine. I do belong to
15 several water conservation organizations in Northern New
16 Mexico, but my comments are simply mine. Okay?

17 And I have three basic considerations with
18 respect to the chemistry involved with the
19 hardness-based aluminum standard that I would ask the
20 Commission to consider.

21 The first consideration is that the values --
22 the concentration values generated by the hardness-based
23 standard are exceptionally large compared to what they
24 had been previously, as I think people are aware, and I
25 think that the Commission needs to consider if even

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1 these water concentration standards for aluminum are
2 even -- or would be within the New Mexico surface water
3 quality, because there are solubility constraints for
4 aluminum. And that has to be considered with respect to
5 these aluminum concentrations.

6 The second comment and consideration is that
7 in the studies that were done to determine the toxicity
8 levels it must be certain that the concentrations used
9 were obtained from the reaction media, not simply from
10 concentrations that were added to make the solutions.
11 And that is a critical factor with respect to the
12 development of the parameters in the hardness-based
13 equation and in the determination of both the slope and
14 the bias of values.

15 And what I think is true is that for all those
16 studies that were used those concentrations were simply
17 either not determined, not available, or they were not
18 used in the determination of the basic parameters for
19 the hardness-based equation. That's a critical factor.

20 The third comment and with respect to the
21 chemistry is that it is a basic tenet of chemical
22 thermodynamics that it is not permissible to treat the
23 content of a solid as having a concentration other than
24 one. And unfortunately, that was done in several of the
25 calculations that were used in the formulation of the

1 hardness-based standard.

2 So those are my comments and considerations
3 with respect to the aluminum hardness-based standard.
4 But I think it is really contingent upon the Commission
5 to consider all of the proper documentation that should
6 be required for the analysis of this hardness-based
7 standard, should not rely on secondary information or
8 opinions.

9 I think it should be the responsibility of the
10 Commission to examine any documentation that was used to
11 formulate the hardness-based standard.

12 As far as recommendation, I would say that if
13 it is not found that the hardness-based aluminum
14 standard meets at least those three criteria, then it
15 should not be maintained. If it was not to be
16 maintained, then some other aluminum standard should be
17 in place, either the previous standard in New Mexico,
18 which is -- was dissolved-based consideration, or the
19 current federal standard, which is total recovery, or
20 possibly even the ligand possibility that is being
21 considered by the EPA.

22 So that concludes my comments, and I would be
23 willing to entertain any questions.

24 MR. CHAVEZ: Sir, at this point, we appreciate
25 that. This is just public comment.

1 MR. MORGAN: That's it?

2 MR. CHAVEZ: Yes.

3 MR. MORGAN: Thank you very much.

4 MR. CHAVEZ: Thank you.

5 Anybody else in the audience want to give
6 public comment at this time?

7 Please approach, ma'am.

8 MS. BONIME: My name is Karen Bonime, and
9 that's spelled
10 B-like-boy-O-N-like-Nancy-I-M-like-Mary-E.

11 MR. CHAVEZ: Please swear the witness in.

12 KAREN BONIME

13 having been first duly sworn or affirmed, gave
14 public comment as follows:

15 PUBLIC COMMENT

16 MS. BONIME: One of the things I'm concerned
17 about --

18 MS. GREENWALD: Can't hear you.

19 MS. BONIME: Oh, sorry.

20 One of the things I'm concerned about when I
21 hear about increasing the standards for aluminum allowed
22 into our surface waters is that some of our surface
23 waters are becoming, with, of course, a lot of
24 treatment, part of our drinking water, and -- such as
25 the Rio Grande. I believe 40 percent of Albuquerque's

1 water is now taken from the Rio Grande project, and it
2 may increase in the future.

3 And the reason I'm concerned about aluminum in
4 that water is the connection that has been made between
5 ingestion of aluminum and the development of Alzheimer's
6 disease.

7 I'm also concerned because of the river water
8 that is used for agriculture. I'm sorry, I can't cite
9 evidence on this, but I have read that when chemical
10 fertilizers were first introduced, aluminum uptake by
11 plant roots increased substantially, and there was
12 concomitant increase in certain diseases human -- among
13 humans. I'm sorry, I can't tell you which they were.
14 It's been almost 50 years since I read this.

15 But I would like the Commission to look at
16 possible increases in -- in crop plants uptake of
17 aluminum, which might result from increased aluminum
18 dissolved in the river waters, in the surface waters.
19 And I know we're talking mainly about ephemeral waters,
20 but some of these ephemeral waters do end up in the
21 larger streams, I believe.

22 Am I right on that?

23 MS. GREENWALD: Yes.

24 MS. BONIME: Anybody?

25 MS. GREENWALD: Yes. You're right.

1 MS. BONIME: Okay.

2 So adding aluminum to the ephemeral waters
3 means possibly adding aluminum to the food we eat and to
4 our drinking water. I'm very concerned about that, and
5 I hope that the Commission will -- will take that into
6 consideration in evaluating any changes to the
7 standards.

8 Thank you.

9 I'm a member of the water groups, and although
10 I don't speak for that organization, I'm speaking for
11 myself. And I do not have a degree in chemistry or
12 anything, but I do have a bachelor's degree from Harvard
13 University, and I read a lot of scientific literature.

14 So I'm grateful for the opportunity to offer
15 my comments. Thank you very much.

16 MR. CHAVEZ: Thank you, ma'am.

17 Anybody else wish to give public comment at
18 this time?

19 Sir, please come forward.

20 MR. FLOOD: My name is Michael Flood. I'm a
21 resident of Angel Fire, New Mexico.

22 THE REPORTER: Spell your last name, please.

23 MR. FLOOD: Flood, F-as-in-Frank-L-O-O-D.
24
25

1 MICHAEL FLOOD

2 having been first duly sworn or affirmed, gave
3 public comment as follows:

4 PUBLIC COMMENT

5 MR. FLOOD: I am retired. I occasionally
6 serve as a consultant in chemistry and toxicology. I
7 received my PhD in chemistry from Columbia University in
8 1970. I spent time in Brazil as a National Academy of
9 Sciences overseas research fellow.

10 I was a postdoctoral fellow in inorganic
11 chemistry at Stanford University from 1973 and '74. I
12 was then assistant professor of chemistry at Beloit
13 College, Beloit, Wisconsin, for three years, and one of
14 the courses I taught included a course in aquatic
15 chemistry.

16 I spent 18 years in the government, both EPA
17 and FDA, not related to this at all, just as a
18 chemist -- resident chemist. But from 1995 until I
19 retired last year, I served as a staff scientist at the
20 Washington, DC law firm Keller and Heckman. I performed
21 risk assessments for directing incidental additives in
22 the diets of humans and livestock.

23 I specialized in toxicology during this time.
24 Some of the projects with which I was involved included
25 the safety of aluminum compounds when present as

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1 incidental components in the diets of livestock. I am
2 familiar with the mammalian toxicology of aluminum.

3 I believe my background is relevant to this
4 discussion in that the aluminum present in natural
5 waters may ultimately be ingested by humans, whether
6 directly as drinking water or indirectly through plant
7 and animal food containing aluminum from these waters.
8 The higher the aluminum concentration in these waters,
9 the higher the potential human exposure.

10 So therefore, I speak in support of the
11 proposal to return the aluminum standards to the
12 previous ones set by EPA, that is 750 milligrams per
13 liter and 87 milligrams per liter for acute and chronic
14 exposure based on total recoverable aluminum. Efforts
15 should be made to minimize the aluminum concentration in
16 an aquatic system.

17 As you probably may know, aluminum is the
18 third-most common element in the earth's crust and the
19 most common metal. Aluminum is not known to have any
20 beneficial use in the human body. It is not an
21 essential trace element. However, it is not inert, but
22 a known neurotoxin, as demonstrated in numerous
23 toxicology studies on rats and mice.

24 In fact, toxicology studies on aluminum have
25 been summarized in at least four recent national or

1 international documents. The more -- the most recent
2 one is that of the Joint FAO/WHO Expert Committee on
3 Food Additives, JECFA, in 2011.

4 Long-term studies as well as reproductive
5 development studies have shown neurobehavioral effects
6 such as impaired learning in maze tests. Aluminum
7 concentrations have increased in the brains of those
8 animals.

9 The JECFA evaluation established a provisional
10 tolerable weekly intake for aluminum of 2 milligrams per
11 kilogram body weight per week. A weekly intake was
12 deemed appropriate than a daily intake due to the
13 cumulative nature of aluminum after exposure.

14 JECFA concluded that for adults estimates of
15 mean dietary exposure to aluminum-containing food
16 additives may approach the weekly provisional tolerable
17 intake. But for children, dietary exposure can exceed
18 the PTWI by up to twofold. These estimates assumed low
19 aluminum contribution from drinking water on the order
20 of .1 parts per million.

21 Given the known toxicity of aluminum, it is
22 prudent to go with the earlier EPA recommendation. I
23 think any studies to raise that limit, which are the
24 current limits of New Mexico, which apparently are the
25 least conservative in the nation, should at least be

1 up-to-date studies in accordance with established
2 protocols, perhaps protocols approved by EPA.

3 The current New Mexican standard exceeds EPA
4 acute criteria of 1988 by factors as high as 13 percent
5 and chronic criteria by factors as high as 46 percent.
6 I think for the safety of the people in New Mexico,
7 these should be revisited.

8 I thank you very much for the opportunity to
9 speak with you.

10 I speak as a personal representative.

11 MR. CHAVEZ: Thank you very much, sir.

12 Anyone else wish to give public comment at
13 this time?

14 Seeing none, I'll go ahead and -- ma'am,
15 please step forward.

16 MS. DIAZ'-D'OUVILLE: Thank you, sir.

17 SYLVIANA DIAZ-D'OUVILLE

18 having been first duly sworn or affirmed, gave
19 public comment as follows:

20 PUBLIC COMMENT

21 THE REPORTER: And state and spell your full
22 name, please.

23 MS. DIAZ-D'OUVILLE: My name is Sylviana
24 Diaz-d'Ouville.

25 And I'm not coming as any particular

1 individual with information about science or anything
2 else. Basically I'm coming as an appalled citizen of an
3 organization that would permit any more pollutants into
4 our water.

5 New Mexico's water is so precious. Ephemeral
6 ponds pouring so much life to the brief moments they are
7 there. I do not understand why anybody would consider
8 allowing more pollutants into the very precious water
9 that we have, and the fact that the population is
10 growing and demanding on it more, demanding more water.

11 I come from a mining community. There was a
12 tiny, little, narrow creek at one point. It was a
13 pretty, little creek. We had Russian olives, we had
14 willows. But then the copper mine over at Santa -- at
15 Santa Rita started letting things down. Pretty soon it
16 was a green, nasty-looking puddle.

17 We were fascinated with it, because whenever
18 it really foamed up, it foamed all this multi-colored
19 foam. And it was hard. But we couldn't walk in it. It
20 would rot our shoes out. Couldn't play in it. There
21 was no such thing as playing in it. And it would kill
22 all the trees and all the little tadpoles we get from
23 time to time.

24 We cannot permit any more toxins, whether it's
25 aluminum, chromium or whatever else some idiot polluter

1 decides. It is cheap and easy, and we're an easy state
2 to dump into, to dump into our water.

3 I suggest we keep our standards really, really
4 high and keep any more pollutants from entering what
5 precious water we have left.

6 Thank you.

7 MR. CHAVEZ: Thank you, ma'am.

8 Anyone else wish to give public comment at
9 this time?

10 Seeing none, we're going to break until 1:15,
11 at which point we will resume the hearing.

12 Thank you.

13 (Proceedings in recess from 12:08 p.m. to
14 1:15 p.m.)

15 MR. CHAVEZ: We're back on the record.

16 At this time, I would like to continue with
17 questions from the Commission.

18 So, Mr. Chairman, I'll turn it back over to
19 you.

20 MR. DOMINGUEZ: Thank you, Mr. Hearing
21 Officer.

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CHARLES L. NYLANDER

having been previously duly sworn or affirmed, was
examined and testified further as follows:

CROSS EXAMINATION (Resumed)

BY THE COMMISSION:

MR. DOMINGUEZ: Commissioner Tongate, you had
left off.

Commissioner Dawson.

MR. DAWSON: My question was already asked by
another Commissioner.

Thank you.

MR. DOMINGUEZ: Okay.

Commissioner Waters.

MR. WATERS: Thank you, Mr. Chairman.

Mr. Nylander -- and I appreciate -- I've
listened to the questions from Commissioner Hutchinson
and DeRose-Bamman, and that was, you know --
particularly the questions regarding the -- the change
of use designation for the streams from the secondary to
primary, and the questioning on that.

Also I listened to the exchange between
yourself and the counsel for the Environment Department,
and I think that clarified some things, and it, if
you'll excuse the expression, muddled up the water for
some other things.

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1 So I guess what I need to do is clarify it in
2 my mind. So excuse me if it sounds like I'm repeating
3 some of the questions.

4 But is it your understanding that from what
5 the Environment Department counsel addressed with you,
6 that the upgrading the designation from a secondary to a
7 primary use designation does not require a UAA?

8 MR. NYLANDER: That is my understanding and my
9 belief, that you don't have to do a UAA if you're
10 upgrading the use, you only have to do it if you're
11 downgrading.

12 MR. WATERS: Downgrading the use. Okay.

13 And is it your position that the Environment
14 Department basically did not have enough empirical
15 evidence -- per your quoting of the EPA handbook in
16 question, that they did not bring to bear enough
17 empirical evidence to justify the change of this use
18 designation from a secondary to a primary?

19 MR. NYLANDER: Yes, it is, Commissioner. I
20 didn't find the evidence really compellingly supportive
21 of upgrading those uses to primary. It was more
22 speculative based on anecdotes and on basically, I
23 think, their rebuttable presumption understanding that
24 they just wanted to do it.

25 MR. LONGWORTH: Mr. Chairman, on that point?

1 MR. DOMINGUEZ: Yes.

2 MR. LONGWORTH: I'm sorry.

3 Commissioner Waters, just on that point?

4 MR. WATERS: Um-hum.

5 MR. LONGWORTH: Mr. Nylander, we talked -- you
6 said empirical evidence.

7 Was there any quantitative or qualitative
8 evidence provided to make the change from -- to upgrade
9 the -- these nine segments?

10 MR. NYLANDER: Mr. Chairman, Commissioner
11 Longworth, there were statements in the reasons for the
12 change under different segments that talked about people
13 observing people swimming in the water or web site
14 information promoting the use of water for the public,
15 those kind of things. They were more qualitative.

16 I think -- I didn't remember seeing any real
17 demonstrative, quantitative information that -- you
18 know, with documented observations and dates and -- and
19 that sort of thing, to say that people indeed were using
20 that water for swimming.

21 I think -- the example, I think, of Brantley
22 Reservoir, I think they did say that the web site for
23 that recreational area does provide for boating and for
24 SCUBA diving and game fishing and that sort of thing.

25 So they're tying in some collaborative and

1 corroborating statements, but I didn't think that in
2 total, when I looked at all nine segments -- I didn't
3 think that it kind of met the threshold of real sound
4 evidence that those uses were attainable.

5 MR. LONGWORTH: Thank you, Mr. Chairman.

6 Thank you, Commissioner.

7 MR. DOMINGUEZ: Back to you, Commissioner
8 Waters.

9 MR. WATERS: Thank you, Mr. Chairman.

10 Well, following up on that, then, are you
11 aware of any regulatory reason or any -- anything out
12 there that would prohibit the Environment Department
13 from providing a more empirical justification for the
14 upgrading? Is there anything out there that would
15 prohibit them from doing that, for -- in the regulations
16 or the statutes?

17 MR. NYLANDER: Mr. Chairman, Commissioner
18 Waters, no. I don't think anything would prohibit them
19 from gathering more information.

20 And as I stated, EPA has already, in both the
21 Water Quality Standards Handbook and in their Record of
22 Decision on the 2005 triennial, indicated that another
23 option for protecting secondary contact waters for
24 occasional primary contact use would be just to raise
25 the bacterial criteria for those segments, in line with

1 what's protective of primary use, and leave the standard
2 at secondary.

3 And I -- in answering a question to
4 Commissioner Hutchinson, I said the advantage of that is
5 just that -- that EPA will approve that as fully
6 protective of the 101 use for recreation, but it then
7 allows you not to in the sometime future have a primary
8 contact designation. And you'd like to lower it, and
9 when you lower it, you have to do the use attainability
10 analysis.

11 So the shortcut way to do it without putting
12 yourself in jeopardy would be leave it secondary contact
13 and just increase the bacterial criteria to that for
14 primary.

15 MR. WATERS: Thank you.

16 That's all I have, Mr. Chairman.

17 MR. DOMINGUEZ: Okay.

18 Commissioner Sayer.

19 MR. SAYER: I just had one question.

20 It seems to me that the gist of you and your
21 clients' concern -- and I think it's reasonable -- is
22 the cost associated with compliance, if we're talking
23 about more fishable/swimmable waters, if we're talking
24 about a narrower temporary standard, and if we're
25 talking about, you know, your concerns about ephemeral

1 designations.

2 So correct me if I'm wrong, but it seems to me
3 that that is the gist of your concern, is the cost
4 associated with -- with all of those and the
5 transactional cost issues as you identified them in your
6 declaration.

7 Is that -- would that be a fair assessment on
8 my part?

9 MR. NYLANDER: Mr. Chairman, Commissioner
10 Sayer, yes. That's a -- that's a fair assessment.

11 And I feel like the parties that went through
12 the UAA process to downgrade their designated uses for
13 waters that were previously in Section 98 for
14 nonperennial -- nonperennial waters, that they had to
15 have some kind of an associated business cost in mind as
16 to why they would have taken the effort to spend money
17 on doing the UAA to move themselves over into the
18 ephemeral water category that has a little bit more
19 relaxed designated uses.

20 And so there has to be some motivation from a
21 business standpoint of why you would want to get out of
22 that intermittent water category and over into the
23 ephemeral category.

24 And I think that just -- this is all tied up
25 with the rebuttable presumption adoption in the

1 standards and the fact that the whole universe now is
2 out there with streams that have this fishable/swimmable
3 designated use and primary contact and marginal warm
4 water fishery and -- and that there are -- it's costly
5 to have to go through the process to put those in the
6 ephemeral category if you truly think that that's where
7 they belong.

8 And I just -- I find it kind of, oh, a
9 ridiculous proposition to protect all of the 100,000
10 miles of streams and water bodies, wetlands, playas and
11 so forth, for swimming and fishing and -- and the fact
12 that those uses, you know, in common sense are not
13 attainable. It mixes -- it mixes the whole thing up.

14 MR. SAYER: So I think it's probably
15 indisputable, probably, that in a perfect world we would
16 all want fishable/swimmable waters everywhere, you know,
17 in a perfect world. But we have limitations that we all
18 recognize, and certainly costs -- the directed
19 transactional costs associated with compliance. And
20 attaining those -- those standards certainly is relevant
21 and reasonable.

22 I guess my question, though, is, as you've
23 acknowledged and others have noted here this morning,
24 this afternoon now, there are direct and indirect costs
25 associated with water that is not fishable/swimmable,

1 right?

2 And so I'm wondering if your client has done
3 any cost assessments to demonstrate or to -- they could
4 show the Commission that would say, look, it is more
5 costly to designate more waters fishable/swimmable, it
6 is more costly to do these UAAs, than it is to protect
7 the water and to have a higher -- you know, a higher use
8 designation.

9 I mean, does that make sense?

10 MR. NYLANDER: Mr. Commission -- Commissioner
11 Thayer -- Sayer, it does, and it doesn't, in that -- you
12 know, my -- I guess my -- my point really is that right
13 now the standards protect all the unclassified
14 nonperennial waters of the state for swimming and
15 fishing.

16 And when you look at the definition of waters
17 of the state, and you see all the categories that it
18 applies to -- I mean, we're talking about all the
19 arroyos, the washes, the wetlands, playa lakes --
20 certainly this state is not intent on trying to create
21 fishable waters out of an arroyo or swimmable waters out
22 of an arroyo.

23 And I'm just saying that the way that that
24 category reads in Section 98, that it's -- it would be
25 an impossible task to really meet those designated uses

1 in all those kinds of water bodies, and yet, because of
2 the wording now in that section of the standards, that's
3 what it -- that's what it portends to do.

4 And I -- I think that EPA in recent
5 correspondence has said that, well, now that, you know,
6 primary contact and marginal warm water fisheries has
7 been adopted for all these nonperennial waters of the
8 state, we need to start talking about wetlands, and we
9 need to start developing a, you know, more rigorous
10 program on wetlands.

11 And I'm just saying that these are typically
12 common sense-wise water bodies that you never envisioned
13 in your whole life would ever be swimmable/fishable.

14 MR. SAYER: I guess my question, though, is --
15 because I think -- I understand what you're saying, but
16 it seems to me it's premised on the position that the
17 direct and indirect costs of the position you're
18 advocating are greater than the direct and indirect
19 costs of the position that the Department has taken in
20 the rule as they -- as they have put it forward.

21 MR. NYLANDER: Yeah. Mr. -- Mr. Chairman and
22 Commissioner Sayer, yes. I mean, I am testifying that
23 there is some really significant cost implications
24 involved in the way it's set up now.

25 MR. SAYER: So that was my question, is have

1 you articulated those costs? Has your client done
2 anything to say here are the costs?

3 Because I see your -- your declaration --

4 MR. NYLANDER: Right.

5 MR. SAYER: -- and it seems to be rather
6 conclusory without any, you know, substance to back it
7 up.

8 MR. NYLANDER: Mr. Chairman, Commissioner
9 Sayer, in my -- in my direct and rebuttal testimony, I
10 did include some cost information that did show that
11 basically there were costs for the Environment
12 Department to do the UAA analyses on the 19 segments
13 that they -- that they've proposed for adoption in this
14 triennial, that they spent money on outside consultants,
15 they certainly spent money on internal resources.

16 They would argue that, you know, divided --
17 all the money they spent divided into the 19 segments,
18 that it wasn't very much money. But it's still money.

19 And then I also provided information about the
20 five segments being moved into the ephemeral category
21 that Chino Mines is proposing, and there the cost
22 estimate was north of \$150,000 that was spent over a
23 four-year time period to accomplish that.

24 And I'm just saying that it's going to vary
25 from petitioner to petitioner how much money it will

1 cost them to get a water body out of Section 98 and into
2 97, and -- and that even the most simple level 1
3 hydrology protocol sort of analysis -- most consulting
4 firms I've talked to, that would be a minimum of
5 \$10,000, just to go through that initial screening
6 process.

7 So I -- you know, statewide with over 100,000
8 miles of these kind of streams and -- I just think it's
9 going to have unintended cost implications for the
10 state.

11 MR. SAYER: All right. Thank you.

12 Mr. Chairman, no --

13 MR. DOMINGUEZ: Okay.

14 Mr. Nylander, a little bit of a follow-up from
15 the two previous Commissioners' questions.

16 You've talked about your proposed alternative
17 of moving from secondary to primary and changing the
18 bacteria level.

19 Going with that hypothetical, if that was
20 done, and a water body couldn't meet that bacterial
21 criteria down the road, we find out that they can't hit
22 that higher level, what would be the process and the
23 cost associated with then lowering the bacteria level
24 back down to where it was originally as a secondary
25 contact?

1 MR. NYLANDER: Mr. Chairman, Commissioner
2 Dominguez, I -- I think if we're talking about those
3 nine segments that have been proposed to be raised from
4 secondary contact to primary contact, if you do make
5 that change to primary, you're going to adopt the
6 primary bacterial criteria in any case.

7 And if you leave the use at secondary and
8 in -- and elevate the bacterial criteria to what would
9 normally support primary, either way, if the stream then
10 is shown ultimately that it's not meeting that
11 particular criteria, then a water body goes on the
12 303(d) list, and there will be efforts made to try to
13 figure out where the source of the bacteria is coming
14 from.

15 And if it's point source or nonpoint source
16 contributions and -- and ultimately there may be some --
17 if there's an NPDES permitted discharger on that
18 segment, ultimately they may get a more restrictive
19 permit requirement for bacteria, that sort of thing.

20 But I think there -- whenever a stream is not
21 meeting a criteria, then you could just presume that
22 there could be cost implications for trying to correct
23 that.

24 MR. DOMINGUEZ: Right. And that's part of
25 the -- I was just trying to come up with somewhat of a

1 comparison, because you've focused on that if down the
2 road one of those that has been moved to primary wants
3 to be moved back to a second it requires a UAA and the
4 costs associated with that.

5 So I'm trying to compare that, since you've
6 focused on the -- the cost and the process to go through
7 that, compared to your proposal of just changing the
8 bacteria level, but there's still going to be something
9 involved with that. And so I'm just trying to compare
10 those.

11 MR. NYLANDER: And, Mr. Chairman, I think the
12 distinction is that if the criteria either way are the
13 primary contact bacteria criteria, and if they're not
14 met, then down the road there may be some costs in
15 trying to solve the source of the -- of the increased
16 bacteria.

17 But the real benefit, as I mentioned to
18 Commissioner Howard -- Hutchinson, is the cost avoidance
19 of staying at secondary contact, that you don't find
20 yourself having to do a UAA. If you go to primary
21 contact and at some point in time you say, gee, this
22 stream just really can't -- bacteria-wise it can't
23 attain that, and we want to -- we want to downgrade it
24 to secondary with a more relaxed bacteria criteria, you
25 would have to perform a UAA to do that.

1 So it's cost avoidance to leave the use at
2 secondary contact and a -- and if you want to meet the
3 thrust of the 101(a)(2) goals, then raise the bacterial
4 criteria, but you are protecting yourself from the --
5 from the cost of a UAA.

6 MR. DOMINGUEZ: Okay. Thank you.

7 One other quick question.

8 You, during your oral testimony, had proposed
9 the concept of this Commission creating a task force to
10 look at methods as such challenging EPA's rebuttable
11 presumption.

12 If -- if that's already been challenged in the
13 court system and EPA won that challenge, what leads you
14 to believe that there is a path or something that EPA
15 would be amenable changing if there's already court
16 precedent set?

17 MR. NYLANDER: Mr. Chairman, that's a very
18 good question.

19 And, you know, in the -- in the 2000 court
20 case that upheld the rebuttable presumption in that
21 case, in a different state -- I don't know the facts and
22 circumstances regarding that court case, but what I have
23 hoped for is that a working group developing a sound
24 white paper and position on the rebuttable presumption
25 101(a)(2) uses being assigned to all unclassified

1 nonperennial waters, as it is now in
2 Section 20.6.4.98 -- that there would be hope that they
3 could see that that puts the state in a ridiculous
4 position, and that -- and that they might be able to
5 find a way to work with the state to refine the
6 standards in -- both in that section and in other
7 related sections dealing with these ephemeral waters,
8 these nonperennial waters. I mean, anything that's
9 nonperennial is in that ballpark.

10 So I don't think that I would give up hope
11 just because there's been a court case that -- and
12 especially depending on now the rule -- the waters of
13 the US rule that's been stayed now nationally by the 31
14 states that -- that litigated it -- it's hard to tell
15 how EPA's going to come out on the waters of the US rule
16 and whether they'll draw back in.

17 They may end up eliminating jurisdiction over
18 ephemeral streams and over some of these tributaries and
19 things.

20 So I'm hopeful that there will be a positive
21 outcome that -- that the rational minds and common sense
22 would say surely you don't expect us to swim in a wet
23 meadow or fish in a -- in a dry playa lake. And, you
24 know, I -- I can't think of any reason why not to try.

25 In my previous tenure with the Environmental

1 Improvement Agency, Environmental Improvement Division,
2 we fought those kind of battles every day with EPA, and
3 I think this one is worth exploring to see if you can
4 have a rational leg to stand on.

5 MR. DOMINGUEZ: Fair enough. I'm inspired by
6 your optimism of EPA's rationale.

7 With that, Commissioners, any follow-up
8 questions?

9 Commissioner Hutchinson.

10 MR. HUTCHINSON: Something that got changed in
11 my mind about the temporary standards.

12 The way that I was reading the way the
13 temporary standards are proposed, this would apply to
14 any activity, but I -- in questioning the Environment
15 Department and -- and other questions that came from the
16 Commission, it -- for me, it created the impression we
17 were only talking about permitted applicants going for
18 the temporary standards.

19 But in your testimony, you talked about
20 temporary standards being utilized by watershed
21 restoration groups, soil and water conservation
22 districts on stream restoration and erosion control.

23 Is it your impression that these are just
24 restricted to permitted applicants, or -- or is this the
25 whole world of activities out there?

1 MR. NYLANDER: Mr. Chairman, Commissioner
2 Hutchinson, it's my belief that it would apply to the
3 whole world, that the -- for example, the -- a watershed
4 group in San Juan County, maybe associated with the San
5 Juan Water Commission, might find that the selenium
6 criteria in that part of the state just couldn't be met,
7 and they got their heads together and said we ought to
8 petition for a temporary standard on the selenium
9 criteria and have some time to do some work in the
10 watershed, whether that's best management practices or
11 some kind of land use, some kind of control of sources.

12 But they might have a -- do a convincing study
13 that shows that they really could maybe improve the
14 meeting of that selenium criteria through some work, in
15 which case a temporary standard on the Department's
16 focal point of just applying a criteria would be
17 helpful.

18 They could -- they could get a time-limited
19 period when they wouldn't have to worry about meeting
20 the exact number for selenium today, they could get some
21 relaxed criteria that they could work with over time
22 to -- to basically try to improve the characteristics of
23 that watershed.

24 And so it's a valuable tool for anyone
25 interested in watershed restoration.

1 MR. HUTCHINSON: Thank you, Mr. Chairman.

2 MR. DOMINGUEZ: Commissioner Pattison.

3 MR. PATTISON: Thank you, Mr. Chairman.

4 Commissioner Tongate asked a question about
5 the effect on farmers and ranchers, and my -- I'd like
6 to be a little more specific, and that's playa lakes,
7 completely closed pieces, no chance of anybody swimming
8 in a lake or cattle would water and so forth.

9 What's your thoughts on the effect of all this
10 on those land owners?

11 MR. NYLANDER: Mr. Chairman, Commissioner
12 Pattison, right now playa lakes is enumerated in the
13 definition of waters of the state, and therefore it is
14 subject to the requirements of 20.6.4.98, if it is a
15 nonperennial unclassified waters of the state.

16 And so by being included in that category, the
17 designated use goal for those playa lakes would be
18 primary contact recreation and marginal warm water
19 fishery.

20 The cost implication for ranchers and farmers
21 that might have that on their -- playa lake on their
22 land is that if they -- I think -- I'm not certain if I
23 can really say what they all might be, but I think there
24 would be some business costs involved in -- in saying,
25 well, I can't meet those water quality goals on that

1 particular playa lake so I'd like to move that over into
2 an ephemeral category under the .97 section of the
3 standards, and in order to do that, I'd have to spend
4 money doing a UAA to show that those uses are not
5 attainable on my playa lake.

6 And I don't -- further than that, I really --
7 I really can't conjure up what the unanticipated costs
8 are, but I think it makes me nervous when you have a
9 rule that applies to almost everything in the state,
10 that -- that is listed in the definition of waters of
11 the state, and it says the goal for those things is to
12 be fishable and swimmable.

13 I just find that threatening, if you will.

14 MR. PATTISON: Thank you.

15 MR. DOMINGUEZ: If there's no more questions
16 from the Commission.

17 Seeing none, Mr. Hearing Officer, I'll turn it
18 back over to you.

19 MR. CHAVEZ: Thank you, Mr. Chairman.

20 At this point, I would like to look to public
21 for any cross-examination of this witness.

22 MS. GREENWALD: To the public?

23 MR. CHAVEZ: Yes, ma'am.

24 MS. BONIME: Not just comment but
25 cross-examination?

1 MR. CHAVEZ: Ma'am, it will be
2 cross-examination of the witness limited to only those
3 things brought up in testimony.

4 MS. BONIME: Right.

5 MR. CHAVEZ: It's not public comment.

6 MS. BONIME: Right.

7 MS. GREENWALD: Can I -- can I cross-examine?

8 MR. CHAVEZ: Yes.

9 Please have a seat, ma'am.

10 And just let me remind you it's limited to
11 only those matters that have come up. There could be an
12 objection from counsel, at which point I'll --

13 MS. GREENWALD: All right.

14 CROSS EXAMINATION

15 BY MS. GREENWALD:

16 Q. I want to describe the only ephemeral stream
17 that I am familiar with and to -- for you to apply what
18 you're asking for to that ephemeral stream. Okay?

19 For years I lived in Dixon, New Mexico, which
20 is downgradient from Ojo Sarco. So in Dixon the Embudo
21 River runs through there, but the Embudo doesn't run
22 through Ojo Sarco. Ojo Sarco can be interpreted to mean
23 dry spring. But the springs in Ojo Sarco run certainly
24 in the early part of the year, and people use it for
25 watering their animals and for sometimes gardening.

1 And then that stream sometimes dries up. But
2 what almost always dries up is the stream as it flows
3 through the canyon, toward the Embudo. So there's a
4 canyon between Ojo Sarco and Dixon. And that stream
5 goes over a waterfall into a pool.

6 And it's a famous -- famous -- it's a favorite
7 destination of people who want to swim and jump off the
8 rocks into the pool in the early part of the summer, and
9 then by the late part of the summer, the stream has
10 dried up.

11 So I'm assuming that would be an ephemeral
12 stream.

13 Would that be true?

14 A. Mr. Chairman, in answer, I think that would
15 probably be classified as an intermittent stream, if it
16 has water in it certain times of the year and -- you
17 know, an ephemeral stream is just one that runs in -- in
18 response to precipitation. So a flash flood in an
19 arroyo or something would be an ephemeral situation.

20 But a stream as you described, that has some
21 spring flow contribution in the early spring and -- and
22 has a permanent pool, that sounds to me like it might
23 better fit in the intermediate water category.

24 Q. Uh-huh. And that's not addressed by your
25 testimony, written or oral, the intermittent streams.

1 A. It is. If -- if that particular stream
2 segment is not already classified, then it, too, is one
3 of the 100,000 that are in the current standards under
4 20.4.6.98 as nonperennial unclassified waters.

5 And so it -- that stream presently has uses
6 and criteria assigned to protect that stream.

7 Q. Well, my concern is that since this spot is
8 only known to the local people, and --

9 A. And all of us that now know about it.

10 Q. Well, now -- now you do know about it. I
11 guess maybe that's not -- not good.

12 But -- but it -- I don't know how many places
13 there are like that in New Mexico that might be unknown
14 to -- or was -- or were unknown to the people here.

15 And I just wish that, you know, our criteria
16 would protect the children that swim in that pool in the
17 early part of the summer, in a place that --

18 MR. CHAVEZ: Ma'am, if I can stop you right
19 there.

20 MS. GREENWALD: -- very few people would -- I
21 think I'm about to stop at the end of this sentence.

22 MR. CHAVEZ: But, ma'am, I just -- what I want
23 to make sure is that you're asking a question of the
24 witness. This is not a time to make opinion --

25 MS. GREENWALD: Uh-huh.

1 MR. CHAVEZ: -- or make comment to the
2 Commission.

3 MS. GREENWALD: Okay.

4 Q. So do you agree with me that you would like to
5 see that stream and that swimming hole protected?

6 A. Yes.

7 Q. Uh-huh.

8 And how do you think that best can be done?

9 A. Well, currently the way the standards are
10 written, it is protected at least by the wording in the
11 standards for those kind of designated uses. So no --
12 it is protected at current time.

13 Now, if the persons that own that land and
14 that particular pool if --

15 Q. BLM.

16 A. BLM. If they ever wanted to, you know, come
17 in there and do something with it and -- and maybe alter
18 it, they might have to take notice of this water quality
19 standard and be careful not to -- not to do anything
20 detrimental to the protection of those uses.

21 Q. What concerns me is that, you know, who knows
22 about these uses, you know?

23 A. Right.

24 Q. Like -- yeah.

25 A. Well, thank you very much.

1 Q. Okay.

2 Thank you.

3 MR. CHAVEZ: Thank you, ma'am.

4 Is there anybody else in the audience that
5 would wish cross-examination -- cross-examine this
6 witness?

7 Seeing none, I would like to go back to
8 counsel for any redirect.

9 MS. MCCALEB: I have just a few questions,
10 please.

11 MR. CHAVEZ: Please proceed.

12 MS. MCCALEB: Thank you.

13 REDIRECT EXAMINATION

14 BY MS. MCCALEB:

15 Q. Mr. Nylander, during the Bureau's
16 cross-examination, Ms. Becker walked you through the new
17 EPA rule.

18 Do you recall that?

19 A. Yes.

20 Q. And she asked you several questions about
21 EPA's UAA requirement; is that correct?

22 A. Yes.

23 Q. And correct me if I'm wrong, but I believe you
24 testified that language in the rule states a UAA must be
25 performed to show fishable/swimmable uses are not

1 attainable before a non-101(a)(2) use can be designated;
2 is that correct?

3 A. That is correct.

4 Q. And you testified the same with regard to a
5 downgrade of the use, that a UAA is required; is that
6 correct?

7 A. That is correct.

8 Q. Mr. Nylander, have you seen anything in that
9 EPA rule that indicates that all preexisting secondary
10 contact designated uses must be upgraded if a UAA has
11 not previously been performed?

12 A. I do not see anything in the rule.

13 Q. And with respect to the nine segments that the
14 Bureau proposes to upgrade to primary contact, isn't it
15 true there wouldn't be any UAAs because at the time they
16 were designated UAAs were not required?

17 A. That is -- that is my opinion. Yes. That's
18 correct.

19 Q. And in fact, EPA previously approved the
20 secondary contact designations.

21 A. That is correct.

22 Q. So what is the applicable standard for
23 determining whether the nine segments should be
24 upgraded?

25 Is that found in 40 CFR Section 131.20?

1 A. I believe it is. Yes.

2 Q. And do you have that in front of you?

3 A. I don't.

4 Q. I can give you a copy.

5 A. In my mind, I think I have an idea what it
6 says, but --

7 Q. I'll just give you my copy.

8 And could you please read that rule for us?

9 A. "The State shall from time to time, but at
10 least once every three years, review applicable water
11 quality standards and, as appropriate, modify and adopt
12 standards. Any water body segment with water quality
13 standards that do not include the uses specified in
14 section 101(a) of the Clean Water Act shall be
15 re-examined to determine if any new information has
16 become available. If such new information indicates
17 that the uses specified in Clean Water Act
18 section 101(a)(2) are attainable, the State shall revise
19 its standards accordingly." (As read.)

20 Q. And your testimony before this Commission has
21 been that no such information has been -- has been
22 provided; is that correct?

23 A. I -- my testimony was that the information
24 that was provided was not very substantial.

25 Q. Thank you for that clarification.

1 Mr. Nylander, could you please turn to page 24
2 of your rebuttal testimony.

3 And at the bottom of that page, there was a
4 sentence that Ms. Becker questioned you about that
5 states "I disagree with the assertion that a UAA must
6 support the -- must support the existing designated use
7 of secondary contact."

8 Do you see that?

9 It's after the long indented quote.

10 A. Yes, I see that.

11 Q. And do you recall Ms. Becker questioning you
12 about that sentence?

13 A. Yes.

14 Q. Could you please clarify the context in which
15 you made that statement?

16 A. I believe I made that statement in the context
17 that -- I believe the testimony of Ms. Pintado, that the
18 UAA must -- must exist to -- to basically underpin a
19 designated use of secondary contact.

20 I -- I see no -- nothing in the rules or
21 requirements that says that has to be in the file
22 drawer, if it's an existing designated use. If you were
23 trying to assign a brand new use of secondary contact,
24 you may end up having to do a -- no. I'm sorry. I'll
25 take that back. Never mind.

1 I'm getting confused myself.

2 Q. Let me ask a follow-up question to clarify.

3 You're stating that you see a distinction
4 about when a UAA is required between instances where
5 you're designating a use in the first instance or
6 downgrading a use or you have a preexisting designated
7 use; is that correct?

8 A. Yes, that's correct.

9 Q. And of those three instances, when is a UAA
10 required?

11 A. A UAA is required if you're going to downgrade
12 a 101(a)(2) designated use to a lesser subcategory.

13 Q. And is a UAA also required by EPA if in the
14 first instance you are designating a non-101(a)(2) use?

15 A. No. I don't believe there -- it is.

16 Q. I'd like to move to some questioning by
17 Commissioner Hutchinson.

18 He asked you about the public hearing
19 requirement for the Department's temporary standards
20 proposal.

21 Do you recall that questioning?

22 A. Yes, I do.

23 Q. Can you please confirm for the Commission what
24 the EPA rule says about temporary standards with respect
25 to whether they're considered a water quality standard?

1 A. Yes. The EPA rule considers a temporary
2 standard a water quality standard, and as such, if a
3 petitioner here in New Mexico were to request a
4 temporary standard in -- that would have to go before
5 the Commission as an amendment or change to the water
6 quality standards, the process, and so there would have
7 to be a public hearing on that kind of activity.

8 Q. Thank you.

9 Commissioner Hutchinson also asked you a
10 question about whether there are any costs associated
11 with the designation of an ephemeral water as an
12 intermittent water in Section 98.

13 Do you recall that?

14 A. Yes, I do.

15 Q. Does the fact that 30 UAAs have been performed
16 since the last triennial review in order to move
17 segments from a Section 98 classification to a
18 Section 97 classification as an ephemeral stream give
19 you any thoughts about costs associated with the
20 original designation as an intermittent water?

21 A. Yes. I would -- I would think that the 30
22 segments that the parties that had a desire to move
23 those out of 98 and into 97 -- that they had to have
24 some business costs motivation to go to the effort, to
25 spend money on a UAA and show that they qualify for the

1 Section 97 listing, which has a little bit lower set
2 of -- less -- less stringent set of designated uses
3 and -- and criteria.

4 Q. Moving on to a question by Chairman Dominguez,
5 he asked you about the case upholding EPA's rebuttable
6 presumption.

7 Do you recall that question?

8 A. Yes, I do.

9 Q. Mr. Nylander, do you know whether that case is
10 binding in New Mexico?

11 A. I do not.

12 Q. And back to another question from Commissioner
13 Hutchinson, he asked whether the whole world could use
14 the temporary standard provision or just permittees.

15 Do you recall that line of questioning?

16 A. Yes, I do.

17 Q. Could I please refer you to the Department's
18 second amended petition, their most recent proposal for
19 the temporary standards provision?

20 A. Um-hum.

21 Q. And could you read the first line under
22 Section F.(1) there, please.

23 A. Section F.(1) says "Any person may petition
24 the commission to adopt a temporary standard applicable
25 to all or part of a surface water of the state as

1 provided for in this section and applicable Subsections
2 in 40 CFR Part 131.14."

3 Q. And in addition to that, there was the
4 question about the use of this provision to implement
5 restoration activities.

6 And restoration activities are addressed in
7 Section F.(1)(a).

8 Do you see that there?

9 A. Yes, I do.

10 Q. And do you anticipate it would be only
11 permittees doing restoration activities, or would it
12 more likely be agencies or watershed groups and other
13 such organizations?

14 A. I believe it would be -- it would be all of
15 the above. I think that watershed groups and agencies
16 would be the likely group to want to do restoration, and
17 a permittee on a case-by-case basis might, but I think
18 it's more the land management agencies and the -- and
19 the watershed-based groups and the environmental groups
20 that might want to collectively do a watershed
21 restoration project.

22 Q. And could you please turn to the new EPA rule
23 at page 51037?

24 A. Okay.

25 Q. On the far right-hand column, the last

1 paragraph, about three-quarters of the way through that
2 paragraph, there's a sentence beginning "EPA added this
3 new factor."

4 Do you see that?

5 A. Yes, I do.

6 Q. Could you read that and provide -- could you
7 just read that sentence, please?

8 A. "EPA added this new factor for when states and
9 authorized tribes wish to obtain a water quality
10 standards variance because they expect a time-limited
11 exceedance of a criterion when removing a dam or during
12 significant wetlands, lake, or stream
13 reconfiguration/restoration efforts."

14 Q. Thank you.

15 And so does that provide support for the
16 conclusion that the temporary standard could be used
17 globally rather than just by permittees?

18 A. Yes, absolutely.

19 Q. Mr. Nylander, several Commissioners have
20 questioned you about your testimony concerning
21 increasing the bacteria criteria to primary contact
22 levels rather than upgrading a secondary contact use.

23 Do you recall those questions?

24 A. Yes, I do.

25 Q. Could you please provide the cite to the Water

1 Quality Standards Handbook that supports your testimony?

2 A. Yes. The Water Quality Standards Handbook
3 Chapter 2, Designation of Uses, it's 2.1.3, Recreation,
4 and I discussed in my testimony today the use of Option
5 2 to assign the secondary contact use, but also upgrade
6 the bacterial criteria sufficient to support primary
7 contact recreation.

8 My testimony was that that would be protective
9 of the Clean Water Act Section 101(a)(2) goals.

10 Furthermore, I alluded to the fact that in the
11 EPA's Record of Decision on the 2005 triennial review,
12 that EPA stated that they recognize another option, the
13 state can designate secondary contact and establish
14 criteria that protect for primary contact.

15 And so in that Record of Decision, the text
16 goes on, but they do acknowledge that that is a way to
17 assign a subcategory of the recreation use, which is
18 secondary contact, but still meet the protective goals
19 of 101(a)(2) fishable/swimmable goals by assigning the
20 more stringent primary contact bacteria limit.

21 MS. MCCALEB: Thank you.

22 I have no further questions.

23 MR. CHAVEZ: Thank you, Ms. McCaleb.

24 At this time, I would like to bring forward
25 Amigos Bravos, presentation of their case.

1 (Discussion off the record.)

2 MR. CHAVEZ: Mr. Schlenker-Goodrich, is it my
3 understanding that rebuttal testimony will be included
4 in this direct?

5 MR. SCHLENKER-GOODRICH: Yes.

6 MR. CHAVEZ: Thank you.

7 MR. SCHLENKER-GOODRICH: I'll go through that
8 in my intro.

9 MR. CHAVEZ: Thank you.

10 Please proceed.

11 MR. SCHLENKER-GOODRICH: Good afternoon,
12 Mr. Chairman, Commissioners, Mr. Hearing Officer.

13 My name is Erik Schlenker-Goodrich. I'm with
14 Western Environmental Law Center, and I represent Amigos
15 Bravos.

16 I want to emphasize at the outset that our
17 expert, Dr. Deke Gundersen, is only available today. In
18 accord with that time limitation, what we are going to
19 do, and after conferring with other parties, we are
20 going to consolidate our direct and rebuttal testimony
21 specifically on the issue of aluminum standards and
22 Amigos Bravos' proposal to change the aluminum
23 standards, and what we are going to do is then segment
24 out the other Amigos Bravos issues to address later on
25 in this hearing.

1 So with the blessing of the Hearing Officer,
2 I'd like to proceed in that format.

3 MR. CHAVEZ: Please proceed.

4 MR. SCHLENKER-GOODRICH: Also, I would like to
5 note that our two witnesses on this are Ms. Rachel Conn
6 and Dr. Deke Gundersen. My hope is to present both of
7 their consolidated direct and rebuttal testimony and
8 then have both sit as a panel for cross-examination.

9 Would that be appropriate, Mr. Hearing
10 Officer?

11 MR. CHAVEZ: Yes, sir.

12 MR. SCHLENKER-GOODRICH: Thank you.

13 Let me begin with you, Ms. Conn.

14 THE REPORTER: One second.

15 RACHEL CONN and DEKE GUNDERSEN
16 having been first duly sworn or affirmed, were
17 examined and testified in direct and rebuttal as
18 follows:

19 DIRECT EXAMINATION OF RACHEL CONN

20 BY MR. SCHLENKER-GOODRICH:

21 Q. Ms. Conn, could you please state your name for
22 the record.

23 A. My name is Rachel Conn.

24 And good afternoon, Mr. Hearing Officer and
25 Mr. Chair and members of the Commission.

1 Thank you for the opportunity to testify
2 today.

3 Q. Ms. Conn, could you please briefly state your
4 qualifications for the record.

5 A. I am the projects director and interim
6 executive director for Amigos Bravos.

7 Amigos Bravos is a nonprofit river
8 conservation organization dedicated to protecting and
9 restoring the waters of New Mexico.

10 I have a BA in environmental biology and have
11 worked for the past 17 years in the environmental field
12 with an intense focus on -- intensive focus on water
13 quality policy and protections.

14 I began my professional career working for the
15 Massachusetts Department of Environmental Protection in
16 data assessment, and I have also worked for a nonprofit
17 in Colorado assessing and addressing water quality
18 problems associated with gold mining.

19 For the past 15 years, I have worked for
20 Amigos Bravos directly on New Mexico water quality
21 policy and protection issues. As part of this work, I
22 help New Mexico communities learn about and then use the
23 Clean Water Act to protect and clean up their rivers,
24 streams and other waters by giving trainings around the
25 state on water quality standards, total maximum daily

1 loads, national pollutant elimination system permits and
2 other Clean Water Act topics.

3 I've also served on the advisory board of the
4 clean -- national Clean Water Network for the past nine
5 years, where I assist on guiding national Clean Water
6 Act advocacy.

7 I have provided technical testimony related to
8 the Clean Water Act requirements before this Commission
9 on multiple occasions, including during the last two
10 triennial reviews, as well as rulemaking processes
11 designating and promulgating rules governing outstanding
12 national resource waters.

13 Q. Ms. Conn, Amigos Bravos has submitted proposed
14 changes and supported prefiled written testimony
15 regarding New Mexico's aluminum criteria; is that
16 correct?

17 A. Yes, it is.

18 Q. Can you please summarize what Amigos Bravos'
19 proposed changes are?

20 A. Amigos Bravos proposes to revert back to the
21 EPA 304(a) recommended criteria for aluminum. These are
22 750 micrograms per liter for acute and 87 micrograms per
23 liter for chronic.

24 Q. Why are you proposing these proposed -- why
25 are you proposing these changes?

1 A. For a number of reasons.

2 One, as Dr. Gundersen will outline in his
3 testimony, New Mexico's current hardness-based criteria
4 is based on flawed science and incomplete data.

5 Two, the current hardness-based criteria is
6 not protective of aquatic life.

7 Three, EPA has expressed new concerns about
8 the hardness-based criteria during their review of West
9 Virginia's preliminary proposal.

10 And four, we are concerned that the
11 hardness-based criteria doesn't take into -- other
12 parameters into account. Notably, it does not take
13 temperature into account, which is problematic here in
14 New Mexico given temperature is one of the number --
15 largest causes of impairment in the state.

16 Q. The hardness-based aluminum criteria were
17 approved by EPA after the last triennial review,
18 correct?

19 A. Yes.

20 Q. Why is it that Amigos Bravos is now proposing
21 to revert back to the pre-2009 criteria?

22 A. There are a number of reasons.

23 The main reason is that since the last
24 triennial review we have received a lot of concerns from
25 our membership. This concern was expressed to us

1 primarily during the process for removing the aluminum
2 TMDL on the Red River, which came as a direct result of
3 downgrading, weakening the aluminum standard.

4 It was during this time that a number of our
5 members and partners expressed concern about the new
6 hardness-based criteria and its negative impacts on
7 aquatic life.

8 Another reason that we are proposing this now
9 instead of raising concerns during the last triennial
10 review is that during the previous triennial review we
11 did not have the resources or capacity to adequately
12 address the issue. We have since been able to raise a
13 limited amount of funding to do so, and so we are -- we
14 are doing so now.

15 Q. You alluded to some concerns regarding the
16 West Virginia proposal and that to a degree was a
17 catalyst for Amigos Bravos' proposal today.

18 What concerns did EPA express regarding that
19 proposal?

20 And I'm referring directly to Dr. Gensemer's
21 exhibit for Chevron, this is Exhibit 8.

22 A. Yes. This was a January 30th, 2014, letter
23 from EPA to West Virginia Department of Environmental
24 Protection.

25 And in this letter, EPA -- and as

1 Mr. Schlenker-Goodrich pointed out, this is CMI's
2 Exhibit 8, which is attached to Dr. Gensemer's rebuttal
3 testimony.

4 So in this letter, EPA expresses concerns that
5 West Virginia's hardness proposal, which was based on
6 the same GEI study, the same study which we based ours
7 here in New Mexico, our current hardness based
8 criteria -- it's the same as what was being proposed in
9 West Virginia.

10 So EPA expressed concerns that this proposal
11 did not incorporate the latest studies on aluminum
12 toxicity to aquatic life.

13 In addition, the letter expresses concerns by
14 the EPA and the US Fish and Wildlife Service regarding
15 aluminum toxicity to mussel species. Specifically they
16 were concerned that the hardness-based criteria would
17 not be protective of mussel species.

18 Q. Do you believe that EPA's concerns expressed
19 with regard to West Virginia's proposal are relevant to
20 New Mexico?

21 A. Yes. I believe they're very much so relevant
22 here in New Mexico, because we have numerous freshwater
23 mussel species here in the state. Specifically, there
24 are 23 species of mussels that are currently found in
25 New Mexico waters. We've provided those species in

1 Supplemental Exhibit L.

2 Q. In the course of reviewing West Virginia's
3 aluminum proposal, did you find other information that
4 is relevant to concerns regarding New Mexico's
5 hardness-based criteria?

6 A. Yes. I found an opinion report regarding West
7 Virginia's hardness-based aluminum proposal prepared by
8 Dr. Carys L. Mitchelmore, an aquatic toxicologist from
9 the University of Maryland. This opinion report mirrors
10 and reinforces the concerns expressed by our expert,
11 Dr. Gundersen.

12 Specifically, it states that there is a lack
13 of peer-reviewed studies to support the hardness based
14 criteria. In addition, it expresses concerns that
15 studies used to justify the hardness-based standard were
16 not designed specifically to look at the relationship
17 between aluminum toxicity and hardness. It also states
18 that aluminum toxicity depends on many factors other
19 than water hardness.

20 Bottom line, this opinion report is a detailed
21 accounting of why the hardness-based criteria are not
22 defensible.

23 Q. Fundamentally to ensure adequate protection
24 for aquatic species in New Mexico, Amigos Bravos
25 contends that reversion back to the EPA-recommended

1 304(a) aluminum criteria is based on sound scientific
2 evidence and would remedy the substantial
3 underprotection for aquatic species provided by the
4 current hardness-based aluminum criteria; is that
5 correct?

6 A. Yes. It is still the case that the only
7 nationally recommended criteria for aluminum is the
8 304(a) criteria, which Amigos Bravos is proposing that
9 we revert back to here in New Mexico.

10 Q. And this position is supported by not only
11 your testimony, but the prefiled written testimony of
12 Dr. Deke Gundersen and the oral testimony of
13 Dr. Gundersen to follow; is that correct?

14 A. That is correct.

15 Q. Thank you, Ms. Conn.

16 DIRECT EXAMINATION OF DEKE GUNDERSEN
17 BY MR. SCHLENKER-GOODRICH:

18 Q. Good afternoon, Dr. Gundersen.

19 A. Hello.

20 Q. Could you please state your name for the
21 record?

22 A. Yes. Deke Gundersen, D-E-K-E, and it's not
23 short for anything. People ask.

24 Q. You are here to testify in support of Amigos
25 Bravos' proposal regarding New Mexico's hardness-based

1 aluminum surface -- aluminum surface water criteria and
2 the change back to the pre-2009 EPA-approved 304(a)
3 criteria; is that correct?

4 A. Correct.

5 Q. Can you concisely summarize your
6 qualifications on this issue?

7 A. Well, primarily my work with aluminum has to
8 do with my PhD dissertation. I spent three years
9 looking at the effects of hardness, dissolved organic
10 carbon in pH, how they influenced aluminum toxicity in
11 rainbow trout at a weakly -- weakly alkaline pH. Now
12 that work we generated to publications from that work.

13 In addition, I have a pretty diverse
14 background in environmental toxicology. Some of the
15 current projects that I'm working on, we're looking at
16 metals and organic contaminants in white sturgeon in the
17 San Francisco Bay delta. I'm also looking at organic
18 chlorine pesticides in marine mammals in the Pacific
19 Northwest Coast.

20 Just recently got done publishing a paper that
21 looked at mercury and fish in Antarctica. And then even
22 further back, I've dealt with looking at partially
23 combusted crude oil as a result of the Gulf War when
24 they lit all the wells on fire, we looked at the
25 toxicity of partially combusted oil on marine life.

1 MS. GREENWALD: Excuse me.

2 Could you move that microphone a little closer
3 to you --

4 MR. GUNDERSEN: Closer? Okay.

5 MS. GREENWALD: -- or speak a little slower?
6 Thank you so much.

7 MR. GUNDERSEN: Okay. No worries.

8 Anyway, I've done a lot of different things.

9 I also serve on some water quality advisory
10 committees in State of Oregon that looks at surface
11 water quality, as well. And I belong to a variety of
12 professional societies, including Society of Toxicology
13 and Society of Environmental Toxicology and Chemistry,
14 just to name a few.

15 Another project I'm currently working on is
16 looking at the use of fungi to break down polycyclic aromatic
17 hydrocarbons in street sweepings that are collected in
18 my local area.

19 So I've kind of done a little of everything,
20 including spent a fair amount of time focusing on
21 looking at the effects of aluminum and what role
22 hardness plays in that.

23 Q. And your qualifications are more fully set
24 forth in Section I of your written testimony; is that
25 correct?

1 A. Correct.

2 MS. BECKER: And for a moment, let me turn
3 back to Ms. Conn.

4 Ms. Conn, your qualifications are also more
5 fully set forth in your prefiled written direct
6 testimony; is that correct?

7 MS. CONN: Correct.

8 MR. SCHLENKER-GOODRICH: Thank you.

9 Q. Dr. Gundersen, regarding Amigos Bravos'
10 proposal, do you support that proposal?

11 A. I do.

12 Q. As an initial matter, why are protective
13 aluminum criteria important? What is the problem with
14 aluminum in surface waters?

15 A. Well, aluminum is toxic to aquatic life,
16 particularly organisms -- particularly structures on
17 these organisms that have to do with respiration and
18 ional regulation. And in addition to this, the toxicity
19 of aluminum is very complex, because there's more than
20 one species that elicits toxicity, and that's heavily
21 influenced by pH.

22 To add on top of this tox -- or to add to this
23 complexity, then we have various water quality
24 parameters that also influences aluminum's toxicity to
25 aquatic life.

1 So it's a pretty complicated picture.

2 Q. Can you explain the basic difference between
3 EPA's 304(a) recommended aluminum criteria, which Amigos
4 Bravos has proposed to revert back to, and New Mexico's
5 current hardness-based aluminum criteria?

6 A. Well, the big difference is that the current
7 New Mexico hardness-based criteria would allow for more
8 aluminum into local surface waters versus the former EPA
9 criteria. So just based on comparing the two, the EPA
10 criteria would be more protective just because it allows
11 for lower levels of aluminum in surface waters.

12 Q. Would you characterize that difference as
13 the -- that the current hardness-based aluminum criteria
14 is substantially less protective than the 304(a)
15 recommended criteria?

16 A. I would say it's substantially different in
17 just looking at the relative difference in the two
18 numbers.

19 Q. What is the basic state of the science
20 regarding aluminum toxicity? And what about -- well,
21 let me leave it there. What about -- what is the basic
22 state of the science regarding aluminum toxicity and
23 specifically the state of the science regarding the
24 interplay between hardness and aluminum toxicity?

25 A. So if you look at all the metals out there

1 that have been studied, aluminum is probably one of
2 those metals that has the least amount of research
3 backing it.

4 If you look at lead, for example, so some
5 states have adopted hardness-based criteria for lead.
6 And if you look at the number of studies that were
7 utilized to derive those equations, vast number, huge
8 more number of studies that are used to derive those
9 criteria.

10 So one of the problems is there's just not a
11 lot of research relative to some of these other metals
12 where we've derived these hardness-based equations.

13 In addition to that, there's not been much
14 work with aluminum toxicity at the sort of alkaline pH
15 range, and particularly there's not been much work done
16 looking at the effects of hardness at this pH range.
17 There's really only a few studies that have looked at
18 this particular pH range, although the current criteria
19 is all the way up to pH 9.0, which is well into the
20 alkaline pH range.

21 Q. EPA guidelines explain that a change in water
22 criteria -- water quality criteria should be based on,
23 quote, unquote, sound scientific evidence and that
24 criteria were, quote, unquote, substantially over- or
25 underprotective; is that correct?

1 A. Correct.

2 Q. In promulgating New Mexico's hardness-based
3 criteria, that criteria was based on a study prepared by
4 GEI; is that correct?

5 A. Correct.

6 Q. Was the GEI study, in your expert opinion, the
7 requisite sound scientific evidence sufficient to change
8 the aluminum criteria?

9 A. So I don't know. If you look at the EPA
10 document, it's pretty strong language that says you got
11 to provide sound evidence that it's overprotective. And
12 if you look at those -- at least the reports that I've
13 looked at done by GEI, they mention a couple of studies
14 that were utilized for the EPA criteria -- one I believe
15 was striped bass, the other was brook trout -- and that
16 those studies were problematic.

17 And I'm not really arguing that fact. But
18 they didn't provide -- so there's supposedly -- one of
19 the -- the rationale for adopting this new equation is
20 all these new studies. Right? So it's time to update
21 this thing.

22 So if there's all these new studies, I didn't
23 at least see in any of the reports where they said,
24 well, here's a few studies here that demonstrates that
25 the existing criteria are well overprotective. Because,

1 for example, I could provide studies right now that
2 would sort of show that the EPA criteria are just barely
3 protective, if you look at particular species like
4 mussels, for example.

5 Q. In evaluating the GEI study, you provide, on
6 page 5 of your written direct testimony, Table 1, which
7 shows that existing EPA aluminum criteria, GEI's
8 equations for New Mexico, Colorado and West Virginia,
9 and equations used by the Arid West Water Quality
10 Research Project.

11 Can you explain the relevance of this table?

12 A. So my --

13 MR. SCHLENKER-GOODRICH: And again, that is --
14 just briefly, that is page 5, Table 1, of Dr. Deke
15 Gundersen's written direct testimony.

16 MR. GUNDERSEN: So I guess my point here is
17 you have all these hardness-based equations and each one
18 of them are slightly different in some way, which sort
19 of, to me, reflects there's a lack of clear
20 understanding of what studies to use, what species to
21 use to derive these equations.

22 In addition, which I think Dr. Gensemer even
23 pointed out, some state agencies, like Colorado, looked
24 at the original equation and changed them in such a way
25 that they would actually be more protective than the way

1 they were originally submitted. And then, of course,
2 you have West Virginia, where that hardness-based
3 equation ultimately was not utilized.

4 And so I guess my point there is to say look
5 at all this variability in coming up with these
6 equations, which one's right, which one's wrong, why are
7 they being changed, why are some state agencies making
8 them more protective.

9 Q. (BY MR. SCHLENKER-GOODRICH) On page 6 of your
10 direct written testimony, you address GEI's calculations
11 specifically for New Mexico, which served, again, as the
12 basis for New Mexico's current hardness-based aluminum
13 criteria, and you identified concerns that GEI omitted
14 two studies pertinent to ensuring that aluminum criteria
15 are protective of important recreational aquatic species
16 like rainbow trout, correct?

17 A. Correct.

18 Q. In your expert view, what was the bottom line
19 impact of these omissions on New Mexico's hardness-based
20 criteria? Did it effectively weaken the level of
21 protection for aquatics, in particular recreationally
22 important species like rainbow trout?

23 A. I guess my answer to that, I can refer to
24 Dr. Gensemer's rebuttal to my testimony where he stated
25 that both rainbow trout studies, one by Thomas, et al.,

1 there were some flaws. He pointed out that calcium was
2 measured and not hardness, and it was also difficult to
3 determine the duration of that particular study.

4 The other study happens to be my work, and --
5 and one of the limitations he pointed out to that study
6 is that the range of LC 50s -- that's a concentration
7 that will kill half of a fish that you expose to
8 aluminum. Anyway, the range of LC 50s was too narrow,
9 which is mentioned in the EPA guidelines.

10 Which I don't discount those things that he
11 pointed out. I guess my question would be -- is why
12 were these studies deemed acceptable in the Arid West
13 study that Dr. Gensemer was a part of?

14 I mean, that was, I think, developed in 2006.
15 So three years later all of a sudden we decide to do
16 studies now are not deemed acceptable. I'm not exactly
17 sure what changed over that period of time.

18 Dr. Gensemer went on to say that, well, let's
19 use the three lowest LC 50s from my work and plug that
20 into the equation, see what we get for a pooled slope.
21 A pooled slope is one of those constants that's in the
22 hardness-based equation.

23 And correctly he came up with a number of
24 1.2189. And --

25 Q. Can I stop you there, Dr. Gundersen?

1 In terms of these recalculations that
2 Dr. Gensemer did, you are referring to Dr. Gensemer's
3 rebuttal testimony on pages 12 and 13; is that correct?

4 A. Correct.

5 Q. Thank you. Sorry.

6 You may continue.

7 A. Oh, no worries.

8 So anyway, the original pooled slope was
9 1.37 -- I'm rounding up a bit -- and he came up, he
10 said, well, if you used my data, the rainbow trout,
11 which is a recreational sensitive species -- if you use
12 that data, you come up with a slope of about 1.22.

13 And his argument was, well, those aren't
14 really very different from one another, which
15 number-wise, I guess, I would agree with him on that.

16 If you plug those -- if you utilize those two
17 different numbers in the hardness-based equation, and
18 let's say we do that for a hardness of 100 milligrams
19 per liter, you get distinctly different values.

20 If you use the slope that Dr. Gensemer comes
21 up with, the 1.2, which is based on rainbow trout, you
22 actually get substantially more protective aluminum
23 criteria. In fact, it reduces the amount of aluminum
24 allowed in surface waters by half if you use that new
25 slope, at least based on my calculations.

1 So even though the two slopes aren't
2 significantly different or there's not a lot of
3 difference numerically when you plug them into this type
4 of equation, it can make a substantial difference, is my
5 point here.

6 Q. So you're not necessarily challenging
7 Dr. Gensemer's calculations on pages 12 and 13, but
8 Dr. Gensemer does characterize the difference in the
9 pooled slope as only a difference of a -- and reading
10 from page 13 of Dr. Gensemer's rebuttal testimony, as a
11 minor degree change, effectively, and you fundamentally
12 disagree with that, correct?

13 A. Correct.

14 Q. You also express concerns on pages 7 and 8 of
15 your written direct testimony that GEI not only omitted
16 key studies, but also included certain studies that were
17 riddled with, in your view, problems, including
18 incorrect calculations for hardness, failure to make
19 necessary measurements, failure to report key test
20 concentrations and failures to validate analysis,
21 correct?

22 A. Correct.

23 Q. Could you provide an example?

24 A. Yes. So there is -- there's several studies,
25 but probably one that comes to mind -- so again, keep in

1 mind that GEI said, okay, it's time to update the
2 criteria, we got a lot of new studies, some really good
3 information, and we need to look at these things. So
4 GEI looked at the new studies, and they also critically
5 evaluated the original ones that were used for the
6 original EPA criteria, and they were fairly critical of
7 those studies.

8 There's one paper by Kimball that, first of
9 all, if you look at the paper, it's not peer reviewed,
10 and to be quite honest with you, I'm not even sure what
11 it is, like if it's a master's thesis, an undergraduate
12 student did it. It's really just not clear to me. It's
13 very poor quality, in my opinion.

14 But aside from that, one of the biggest
15 problems I have is the acute LC 50 that they came up
16 with for the daphnia that was used in part of the
17 calculation for the criteria. At the low concentration,
18 the reported pH was around 8. At the high aluminum
19 concentration, the pH was reported at 5. That's a
20 difference of three pH units.

21 And as you probably know, pH is a logarithmic
22 scale. And as we already stated, aluminum solubility is
23 affected by pH. So what was going on in the low
24 aluminum chamber had to be a lot different than what was
25 going on in the high aluminum chamber.

1 I see this as a really gross difference in
2 pHes, and I -- I don't think the study should be
3 allowed.

4 And so again, it just sort of questions the
5 validity of coming up with these equations. You're
6 throwing out some studies because there wasn't a broad
7 range of pH, but you're keeping others -- or broad range
8 of LC 50s, but you're keeping others which have a gross
9 change in pHes. So --

10 Q. Could you provide a sort of plain language
11 understanding of what LC 50 means?

12 A. Yeah. So that's just a -- it translates to a
13 lethal concentration that will kill 50 percent of your
14 test organisms in the laboratory when you're looking
15 at -- when you're exposing them to aluminum. How much
16 aluminum would it take to kill half of that population,
17 sort of the standardized measurement used in toxicology.

18 Q. Overall what was the consequence of including
19 these -- let me retract that.

20 The first thing, with regard to the Kimball
21 study, you address it in your written direct testimony
22 on pages 8 and 9?

23 A. Correct.

24 Q. And also in your written rebuttal testimony on
25 pages 3 to 6?

1 A. Correct.

2 Q. Overall with these problematic studies, not
3 just the Kimball study, what -- what was the consequence
4 of including that? Did they result in more or less
5 protective hardness-based aluminum criteria for New
6 Mexico?

7 A. Well, my honest scientific answer to that is I
8 don't know. And the reason I say that, to me, it's more
9 about the validity of these equations. I don't know if
10 it's valid or not based on these studies. You've got
11 some studies that shouldn't be allowed, you got others
12 that are.

13 And so it just makes me question the validity
14 of the overall process of -- of coming up with these
15 equations, again noting the fact that GEI stated there's
16 a lot of new data out there that we can use to write
17 these equations.

18 Again my question is why are you using studies
19 like these?

20 Q. On pages 8 and 9 of your written direct
21 testimony, you explain that aluminum has distinct
22 chronic and acute toxicity impacts; is that correct?

23 A. Correct.

24 Q. Can you -- just as also -- statement LC 50,
25 can you describe what is the difference between a

1 chronic and an acute toxicity impact?

2 A. Well, acute means -- usually these are
3 short-term toxicity tests, typically they can be 96
4 hours, where we're looking -- probably the most notable
5 thing we look at in this case is mortality. It's easy
6 to measure.

7 Chronic studies typically are up to around 30
8 days, and we look at things like does it affect growth,
9 does it affect reproductive success, things like that.

10 Q. And so given these distinct toxicity impacts
11 that you explain in your written direct testimony on
12 pages 8 and 9, and specifically at near neutral pH,
13 there's greater growth inhibition but less deaths than
14 at weakly alkaline pH? Can you discuss this?

15 A. Well, that's just what we found in the study
16 that I did. So at near neutral pH, we didn't see much
17 mortality, but we definitely saw inhibition of growth in
18 rainbow trout. At more alkaline or weakly alkaline pH
19 at around a pH of 8, we did see mortality in that case.

20 And the two differences between those pHes
21 that -- is at near neutral pH, most of the aluminum is
22 insoluble. At weakly alkaline pH, a fraction of that
23 aluminum is soluble, and then another part of that also
24 is insoluble.

25 So that's the difference that we see between

1 those two pHes, and we attributed the effects of
2 mortality that we saw at weakly alkaline pH due to the
3 presence of soluble forms of aluminum.

4 Q. In your written direct testimony on pages 11
5 and 12, you discuss hardness.

6 And just as background, when you're measuring
7 hardness, you're looking at both calcium and magnesium;
8 is that correct?

9 A. Primarily, yes.

10 Q. In your testimony, you explain that it is --
11 in your testimony, you explain that it is calcium, not
12 magnesium that mitigates aluminum toxicity; is that
13 correct?

14 A. Correct.

15 Q. But again, the hardness-based criteria
16 measures both calcium and magnesium.

17 A. Correct, primarily. Yes.

18 Q. So as a hypothetical, you could have two
19 distinct water segments, one with a hardness level of
20 100 milligrams per liter, but with a far higher ratio of
21 calcium, that is protective of aquatics, and you could
22 have another water body segment that has the same
23 concentration of hardness, a hardness level of
24 100 milligrams per liter, but with a far lower ratio of
25 calcium, and that would be far less protective, because

1 there will be far more aluminum toxicity; is that
2 correct?

3 A. Well, it's just a difference in the amount of
4 calcium in the two. So one would be more protective
5 than the other. This has been shown in studies looking
6 at other metals. This has not been shown in studies
7 with aluminum yet, at least to my knowledge.

8 But it has been shown, like I say, looking at
9 other metals where they expose organisms to -- I believe
10 it was copper, is the one I'm thinking of, at the same
11 hardness, but they altered the amount of calcium that
12 made up that hardness, and they found the higher calcium
13 levels offered more protection than the same hardness
14 level that had less calcium.

15 Again, also sort of pointing out how
16 complicated all of this really is.

17 Q. Beyond hardness, there are other parameters
18 like pH that may be more important --

19 A. Correct.

20 Q. -- in assessing aluminum toxicity?

21 A. Correct.

22 Q. On page 10 of your testimony, of your written
23 direct testimony, you explain that there is a severe
24 lack of scientifically defensible evidence regarding the
25 effects of alkaline pH in the 8.0 to 9.0 range on

1 aluminum toxicity.

2 A. Correct, yeah. Like I said, there's not been
3 a lot of work in the alkaline pH range, and particularly
4 looking at the effects of hardness on aluminum toxicity
5 at the alkaline pH range. In fact, my work suggests
6 that hardness is not even protective at all at the
7 alkaline pH range.

8 Q. And these pH values are seen in New Mexico?

9 A. Yes.

10 Q. In fact, common?

11 A. Yeah.

12 Q. What happens to aluminum toxicity at higher
13 temperatures?

14 A. So some studies indicate as temperature goes
15 up so does aluminum toxicity.

16 Q. Therefore, could aluminum toxicity under the
17 current hardness-based standard, which does not take --
18 well, does the current hardness-based criteria take
19 temperature into account?

20 A. No.

21 Q. Therefore, could aluminum toxicity under the
22 current standard pose a problem in temperature-impaired
23 waters?

24 A. Yeah. And I'd be particularly worried about
25 species that are sensitive to temperature. So like

1 rainbow trout, for example, they get stressed out when
2 they're exposed to high temperatures. Then on top of
3 that, with increased temperature, aluminum -- some
4 evidence suggests that aluminum becomes more toxic, as
5 well.

6 So you have sort of two things working against
7 certain sensitive species like rainbow trout.

8 Q. This is sort of a classic example of a
9 cumulative impact.

10 A. So to speak, yes.

11 Q. And New Mexico's one of only two states that
12 use hardness-based criteria, correct?

13 A. To my knowledge, yes.

14 Q. And Colorado is the only other state?

15 A. As far as I know, yeah.

16 Q. And you alluded to this before in your
17 testimony, but the Colorado standard is, in fact, a
18 little bit more robust than New Mexico's; is that
19 accurate?

20 A. They have altered, I believe, the chronic
21 equation to make it more protective.

22 Q. So would it be accurate to characterize New
23 Mexico's aluminum criteria as the weakest in United
24 States?

25 A. I would say it allows for more aluminum in

1 surface waters. Yes.

2 Q. On page 4 of your written direct testimony,
3 you note that West Virginia had proposed to use
4 hardness-based aluminum criteria, correct?

5 A. Correct.

6 Q. In that testimony, you state that EPA rejected
7 West Virginia's proposal for hardness-based aluminum
8 criteria.

9 But to clarify, EPA did not reach a final
10 decision regarding that proposal, correct?

11 A. Correct.

12 Q. Is it because it was withdrawn from
13 consideration by West Virginia?

14 A. That's my understanding.

15 Q. EPA, however, did express serious concerns
16 regarding certain aquatic species with West Virginia's
17 proposal; is that correct?

18 A. Correct.

19 Q. And EPA's concerns are identified in
20 Dr. Gensemer's rebuttal exhibit, Number 8; is that
21 correct?

22 A. Correct.

23 Q. What were those concerns?

24 A. There were -- there were concerns over certain
25 sensitive species, particularly freshwater mussels, and

1 in particular, they were very sensitive to aluminum, and
2 they also mentioned that pH was critically important at
3 looking at the text -- the toxicity of aluminum to
4 freshwater mussels. And that hardness had a very minor
5 role in protecting those species from the toxicity of
6 aluminum.

7 And I believe they also suggested that the --
8 there was additional data concerning aluminum toxicity
9 that the state needed to look at, as well.

10 Q. In that letter on page 2, EPA specifically
11 states that pH was a, quote, unquote, critical factor,
12 correct?

13 A. Correct.

14 Q. Did you review Amigos Bravos' Supplemental
15 Exhibit L?

16 A. I did.

17 Q. Do the mussel species noted in Exhibit L
18 raise, in your view, concerns similar to those raised by
19 EPA for West Virginia?

20 A. Yes.

21 Q. Are these species effectively similar to --
22 are they -- how are they similar to the species -- the
23 West Virginia species similar to the species in New
24 Mexico?

25 A. Well, some of the research that I looked at on

1 these mussel species belonged to the same genus in the
2 studies that I've looked at. So I looked at certain
3 mussels and found that they're fairly sensitive to
4 aluminum as the same genus that you would find here in
5 New Mexico, some New Mexico waters.

6 Yeah.

7 Q. Given EPA's letter, Gensemer's rebuttal
8 Exhibit 8, the EPA letter, and the presence of mussels
9 in New Mexico, is it your expert view that New Mexico's
10 hardness-based aluminum criteria remain sufficiently
11 protective of aquatic life in New Mexico?

12 A. Can you rephrase that?

13 Q. Given all the information that you've
14 presented in testimony and discussing EPA's letter,
15 Gensemer's rebuttal Exhibit 8, and the presence of
16 mussels in New Mexico, is it your expert view that New
17 Mexico's hardness-based aluminum criteria is
18 sufficiently protective of aquatic life, specifically
19 mussels, in New Mexico?

20 A. I would be concerned for mussels present in
21 New Mexico's waters, and one of the reasons being is
22 that some of the levels -- some of these studies that I
23 have seen where they show toxicity is actually -- these
24 are levels that are near the original EPA criteria. I
25 think I've seen levels of 500 micrograms per liter

1 that's sort of where these mussels exhibit toxicity in
2 some of these studies.

3 So I wouldn't be very confident that the
4 current New Mexico criteria would be protective of these
5 sensitive species.

6 Q. Earlier in the day today, a wildlife
7 biologist, Mr. Klingel, presented some information
8 regarding not just mussels but gastropods.

9 Would you agree with Mr. Klingel's
10 characterization that there are similar toxicity impacts
11 to mussels and to gastropods?

12 A. I'd say it's possible. I mean, they're both
13 mollusks. But other than that, I couldn't -- couldn't
14 say anything further.

15 Q. On page 4 of your testimony -- written direct
16 testimony, you note that EPA's working to revise the
17 1988 aluminum water quality criteria, the 304(a)
18 criteria; is that correct?

19 A. That's correct.

20 Q. In that revision process, EPA is evaluating
21 criteria that would use multiple parameters, not just
22 hardness, but also pH, dissolved organic carbon and
23 temperature; is that correct?

24 A. That's correct.

25 Q. And that's sort of a full range of key

1 parameters for assessing aluminum toxicity.

2 A. Yeah. I mean, a lot of those parameters have
3 been shown -- or at least some studies indicate that a
4 lot of those parameters are actually more significant
5 than hardness in affecting or influencing aluminum's
6 toxicity to aquatic life.

7 And so that's kind of another question that I
8 have, is why did you come up with a hardness-based
9 equation when there's other parameters that actually
10 have a more profound effect on aluminum toxicity?

11 Q. So this reinforces your conclusion that New
12 Mexico's current standard by focusing solely on hardness
13 is -- well, I guess I'm characterizing it this way --
14 simplistic and not scientifically defensible and not
15 protective of aquatic species across the entire 6.5 to
16 9.0 pH range?

17 A. Correct.

18 Q. Until EPA completes its evaluation process,
19 EPA's 304(a) aluminum criteria, while imperfect, remain
20 EPA's only recommended criteria, correct?

21 A. Correct.

22 Q. Notably, the efficacy of these criteria while
23 again imperfect is supported by 20 years of direct
24 observation in surface waters, unlike the hardness-based
25 criteria, correct?

1 A. Correct.

2 Q. Therefore, reverting, as Amigos Bravos
3 proposes, to the pre-2009 aluminum criteria of
4 750 micrograms per liter acute and 87 micrograms per
5 liter chronic toxicity is substantially more protective
6 of aquatic species.

7 A. Correct.

8 Q. And is it your expert opinion that reversion
9 to this criteria is premised on sound scientific
10 evidence?

11 A. Yeah. I do. I mean, for me, it's just based
12 on the uncertainty that I have for the current New
13 Mexico criteria. I really don't know how protective
14 they would be, and so I think the safest thing is to go
15 back to the EPA criteria, and particularly, you know,
16 looking at some of these sensitive species like mussels
17 where it indicates that toxicity is near the original
18 EPA criteria.

19 You know, in addition, some of the work that I
20 did showed that hardness -- so I looked at the toxicity
21 of aluminum to rainbow trout at alkaline pH, and we
22 found that really hardness didn't have any effect. We
23 saw no difference in the LC 50s when we changed the
24 different hardnesses. And so with alkaline pH, we saw
25 no effect with hardness.

1 And for me, that essentially says that if you
2 utilize the New Mexico criteria, let's say, anywhere
3 greater than 100 milligrams per liter hardness, that if
4 hardness doesn't have an affected alkaline pH, then
5 you're going to be adding more aluminum to the water
6 than sensitive species can tolerate, if the research
7 that I have is true.

8 And I would go further in saying that more
9 work needs to be done to validate that. But if hardness
10 is not protective, and you say you can continue to add
11 more and more aluminum as the hardness goes up, you're
12 going to exceed some of these LC 50s that I generated
13 from some my -- some of my work.

14 Q. So to be clear, would reversion from the
15 hardness-based criteria to the EPA-recommended 304(a)
16 criteria remedy substantial underprotection of aquatic
17 species -- of aquatic species?

18 A. Correct.

19 Q. To illustrate this point, could you turn back
20 to Table 5 on page 1 of your written testimony?

21 A. Table --

22 Q. Table 1.

23 A. Table 1. Yes.

24 Q. And could you illustrate how that substantial
25 underprotection works in terms of the data in this

1 table?

2 A. So if you look up where it says Current New
3 Mexico Standards (Total Recoverable Aluminum), if you
4 look at my work at alkaline pH, first of all, it says
5 hardness has no effect or very little effect on aluminum
6 toxicity, and we came up with LC 50s of around
7 6,000 micrograms per liter, for just about all the
8 different hardnesses we looked at. Okay?

9 MS. CONN: You might want to clarify that --
10 what you're talking about is the alkaline pH and what
11 that is.

12 MR. GUNDERSEN: Above pH 7. Yeah. So
13 alkaline pH above pH 7.

14 So anyway, we came up with an LC 50 of around
15 6,000 micrograms per liter, and we said that hardness
16 doesn't have any effect.

17 So if you look at this table and you look up
18 on the column at the very top where it says Mean
19 Hardness, and you look at 150, and you go down to the
20 current New Mexico standard, it says that you can allow
21 5,960 micrograms per liter of aluminum and everything's
22 going to be all right.

23 Well, I just told you that rainbow trout
24 exposed to 6,000 micrograms per liter we saw 50 percent
25 mortality, and we found that hardness did not seem to be

1 as protective to those species.

2 So that seems problematic to me.

3 Q. (BY MR. SCHLENKER-GOODRICH) So fundamentally,
4 that means a lot of dead fish.

5 A. Could be. Yes.

6 Q. Thank you.

7 No further questions.

8 MR. CHAVEZ: Okay. So at this time, if I
9 understand correctly, you still have more direct from
10 these individuals, or are you done in entirety?

11 MR. SCHLENKER-GOODRICH: No. My direct and
12 rebuttal is completed.

13 MS. CONN: On aluminum.

14 MR. SCHLENKER-GOODRICH: On aluminum only, not
15 relative to any of the other Amigos Bravos proposals.

16 MR. CHAVEZ: So that's what I'm saying.

17 MR. SCHLENKER-GOODRICH: Yeah. So there's
18 continued testimony on in particular temporary standards
19 and a little bit on Chino Mines' proposal.

20 MR. CHAVEZ: So we're going to move to cross
21 right now on these issues that have been presented.

22 MR. SCHLENKER-GOODRICH: Yeah, specifically on
23 aluminum.

24 MR. CHAVEZ: Okay.

25 So keeping in the -- do we mind going in the

1 same order, or did we agree that -- okay.

2 So if I can go to NMED first for
3 cross-examination on these issues.

4 MR. VERHEUL: Sorry. I apologize for the
5 delay.

6 Mr. Hearing Officer, would now be a good time
7 to renew our objection to the additional exhibits
8 proposed by Amigos Bravos?

9 I was waiting for Mr. Schlenker-Goodrich to
10 move all of his exhibits into evidence --

11 MR. SCHLENKER-GOODRICH: Maybe --

12 MR. VERHEUL: -- but I want to do this at a
13 time for everyone.

14 MR. SCHLENKER-GOODRICH: Maybe I -- I will
15 formally move for the admission of our prefiled written
16 testimony and our exhibits into the record.

17 MR. CHAVEZ: Okay.

18 MR. VERHEUL: And we renew our objection to
19 those exhibits on a number of grounds. And this gets
20 back to what each of these exhibits are.

21 MR. CHAVEZ: Just real quick, do you have a
22 copy of those exhibits handy so I can --

23 MR. SCHLENKER-GOODRICH: Unfortunately, no. I
24 gave all my hard copies to Pam. I only have an
25 electronic.

1 MR. CHAVEZ: Okay. Not a problem.

2 MR. VERHEUL: Our primary objection is
3 procedural. And by procedural, I don't mean a
4 technicality that lawyers use to keep things out of
5 evidence. By procedural, I mean, as my co-counsel
6 referred to earlier with regard to some of the other
7 exhibits, the element of litigation by surprise.

8 These are -- these are complex, technical --
9 complex, technical documents that take some amount of
10 time for experts to assimilate and to respond to.
11 Logistically, Bureau staff has been here in this hearing
12 so they've been unable to really review these documents
13 and come up with a valid response to them.

14 But more importantly, you know, counsel for
15 various parties test- -- or spoke earlier today about
16 the need for a robust rulemaking process by which
17 parties are able to exchange information amongst each
18 other, respond to each other's proposals, really
19 understand where the differences are and -- and then,
20 you know, come into the hearing and present those
21 differences to the Commission itself.

22 If filing deadlines are not enforced in these
23 types of hearings, and things can be filed all the way
24 up until the morning of the hearing itself, then it's
25 really not possible for us to just present our

1 differences in opinion that we've worked out to the
2 Commission, then we're still working out those
3 differences amongst ourselves.

4 We agree that it's important to have a process
5 by which all the parties communicate with each other,
6 come to an understanding of what the differences are,
7 where we still disagree, and also understand where we
8 have agreements.

9 I think the Department has shown in this
10 triennial review in working with various other parties,
11 including Amigos Bravos, that we're absolutely willing
12 to understand other parties' concerns and to come to
13 agreements prior to coming to hearing.

14 If -- if we're able to file things up until
15 the last minute and filing deadlines are not enforced,
16 then we're really unable to do that.

17 And furthermore, there is -- there's really no
18 incentive for the parties to get together prior to the
19 hearing, again, in respect for the Commission's time,
20 and -- and really present a cogent set of here's where
21 we differ, here's why, so, Commission, you can now make
22 a decision.

23 MR. CHAVEZ: Okay. So timeliness is a big
24 basis of --

25 MR. VERHEUL: Timeliness.

1 You know, and I would also add substantively,
2 you know, there are -- there are four things that Amigos
3 Bravos has put forth.

4 The first was a -- not really an exhibit but a
5 set of comments or proposed changes, I think, on -- on
6 the Department's proposal regarding temporary standards.

7 That's a great document that would make the
8 basis for a great discussion that we would have liked to
9 have had with them prior to this hearing. At this
10 point, I think it's got to be considered untimely only
11 because I'm not sure whether you consider this rebuttal
12 testimony, but in any case, it's -- it's coming in
13 beyond any deadline for filing any sort of testimony.

14 The EPA guidance, which was, I believe, their
15 Exhibit K, that was referenced in the Environment
16 Department's petition and statement of basis. So we
17 really don't have a strong objection to that
18 substantively.

19 However, when you get to Exhibit M, Exhibit M
20 is a position -- or rather an opinion paper. They're
21 not, to my knowledge, producing the author of that paper
22 to sit here for cross-examination and to val- -- you
23 know, to provide -- provide his expert credentials such
24 that he could validate the opinion in that paper.

25 An opinion paper, as far as I know, is not

1 peer reviewed. Dr. Gundersen just testified as to peer
2 review being an important component of scientific
3 credibility for these types of things.

4 And then the list of mussels itself, which I
5 believe was Exhibit L, that in and of itself -- it's a
6 list of mussels, but that in and of itself is not
7 necessarily any kind of -- it doesn't have any probative
8 value towards whether or not these mussels are going to
9 be impacted by the aluminum standard in New Mexico.

10 MR. SCHLENKER-GOODRICH: Mr. Hearing
11 Officer --

12 MR. CHAVEZ: One second.

13 MR. SCHLENKER-GOODRICH: -- if I may take
14 these in turn.

15 MR. CHAVEZ: One second.

16 MR. SCHLENKER-GOODRICH: Or, Lou, you go --
17 you want to go first?

18 MR. ROSE: Yeah.

19 I have similar objections, but I wondered if
20 you wanted to wait for Mr. Schlenker-Goodrich to
21 respond.

22 MR. CHAVEZ: No. I'm sorry. No. I want to
23 take -- I want to take everybody's objections, and then
24 I'll have you --

25 MR. SCHLENKER-GOODRICH: Perfect.

1 MR. CHAVEZ: -- respond, because this is --
2 yeah.

3 MR. ROSE: We now get to the lawyerly part of
4 all this, right?

5 MR. CHAVEZ: Mr. Rose.

6 MR. ROSE: I concur with the Department's
7 objections to Exhibit L and M on somewhat different
8 grounds, however.

9 I don't object to the admission of their
10 prefiled direct and rebuttal testimony and the exhibits
11 attached to it.

12 As to Exhibit L, it's a list, but there's no
13 testimony of what the derivation of the list is, how
14 relevant it is. I'm not sure what weight -- there's
15 nothing to give the Commission any idea of what weight
16 to give it, other than it's a list.

17 And so without being able to -- without being
18 able to question how the list was developed, who
19 developed it, is it proper, we don't see that it's
20 admissible in this proceeding. I'm less concerned about
21 the timeliness of it.

22 And to M, I concur in the Department's
23 objection in that it's a -- it's being offered -- the
24 predicate is the attachment of the EPA letter to West
25 Virginia that was attached to Dr. Gundersen's rebuttal.

1 That was offered only for the purpose of
2 showing that EPA did not substantively make a decision
3 on the West Virginia proposal. It wasn't being offered
4 with respect to any of the substance of the letter, only
5 what EPA's action was in terms of the West Virginia
6 proposal.

7 What Exhibit M is is a substantive document
8 that was submitted -- at least from what I could tell,
9 submitted in the course of the West Virginia proceeding.
10 What it amounts to is substantive evidence that's being
11 presented outside of the technical case, outside of the
12 parties being able to develop rebuttal testimony and
13 respond to.

14 If this had been submitted in support of their
15 position initially, we would have had the opportunity to
16 develop responsive technical evidence. Now, as it
17 stands, we're unable to do so.

18 And so I'm not sure what weight the Commission
19 can or should give to it, but given the timeliness, we
20 think it's inappropriate to admit it for the purpose of
21 trying to establish problems with the existing state
22 standard without us being able and any other party being
23 able to file a technical response to that and indicate
24 and explain to the Commission why they shouldn't rely on
25 the information in that exhibit.

1 And on those grounds, we would object to
2 Exhibits L and M.

3 MR. CHAVEZ: I'd like to move to Freeport at
4 this time for any comment.

5 MS. GREENWALD: Could I ask Amigos Bravos a
6 few questions?

7 MR. CHAVEZ: No, ma'am.

8 MS. GREENWALD: Concerning these exhibits?

9 MR. CHAVEZ: No, you cannot. I'm sorry.
10 Freeport? Comment?

11 MS. CHAPPELLE: Thank you, Your Honor.

12 Actually, we don't -- we agree with some of
13 the -- not some of the questions that have been raised,
14 concerns have been raised, and I think those were well
15 stated, and I don't have anything further to add.

16 MR. CHAVEZ: Thank you.

17 San Juan?

18 MS. MCCALED: Mr. Hearing Officer, I'd like to
19 state I have -- San Juan Water Commission has no
20 objection to the introduction of the prefilled written
21 direct and rebuttal testimony. I think Mr. Rose stated
22 succinctly, as did the Department's attorney, the
23 concerns with the technical exhibits and the importance
24 for the expert witnesses to have time to consider those
25 in advance of hearing.

1 I would like to point out for the benefit of
2 the parties that one of the exhibits -- and I'm sorry, I
3 don't have the exhibit number -- it may be K --

4 MR. SCHLENKER-GOODRICH: I think it's C-2, if
5 you're referring to the variance document.

6 MS. MCCALED: Yes.

7 I was going to point out that it has
8 previously been introduced as part of Mr. Nylander's
9 exhibits, Exhibit K. Okay.

10 Thank you.

11 MR. CHAVEZ: So K has --

12 MS. MCCALED: K is in the record.

13 MR. CHAVEZ: Okay.

14 MS. MCCALED: Yes, sir.

15 MR. SCHLENKER-GOODRICH: Yeah. Amigos Bravos'
16 Exhibit K is in the record as San Juan Citizens -- San
17 Juan Citizens -- San Juan Water Commission Exhibit C-2.

18 MR. CHAVEZ: Okay.

19 So before -- before you go, so I'm going to
20 admit the evidence as part of your prefiling.

21 With regard to essentially K, M and L, K,
22 since it's already part of the record, is not an issue,
23 and that's allowed in.

24 (Exhibits Amigos Bravos A through K admitted
25 into evidence.)

1 MR. CHAVEZ: So let's discuss M and L.

2 MR. SCHLENKER-GOODRICH: There was also an
3 issue, Mr. Hearing Officer, regarding the propriety of
4 submitting proposed changes, as well.

5 MR. CHAVEZ: Okay.

6 So if you can address those three issues, and
7 I would like you to focus on the issue of timeliness,
8 which I do have a concern with, and as to each
9 substantive value.

10 MR. SCHLENKER-GOODRICH: So let me focus
11 first -- before I get to proposed changes, let me focus
12 on the exhibits. I think that they're a little bit
13 easier issues to deal with.

14 MR. CHAVEZ: Please.

15 MR. SCHLENKER-GOODRICH: And there are
16 distinct issues with both in terms of propriety of their
17 admission.

18 Exhibit L is a list of mussel species in New
19 Mexico. This was developed from New Mexico state agency
20 documentation. The Commission is fully entitled to take
21 notice of the presence of mussels. There is no
22 probative value one way or another of the presence of
23 mussels. It is simply a commonly known fact.

24 In any judicial proceeding, there are
25 provisions for courts to take judicial notice of just

1 these sorts of facts. For example, if you look at the
2 Federal Rules of Evidence, there is a Rule 201 that
3 provides for judicial notice of fact.

4 And if I can read from Rule 201(b), the kinds
5 of facts that may be judicially noticed, this includes
6 facts that are generally known within the trial court's
7 territorial jurisdiction, here in New Mexico, or can be
8 accurately and readily determined from sources whose
9 accuracy cannot reasonably be questioned.

10 So the fact that there are mussel species in
11 New Mexico, I think, is a generally known fact.

12 Can they be accurately and readily determined?
13 As I mentioned, the information from mussels in Exhibit
14 L, as Exhibit L says, was derived from BISON, which is a
15 state agency program, to identify mussels.

16 So I think that it is a simple question of
17 saying are there mussel species in New Mexico? Yes. To
18 exclude this evidence would suggest that the Commission
19 would operate with the exclusion of knowing the common
20 fact that there are mussel species in New Mexico.

21 Now, what the Commission wants to do with that
22 information is, of course, at the Commission's
23 discretion. But to pretend in this Commission
24 proceeding that mussels don't exist seems a bit odd to
25 me.

1 MR. CHAVEZ: Is this the most recent list that
2 exists in the -- in the general public?

3 MR. SCHLENKER-GOODRICH: This list was -- I
4 believe if you look at Exhibit L -- get to it -- it
5 notes the date that it was derived from the Biota
6 Information System of New Mexico, BISON-M, New Mexico
7 Department of Game and Fish, October 8, 2015.

8 So as of that date it is, as far as we can
9 understand, the most recent list.

10 MR. CHAVEZ: Okay. Please proceed.

11 MR. SCHLENKER-GOODRICH: So that is Exhibit L.

12 Now, Exhibit M, I agree -- let me -- well,
13 I'll address the timeliness issues with both.

14 With Exhibit M, we understand that it is a
15 substantive document. The question, and as Mr. Rose
16 himself noted before, is that in terms of introduction
17 of evidence to rulemaking proceedings, that pretty much
18 all evidence can and should be considered so long as it
19 is relevant.

20 So our view is that Exhibit M, which is an
21 opinion report, is, in fact, relevant because it deals
22 with the hardness-based aluminum criteria that was
23 withdrawn in West Virginia, but is very close and, in
24 fact, was derived from the same expert consulting group
25 as the one for New Mexico.

1 So it does have probative value.

2 Now, acknowledging the timeliness component,
3 the Commission can certainly give what weight it desires
4 to that opinion report. I'm not expecting the -- this
5 opinion report to carry the day. In fact, it's not
6 necessary for Amigos Bravos to carry the day.

7 All it simply does is affirm that what we are
8 looking at here in New Mexico raises issues that are
9 similar to the issues in West Virginia. And so to the
10 degree that we want to be consistent on how we are
11 addressing aluminum toxicity issues, it does have some
12 measure of probative value.

13 So that's Exhibit M.

14 With regard to proposed changes, I have come
15 before this Commission since, I believe, 2004, 2005.
16 I've been -- I've participated in the prior two
17 triennial reviews. I also participated in the
18 designation of the outstanding national resource waters
19 for the Valle Vidal and, I believe, two separate
20 rulemakings dealing with antidegradation rules.

21 In every single one of those proceedings, all
22 of the parties in the course of those proceedings had
23 submitted, even during the course, new proposed changes
24 based on discussions that had taken place.

25 So I'm cognizant of in an ideal world it would

1 be best to try to work out these proposed changes in
2 advance and to try to get the Department's perspective
3 on that. I acknowledge that.

4 I don't live -- and I don't think any of us
5 here live in an ideal world. And so to preclude our
6 ability to introduce proposed changes at this time, many
7 of which are addressed to discrepancies between the
8 testimony submitted by the Department and the plain
9 language of the rule itself, will undermine our ability
10 to engage in correct rulemaking.

11 Now, if the Department doesn't want to talk to
12 us during the proceedings about those proposed changes,
13 they're certainly entitled to take that position. But
14 we are certainly entitled to raise those proposed
15 changes to help inform a good rulemaking process.

16 Amigos Bravos has opposed the temporary
17 standards provision, but we understand that there is
18 significant interest in this standards provision here in
19 New Mexico. So our only intent is to provide
20 recommendations about how that can be structured.

21 Every recommendation, by the way, is tied to
22 testimony that has been submitted by either Amigos
23 Bravos or the Department or the San Juan Water
24 Commission, for that matter. And so it is appropriate
25 to raise those issues.

1 I would also submit that it is improper to
2 preclude that on evidentiary grounds. This is an
3 evidence. This is a proposed change to the rules. And
4 the question of whether or not it may be considered by
5 the Commission is not an evidentiary issue, it is
6 whether or not it is legally a logical outgrowth from
7 the underlying testimony submitted by the parties. And
8 we submit that it is a logical outgrowth.

9 Now, if the Department contends that it is not
10 a logical outgrowth of the proposed testimony, we will
11 be willing to engage in argument about that. I think
12 the most appropriate time to do that would be in our
13 written closing arguments after the hearing.

14 But I would submit that that is very much not
15 an evidentiary issue. I would submit that it is very
16 much against the practice of this Commission for at
17 least as long as I have practiced before the Commission,
18 and I'm sure the other parties and counsel here can
19 attest to that fact, that I think all these parties have
20 probably submitted proposed changes in the course of the
21 proceedings, including the Department itself, and that
22 the validity of those proposed changes is addressed not
23 as an evidentiary issue, but whether or not it is a
24 logical outgrowth of the underlying testimony already
25 presented to the Commission.

1 MR. CHAVEZ: Okay. So notwithstanding the
2 timeliness of everything, I want to get to that, and you
3 say that this is not evidentiary in nature.

4 You entered in 2014. Why -- why are we just
5 seeing that right now? I mean, why -- why didn't these
6 issues come up with all the other parties before the
7 start of this hearing to possibly get to some agreement?

8 MR. SCHLENKER-GOODRICH: I think, very
9 candidly, we started to prepare for this issue several
10 weeks ago. And in preparation, we were taking a very
11 hard position that the temporary standards proposal was
12 inappropriate and that did not sufficiently protect New
13 Mexico's waters.

14 So our interest in recognizing and reading
15 some of the tea leaves of how this Commission proceeding
16 may play, our interest was ensuring that at the very
17 least the temporary standards proposal was constructed
18 in the best possible way.

19 MR. CHAVEZ: Okay.

20 I'd like to go to the parties on this limited
21 issue. It's not evidentiary in nature. Now -- okay.
22 But if you can address that.

23 MR. VERHEUL: I would just say that I would
24 agree with counsel for Amigos Bravos that posthearing
25 filings would probably be both the most appropriate and

1 logistically the best time to address the logical
2 outgrowth argument.

3 MR. CHAVEZ: Okay.

4 MR. VERHEUL: We believe that's more
5 complicated than could be addressed in the limited time
6 that we have here for the rest of the week.

7 MR. CHAVEZ: So are you asking me, then, to --
8 are you renewing your objection on that portion of it?

9 MR. VERHEUL: Yes.

10 MR. CHAVEZ: Okay.

11 Chevron, any thoughts on that?

12 MR. ROSE: We take no position on the
13 supplemental filing as to the issue that counsel for the
14 Department just addressed other than to recognize, I
15 think, as Mr. Schlenker-Goodrich said, that most of
16 these -- I mean, there's probably going to be even more
17 changes being proposed by parties in response to this in
18 their closing arguments and final changes to the
19 Commission.

20 So it's becoming -- it's an iterative process,
21 and historically the proposals have changed over time.
22 And so this -- this appears to be one part of that
23 process. And I suspect that when you see the final
24 proposed changes they may be somewhat different than the
25 parties originally proposed, simply because it takes

1 into account Commission questions and cross-examination.

2 So I think it seems to me that that's going to
3 happen. Maybe that's the better place to address it,
4 rather than the way Amigos Bravos is choosing to do it
5 now, that may be reserving it for posthearing submittals
6 is more appropriate.

7 As to the admission of the other exhibits, I
8 think I said my piece on that so I --

9 MR. CHAVEZ: Okay.

10 MR. ROSE: -- won't say anything more than
11 that.

12 MR. CHAVEZ: So -- so we can almost put this
13 to bed.

14 MR. SCHLENKER-GOODRICH: Can I say one more?

15 MR. CHAVEZ: Go ahead.

16 MR. VERHEUL: I'm -- our contention is simply
17 that there's got to be a window by which all parties
18 have to submit everything prior to the hearing, and that
19 window has to allow the Commission itself time to digest
20 all that documentation, and then anything additional
21 that isn't brought up verbally at the hearing is
22 probably, as Mr. Rose suggests, better left as a
23 posthearing filing, assuming that it's in response to
24 something that came up during the hearing.

25 But, you know, preserving that window of time

1 between which the final point where parties can submit
2 things and the Commission actually has to hear oral
3 argument -- again, that's just respect for the
4 Commission's time and for the time that we're taking in
5 this hearing.

6 MR. CHAVEZ: Okay.

7 MR. SCHLENKER-GOODRICH: If I may make two
8 quick points.

9 MR. CHAVEZ: Final word.

10 MR. SCHLENKER-GOODRICH: You know, I'm -- the
11 concern with dealing with this in only a posthearing
12 submission is -- and the intent in our providing it on
13 Monday instead of a posthearing submission was that so
14 that we could bring this out and allow for some measure
15 of cross-examination by either the parties or the
16 Commission itself.

17 You know, what Mr. Verheul is suggesting could
18 be problematic, because if the Department -- and I'm
19 assuming from the basis of the conversations that we
20 have had over the course of the last few days -- decides
21 that they want to make alterations to their proposal,
22 Amigos Bravos wasn't aware of those at that time, the
23 Commission was not aware of those, nor were any of the
24 other parties.

25 So to limit it to postsubmission filings

1 precludes the ability of all the parties while we are in
2 this room to have a dialogue, to tease out whether or
3 not these are good or bad ideas. And so you would be --
4 essentially be precluding and constraining the ability
5 of the parties to modify their proposals on the basis of
6 the evidence and the discussion that has arisen in the
7 course of these proceedings. That's why we have these
8 rulemaking hearings.

9 The second thing I want to say, very quickly,
10 is on this overall timeliness issue, as apparently had
11 it been distilled down to, what's good for the goose is
12 good for the gander.

13 If these exhibits are precluded purely on the
14 basis of timing, I would note that we did provide these
15 on Monday in advance of the hearing. Yesterday
16 everybody in this room witnessed when Chino Mines
17 presented new exhibits that I wasn't even aware of until
18 they were providing their technical testimony regarding
19 public participation components.

20 I did not specifically object to them, even
21 though, frankly, I was a tad annoyed getting them right
22 before the testimony, because I understand that if
23 notice happened from Chino Mines, and we were making an
24 argument that there was improper notice, it would seem a
25 little formalistic to suggest that that evidence should

1 be precluded.

2 MR. CHAVEZ: That evidence in your -- those
3 are two different, obviously, documents and issues. So
4 I know why you're pointing towards Chino for that, but
5 two different areas that we're looking at.

6 MR. SCHLENKER-GOODRICH: My only point,
7 Mr. Hearing Officer, respectfully, is that I don't think
8 that these documents can precluded -- be precluded
9 purely on the basis of timeliness and that my objection
10 to their preclusion on timeliness -- that there needs to
11 be something a little bit different from that.

12 And I recognize that, for example, in
13 particular Exhibit M, which is a technical document, an
14 opinion report, is a bit distinct from that.

15 But the Exhibit L, dealing with mussels and
16 just the notice of presence of mussel species in New
17 Mexico, is not very different from the several sets of
18 minutes that Chino Mines presented for the simple
19 proposition that notice, in fact, did occur.

20 So I think that the mussels exhibit is very
21 similar and analogous to the exhibits submitted on
22 notice and public participation. In fact, the minutes
23 were more substantial because they were multi-page
24 explanations of a variety -- of all these community
25 workgroup meetings, whereas Exhibit L is a one-page

1 document that stands for the proposition that, hey, New
2 Mexico has mussels.

3 MR. CHAVEZ: Okay. I'm going to allow Exhibit
4 L, and myself and the Commission will be able to
5 determine what weight to provide that evidence.

6 (Exhibit Amigos Bravos L was admitted into
7 evidence.)

8 MR. CHAVEZ: As to the proposed changes, I'm
9 not going to allow that. I think the significance of
10 bringing that in and not having the parties be able to
11 have a full discussion on that, but just having the
12 Commission -- having these significant changes before
13 them without much discussion is potentially problematic.

14 So I will not allow that as -- the same for
15 Exhibit M. I'm not going to allow that.

16 While I note your argument that it does have
17 some probative value, I think considering we don't have
18 anybody to testify as to that document, and -- and I'm
19 going to address timeliness in a second -- there's a
20 little bit of timeliness with -- intermingled in there.
21 I'm not going to allow that document.

22 With regard to timeliness, I understand your
23 arguments, but -- this would go for you and any party --
24 considering the nature and significance of getting these
25 documents in a time right before -- and it was --

1 everybody had the day off, it was Indigenous People's
2 Day. I think that that really put the parties in a
3 bind. They weren't filed technically until the first
4 day of the hearing.

5 And once again, I know you're going to argue
6 that some other parties were able to do that. I don't
7 think that their evidence was of the substantive nature
8 of which you provided.

9 So having said that, once again, I'm going to
10 allow Exhibit L and not allow Exhibit M or the proposed
11 changes.

12 MR. SCHLENKER-GOODRICH: Mr. Hearing Officer,
13 I would like to reserve the ability to argue that in
14 legal briefs with our closing argument.

15 I'd also ask for you to move -- I would also
16 move for you to reconsider that, because essentially
17 what you are saying is no one has the ability to provide
18 proposed changes that are a logical outgrowth of their
19 testimony, and if that is the case, then Amigos Bravos
20 will be forced to move to object to every single
21 proposed change that is made that has not yet been
22 discussed, which would limit every party here from
23 making changes to any of their proposals.

24 And I think that that could, frankly, grind
25 this entire rulemaking process to a halt, and I would

1 encourage you to perhaps ask other counsel for their
2 perspective on this. I think that it's very
3 problematic, thinking through the consequences.

4 MR. CHAVEZ: Okay.

5 MR. SCHLENKER-GOODRICH: So respectfully.

6 MR. CHAVEZ: On that issue, would you like to
7 address that?

8 MR. VERHEUL: It's unclear whether counsel is
9 referring to some sort of chilling effect by which we're
10 all now unwilling to put forward any changes or new
11 proposals?

12 MR. SCHLENKER-GOODRICH: I would say that
13 under the ruling from the Hearing Officer, that if
14 parties are precluded from making proposed changes, and
15 if there's clarification that we can present these
16 proposed changes only in posthearing submittals, maybe
17 that's a remedy for this, but at this point, there's not
18 simply a chilling effect on it, but there -- as I
19 understand this ruling, that there is an absolute
20 preclusion from submitting new proposed changes that are
21 a logical outgrowth of any of the existing proposals or
22 testimony that is before this Commission.

23 That would raise -- if Amigos Bravos is
24 precluded from doing that, but other parties are
25 entitled to, that would raise, in my view, a significant

1 due process concern that would be subjected to judicial
2 review.

3 MR. VERHEUL: I just want to make a clear
4 distinction. Parties are free to change their minds and
5 change their positions verbally at hearing. We've seen
6 that done several times before.

7 The difference between doing that at the
8 hearing and what Amigos Bravos has attempted to do with
9 regard to their written prehearing -- barely prehearing
10 submissions is that was in -- that was not in response
11 to any testimony that was heard at the hearing. It was
12 in response to nothing. It was -- it was just something
13 to get in the record at the last minute.

14 MR. SCHLENKER-GOODRICH: We will be
15 elucidating the reasons for each of these changes in our
16 oral testimony from Ms. Conn, if we are allowed to do
17 so.

18 MR. CHAVEZ: Chevron, on that specific issue?

19 MR. ROSE: We have no argument on that other
20 than to say, you know, what the parties have said
21 before, that it ought to be as broad -- I mean, what
22 we're trying to do is get the best rule in front of the
23 Commission, and as long as the parties are all given the
24 opportunity to question and cross-examine on specific
25 proposals, that that's what you have to weigh.

1 And not knowing the specifics, that's what we
2 would ask for, that it not be totally precluded, but at
3 the same time there be some sense of timing involved in
4 what you're going to allow and what you're not going to
5 allow.

6 MR. CHAVEZ: Okay.

7 Ms. Chappelle?

8 MS. CHAPPELLE: You know, listening through
9 various issues, it kind of sounds like we are getting
10 caught up on potentially some evidentiary kind of
11 analysis on top of -- layered on top of kind of a
12 rulemaking process.

13 So from my perspective, it seems like the
14 solution, obviously, is it is a rulemaking, we want to
15 get to the best final result, it is a, you know, natural
16 process where as we go through testimony, et cetera,
17 those things can be refined.

18 I think the issue is that something was filed
19 in writing kind of prior to that process unfolding at
20 hearing that's got folks trying to think through that
21 issue, and --

22 So I don't really have a good recommendation
23 for you, Your Honor, on how to get through that, but I
24 think there is validity, obviously, in the concerns
25 raised by NMED with respect to kind of the last-minute

1 nature of that and what to do with it essentially
2 procedurally and what -- what probative value that
3 carries with it at the beginning of a hearing.

4 And so I think that's probably part of the
5 issues that folks are trying to think through. So if
6 there's a way to kind of get through that and move
7 forward to the rest of the hearing, whether it's letting
8 them have that conversation with their witnesses now and
9 dealing with it in the posthearing process, briefing
10 process, maybe that's a way to do it.

11 MR. CHAVEZ: Thank you.

12 San Juan.

13 MS. MCCALEB: I don't have a lot to add to
14 what other counsel have said. I would like to make a
15 point and recognize, as has been said by Mr. Erik -- by
16 Mr. Schlenker-Goodrich -- I'm sorry, Erik.

17 MR. SCHLENKER-GOODRICH: No worry.

18 MS. MCCALEB: -- and Mr. Rose, that has been
19 the practice in the past, that the parties could -- and
20 even the Department in the past has shown up on a
21 particular day of hearing with a new draft of proposed
22 language, with changes.

23 The one distinction has been I do not recall
24 in the past where that has been accompanied by a
25 detailed statement of basis, which I think is a

1 distinction. But I think it is very useful to have the
2 opportunity to have a written document with the words on
3 that document that the parties can then address
4 verbally.

5 MR. CHAVEZ: Okay. Thank you.

6 MR. SCHLENKER-GOODRICH: Mr. Hearing Officer,
7 can I make one more final statement?

8 MR. CHAVEZ: One more.

9 MR. SCHLENKER-GOODRICH: It will be very, very
10 brief.

11 I recognize the timeliness issue, but as
12 Ms. McCaleb had referenced, in the past parties have
13 submitted, including the Department, in prior Commission
14 proceedings proposed changes on the very day and
15 presented those.

16 Yes, we provided a statement -- a basis for
17 that, but if anything, we are trying to be overly
18 respectful and try to give everybody as much of a
19 heads-up as possible.

20 So if we were entitled to submit proposed
21 changes today for our -- for our proposal with regard to
22 temporary standards, that are a logical outgrowth of
23 Ms. Conn's testimony, and that we support those through
24 testimony, oral testimony, from my understanding, that
25 seems to be perfectly appropriate.

1 All we did by submitting it on Monday was give
2 as much heads-up notice as we were able to do reasonably
3 to all the parties. So if anything, we're identifying
4 so that the parties can prepare, and I understand that
5 is less time, but it's more time than if we just raised
6 it today during our oral testimony.

7 So if anything, it seems that we've done more
8 than has been required by prior practice before this
9 Commission.

10 MR. CHAVEZ: Thank you.

11 So what I am going to do is I'm going to take
12 it under reconsideration and have all parties --
13 interested parties address it in posttrial briefing,
14 like immediately after. We'll set up a time --
15 deadlines and timelines for that.

16 MR. SCHLENKER-GOODRICH: Thank you,
17 Mr. Hearing Officer.

18 MR. CHAVEZ: Thank you.

19 THE REPORTER: Could we take a few minutes?

20 MR. CHAVEZ: Yes.

21 We can take a five-minute break and come back.
22 Thank you.

23 (Proceedings in recess from 3:23 p.m. to
24 3:37 p.m.)

25 MR. CHAVEZ: At this point, we would like to

1 continue with the cross-examination of these witnesses
2 on the limited issues that have already been brought up
3 in direct.

4 You may proceed.

5 Oh, one more thing before we proceed. We need
6 to on the record itemize the exhibits that have been
7 approved.

8 MR. SCHLENKER-GOODRICH: As I understand it,
9 Mr. Hearing Officer, Mr. Chairman, members of the
10 Commission, Amigos Bravos' prefiled proposed changes,
11 prefiled written testimony submitted with our notice of
12 intent to submit technical testimony and our prefiled
13 rebuttal testimony and all of the exhibits associated
14 with those prefiled testimony, which are Exhibits A
15 through L -- no. I'm sorry. I'm getting confused.

16 I'll just say simply all of the exhibits
17 provided with the prefiled notice of intent and rebuttal
18 testimony have been exhibit -- admitted.

19 With regard to the Monday filing, there is a
20 pending motion for reconsideration regarding Section III
21 of that Monday filing. And to be clear, that was
22 Monday, October 12.

23 With regard to the exhibits that were also
24 associated with that, Exhibit L, which pertains to
25 mussels, was, in fact, admitted into the record.

1 Exhibit K, which was the variance procedure,
2 is essentially moot because it was already admitted as
3 Exhibit C-2, attached to the San Juan Water Commission's
4 testimony.

5 And Exhibit M, the Carys report, has been
6 precluded.

7 MR. CHAVEZ: Is that clear?

8 I would say Exhibits A through J that were
9 prefiled are admitted.

10 THE REPORTER: Thank you.

11 MR. SCHLENKER-GOODRICH: And Exhibit L.

12 MR. CHAVEZ: Okay. Thank you.

13 You may proceed.

14 MR. VERHEUL: Thank you.

15 CROSS EXAMINATION

16 BY MR. VERHEUL:

17 MR. VERHEUL: Good afternoon, Dr. Gundersen.

18 MR. GUNDERSEN: Hello.

19 MR. VERHEUL: I only have a few questions.

20 You criticized a paper in your verbal
21 testimony today -- or I should say a manuscript, I
22 believe it was the Kimball manuscript; is that right?

23 MR. GUNDERSEN: Correct.

24 MR. VERHEUL: And you criticized it in part
25 due to its lack of peer review; is that correct?

1 MR. GUNDERSEN: Correct.

2 MR. VERHEUL: Would you say that peer review
3 is an important component of scientific credibility?

4 MR. GUNDERSEN: Yeah, in my opinion. Yes.

5 MR. VERHEUL: Isn't it true that the 1988 EPA
6 guidance on aluminum that Amigos Bravos would prefer the
7 state return to -- isn't it true that that guidance also
8 utilizes that same Kimball manuscript?

9 MR. GUNDERSEN: Yes. And that's kind of my
10 point, though, was, okay, we're reevaluating the
11 criteria, perhaps putting together hardness-based
12 criteria, going back and looking at all the studies.
13 How did they miss that, I guess, is my comment.

14 MR. VERHEUL: Okay.

15 So, then, since you brought it up, EPA's --
16 EPA's reevaluation I think that they're in the process
17 of doing right now of -- of aluminum criteria -- does --
18 does what they're doing right now, that work -- does
19 that include a hardness-based component?

20 MR. GUNDERSEN: My understanding is they're
21 looking at a biotic ligand model which would incorporate
22 a variety of water quality parameters, including
23 dissolved carbon, pH, temperature and hardness, I
24 believe.

25 MR. VERHEUL: So hardness is one of those.

1 MR. GUNDERSEN: I believe so.

2 MR. VERHEUL: So the answer is yes, it does
3 include a hardness-based component?

4 MR. GUNDERSEN: They're looking at it.

5 MR. VERHEUL: Okay.

6 Would a reversion to the 1988 EPA guidance --
7 would that address your concerns about higher
8 temperatures enhancing the toxicity of aluminum?

9 MR. GUNDERSEN: It would more than the current
10 criteria.

11 MR. VERHEUL: Is it true that at low hardness,
12 that the current criteria that we have in New Mexico for
13 aluminum -- those current standards are actually more
14 protective of aquatic life than a reversion to the 1988
15 EPA --

16 MR. GUNDERSEN: There's that one single point
17 where that is true, and I believe it is for the chronic
18 value at a hardness of 25. Other than that, that's not
19 true.

20 MR. VERHEUL: Okay.

21 MR. GUNDERSEN: So just one instance.

22 MR. VERHEUL: Are you aware that more than
23 half the water bodies in New Mexico are characterized as
24 having low hardness?

25 MR. GUNDERSEN: What do you -- define low

1 hardness for me.

2 MR. VERHEUL: I don't have a definition for
3 that.

4 MR. GUNDERSEN: Yeah. So I don't know.

5 MR. VERHEUL: What would you consider low
6 hardness?

7 MR. GUNDERSEN: Well, I'm just trying to
8 understand what you're referring to --

9 MR. VERHEUL: I understand --

10 MR. GUNDERSEN: -- by low hardness.

11 Less than 20? Less than 10? Less than 30?

12 Generally, you know, 30 or lower I consider
13 you getting down there in the low hardness range.

14 MR. VERHEUL: Okay.

15 Getting back to peer review, one of the
16 studies that you cite in your work -- I believe it's
17 Stubblefield, et al., 2012 --

18 MR. GUNDERSEN: Um-hum.

19 MR. VERHEUL: -- isn't that an abstract of a
20 conference paper?

21 MR. GUNDERSEN: That is correct.

22 MR. VERHEUL: Isn't it true that abstracts of
23 conference papers do not undergo peer review?

24 MR. GUNDERSEN: Not what I would consider a
25 rigorous peer review. The abstracts are accepted for

1 presentation at the conference. And it was just more
2 personal communication between me and Dr. Stubblefield
3 about some work that I believe Dr. Gensemer is part of
4 that work, too. Ultimately that will be published.

5 MR. VERHEUL: Okay.

6 But at this point, it's not published --

7 MR. GUNDERSEN: Correct.

8 MR. VERHEUL: -- in a peer-reviewed journal.

9 MR. GUNDERSEN: Correct.

10 MR. HUTCHINSON: Mr. Hearing Officer, just for
11 a second.

12 The microphone that picks you up is not the
13 handheld. It is the one --

14 MR. GUNDERSEN: Oh. And I shouldn't be
15 looking at him.

16 MR. HUTCHINSON: Well, you should be leaning a
17 little bit closer to that --

18 MR. GUNDERSEN: Yeah. I get you. I'll try to
19 look around.

20 MR. VERHEUL: I won't be offended if you're
21 not looking at me --

22 MR. GUNDERSEN: Okay.

23 MR. VERHEUL: -- when you're answering.

24 MR. GUNDERSEN: All right. There we go.

25 MR. VERHEUL: I understand you worked on the

1 toxicity of aluminum on aquatic life back during your
2 time as a PhD candidate; is that right?

3 MR. GUNDERSEN: Correct.

4 MR. VERHEUL: Is it true that you have not
5 studied the toxicity of aluminum on aquatic life since
6 1995?

7 MR. GUNDERSEN: True, yeah, pretty much true.

8 MR. VERHEUL: You've compared -- in your
9 testimony today, you've compared New Mexico's aluminum
10 standard with the aluminum standards in various other
11 states such as Colorado; is that right?

12 MR. GUNDERSEN: Correct.

13 MR. VERHEUL: And I believe it was your
14 testimony today and also in your written prefiled
15 testimony that New Mexico has the least stringent
16 aluminum standard in the country; is that right?

17 MR. GUNDERSEN: Correct.

18 MR. VERHEUL: Are you aware of the EPA
19 repository that contains all states' water quality
20 standards?

21 MR. GUNDERSEN: I know of it.

22 MR. VERHEUL: You know of it.

23 MR. GUNDERSEN: Yeah.

24 MR. VERHEUL: Have you reviewed that?

25 MR. GUNDERSEN: I have not.

1 MR. VERHEUL: Are you aware that there are 24
2 states that don't have an aluminum standard?

3 MR. GUNDERSEN: I'm aware that -- I believe
4 that Oregon is one of them.

5 MR. SCHLENKER-GOODRICH: Objection, only
6 because Dr. Gundersen's testimony said that of the
7 aluminum criteria that are -- have been promulgated he
8 did not purport to reach out to every single state.

9 MR. CHAVEZ: I'm going to allow the question.

10 MR. SCHLENKER-GOODRICH: Only with that
11 clarification, then.

12 MR. VERHEUL: Yeah. I believe the question
13 was asked and Dr. Gundersen answered.

14 But just to clarify, you're aware that there
15 are 24 states without an aluminum standard.

16 MR. GUNDERSEN: I'm aware there are states
17 without aluminum standards. Yes.

18 MR. VERHEUL: If I said there were 24 --

19 MR. GUNDERSEN: I would believe you.

20 MR. VERHEUL: Okay.

21 I have no further questions.

22 MR. CHAVEZ: Thank you.

23 San Juan?

24 MS. MCCALEB: I have no questions.

25 MR. CHAVEZ: Thank you, ma'am.

1 Chevron.

2 MR. ROSE: I can't pass up the opportunity so
3 I guess I need to.

4 MR. SCHLENKER-GOODRICH: I would note for the
5 record I am very surprised.

6 MR. ROSE: I know you're shocked and dismayed,
7 I can tell.

8 Thank you, Mr. Hearing Officer.

9 For the record, my name is Louis Rose. I'm an
10 attorney with Montgomery & Andrews here in Santa Fe,
11 representing Chevron Mining.

12 CROSS EXAMINATION

13 BY MR. ROSE:

14 MR. ROSE: And just a couple questions. I'll
15 start with Ms. Conn.

16 I think you testified in your direct exam
17 concerning the Amigos Bravos participation in the 2009
18 triennial review, did you not?

19 MS. CONN: Oh, yes. I thought you were
20 talking about my qualifications. But yeah.

21 MR. ROSE: No, no, no. I'm not going to go
22 there.

23 And my recollection was, in fact, you were one
24 of the witnesses for Amigos Bravos, as was Erik, in that
25 proceeding, correct?

1 MS. CONN: Correct.

2 MR. ROSE: Did Amigos Bravos file any
3 objections to either Chevron's or Los Alamos' proposed
4 changes to the aluminum standards?

5 MS. CONN: I don't think we provided testimony
6 or proposed or -- provided testimony and objection. I
7 do believe that we commented against it, if I'm
8 remembering correctly. I'm not sure, though, at this
9 point.

10 MR. ROSE: And once the standard was adopted
11 by the Commission, I take it Amigos Bravos didn't appeal
12 that standard to the Court of Appeals, did they?

13 MS. CONN: No.

14 MR. ROSE: With respect to the standards
15 review by EPA, did Amigos Bravos comment on EPA's
16 consideration of New Mexico's standards for approval?

17 MS. CONN: You know, I -- we did comment on
18 EPA -- we did comment to EPA on the process. I don't
19 think we commented on the aluminum criteria
20 specifically, though I'd have to go back to make sure
21 what exactly we brought up in those comments to EPA.

22 MR. ROSE: And I take it you did not appeal
23 EPA's approval.

24 MS. CONN: No. We did not appeal EPA's
25 approval. No.

1 MR. ROSE: Okay.

2 And you haven't asked EPA to reconsider the
3 approval or anything like that, have you?

4 MS. CONN: No, not of the -- no.

5 MR. ROSE: And correct me if I'm wrong,
6 it's -- with EPA's approval of the standard, it isn't
7 just the New Mexico standards approved, it's my
8 understanding, and correct me, that then it becomes the
9 federal standard for New Mexico, and becomes an
10 EPA-approved standard? It is an EPA standard in New
11 Mexico, is it not?

12 MS. CONN: It is the standard that EPA uses
13 to -- when they're drafting NPDES permits and -- for
14 Clean Water Act purposes.

15 MR. ROSE: Speaking of NPDES permits -- nice
16 segue.

17 MS. CONN: You're welcome.

18 MR. ROSE: Yeah. We didn't set it up this
19 way.

20 In terms of Amigos Bravos' proposed change to
21 the existing standard, that is going with the EPA
22 criteria, did you evaluate how many NPDES permits the
23 change in the standard might affect?

24 MS. CONN: No.

25 MR. ROSE: So you have no testimony before

1 this Commission as to how many municipalities', how many
2 industrial facilities' discharge permits or NPDES
3 permits might be affected by this change.

4 MS. CONN: No.

5 MR. ROSE: Okay.

6 Thank you.

7 Dr. Gundersen, just a couple quick questions
8 for you.

9 In your oral testimony and your written
10 testimony, you've referred substantially -- or a
11 substantial number of occasions to the GEI study, as you
12 referred to it.

13 And I believe that's the GEI report that was
14 submitted to this Commission during the last triennial?

15 MR. GUNDERSEN: Essentially, yeah. But I'm
16 aware there is a report to Colorado, I believe there's a
17 West Virginia one. And I've read them all. So
18 sometimes --

19 MR. ROSE: Probably more than --

20 MR. GUNDERSEN: -- I'm not sure which report I
21 may even be talking about at some point. Yeah.

22 MR. ROSE: Well, and I haven't read the West
23 Virginia or Colorado ones so kudos to you.

24 But what I was getting at is in terms of this
25 Commission's consideration of the standard in 2009, were

1 you aware of testimony -- other proposals before the
2 Commission on aluminum? For example, Los Alamos'
3 proposed changes to the aluminum standard?

4 MR. GUNDERSEN: I was not, no.

5 MR. ROSE: Were you provided or did you review
6 the technical testimony in support of Los Alamos' and
7 Chevron's proposed changes to the aluminum standard?

8 MR. GUNDERSEN: In 2009?

9 MR. ROSE: Yes.

10 MR. GUNDERSEN: No.

11 MR. ROSE: Were you aware of the Department's
12 testimony concerning those standards?

13 MR. GUNDERSEN: No, I wasn't. Essentially, I
14 was brought into the picture fairly relatively recently.
15 So I'll make that clear. Yeah.

16 MR. ROSE: Okay.

17 And were you given in terms of review for this
18 hearing a copy of the Hearing Officer's report to this
19 Commission recommending the proposed aluminum standard?

20 MR. GUNDERSEN: I believe I was, but I have
21 looked at a lot of documents. So I'll give you my
22 answer like that.

23 MR. ROSE: No. That's fine.

24 And that's all the questions I have.

25 Thank you.

1 MR. CHAVEZ: Thank you very much.

2 We'd like to now go to Freeport.

3 MS. CHAPPELLE: We have no questions of the
4 witness, Your Honor --

5 MR. CHAVEZ: Thank you.

6 MS. CHAPPELLE: -- on this point.

7 MR. CHAVEZ: At this point, I would like to
8 move to the Commission for questions.

9 Mr. Chairman.

10 MR. DOMINGUEZ: Thank you, Mr. Hearing
11 Officer.

12 We will now go to the Commission for
13 questions.

14 CROSS EXAMINATION

15 BY THE COMMISSION:

16 MR. HUTCHINSON: Want to start on that side
17 first?

18 MR. PATTISON: I have no questions.

19 MR. DOMINGUEZ: Commissioner Hutchinson.

20 MR. HUTCHINSON: Just I can't get off of it.

21 Dr. Gundersen, good afternoon.

22 MR. GUNDERSEN: Good afternoon.

23 MR. HUTCHINSON: Would the elevation of
24 protective standards result in less available aluminum
25 in New Mexico stream segments?

1 MR. GUNDERSEN: The elevation of aluminum
2 standards -- can you give me --

3 MR. HUTCHINSON: The protective standards.
4 In other words, go from the hardness to what Amigos
5 Bravos is proposing.

6 Is that going to result in less available
7 aluminum to our --

8 MR. GUNDERSEN: Oh, okay. I understand your
9 question now.

10 Reverting back to the original EPA criteria
11 would, in my opinion. Yes.

12 MR. HUTCHINSON: And, Ms. Conn, you did
13 comment on Exhibit L in your oral testimony here.

14 Who compiled that list?

15 MS. CONN: That was compiled by a combination
16 of myself and our board member, Dr. Jon -- I don't
17 actually know if he's a doctor -- Jon Klingel. He's a
18 biologist. And it was compiled on the web site. The
19 publicly available web site of the Department of Game
20 and Fish has online all of the species in the state.

21 MR. HUTCHINSON: And did that web site provide
22 locations that you might find these various species and
23 mussels?

24 MS. CONN: It does provide the locations, what
25 counties they're found in.

1 MR. HUTCHINSON: And why didn't you include
2 that information in the listing?

3 MS. CONN: I think we wanted to -- to keep
4 the -- I think these are statewide standards, these are
5 standards that apply statewide, and so we thought the
6 important information was that they're found in the
7 state.

8 And what counties they're found in, I'm not
9 sure, you know -- while I guess that's interesting, and
10 I think that Jon Klingel in his public comments gave
11 some of that information, about there are 17 -- we can
12 go back and look in the record. I think he said 17
13 counties that they're found in.

14 And so that information is readily available.
15 We just -- we didn't provide it here. We didn't want to
16 create a huge supplemental filing. We wanted -- our
17 main point was to show that mussels do exist here in the
18 state.

19 MR. HUTCHINSON: And wouldn't it have been
20 more informative for the Commission to have stream
21 segments also available for those various species?

22 MS. CONN: You know, I'm not sure if the
23 database includes that. But yes, that probably would be
24 useful to the Commission.

25 MR. HUTCHINSON: So you wouldn't be able to

1 tell the Commission if all of those mussels in the
2 exhibit are exposed to high levels of aluminum?

3 MS. CONN: No.

4 MR. HUTCHINSON: Thank you.

5 That's all I have, Mr. Chairman.

6 MR. DOMINGUEZ: Commissioner Longworth.

7 MR. LONGWORTH: Hopefully, I just have a
8 couple quick questions.

9 Going to the table -- let's see. It's
10 Dr. Gundersen's exhibit -- Table 1.

11 MR. SCHLENKER-GOODRICH: I believe it's page 5
12 of Dr. Gundersen's direct written testimony?

13 MR. LONGWORTH: Yes, sir.

14 I just -- I'm actually -- actually, just to
15 help me out in this to understand some of the
16 differences here.

17 So the current New Mexico standard is -- in
18 the total recoverable aluminum, it appears that is more
19 or less the same standard for acute as it is in
20 Colorado; is that correct?

21 MR. GUNDERSEN: That's correct, yes. It's the
22 chronic that's different.

23 MR. LONGWORTH: And so what did Colorado do to
24 establish the chronic that's -- yeah. How did they
25 change it?

1 MR. GUNDERSEN: In Dr. Gensemer's rebuttal,
2 I -- apparently, he has a little more information on
3 that. When he's up here, maybe you can ask him. But I
4 don't know specifically what happened and how it got
5 changed. But he -- I think he might have more
6 information for you on that.

7 MR. LONGWORTH: Okay. Thanks.

8 And it's total recoverable, and -- and maybe
9 you can help me, and maybe I should ask this later --
10 we've talked a lot about West Virginia standards, and in
11 this it says proposed West -- proposed West Virginia
12 which have been withdrawn or dissolved aluminum, and it
13 has similar acute and then similar chronic.

14 MR. GUNDERSEN: Correct.

15 MR. LONGWORTH: What's the difference between
16 the dissolved aluminum standard and total recoverable
17 aluminum standard?

18 MR. GUNDERSEN: Well, a dissolved aluminum
19 standard would be less protective. Aluminum exists
20 usually in two forms when it's in water. There's a
21 portion of it that's not soluble, and then there's a
22 portion of it that's soluble.

23 Usually a small fraction of that aluminum
24 content is the soluble content, the larger bulk of it
25 usually exists as an insoluble poly -- polymorphic forms

1 that we say. So they're just looking at that small,
2 little fraction, not taking into account the total
3 aluminum in that instance.

4 I guess my -- I was perplexed that you would
5 have the same equation, yet you're now using it for
6 dissolved when the equation, at least in the two other
7 states, was derived for total recoverable. So my
8 question was even how could you even have the same
9 equation, and we're looking at two different forms of
10 aluminum?

11 I don't know what the answer to that is, by
12 the way.

13 MR. LONGWORTH: So let me make sure I
14 understood what you said.

15 So the total recoverable is the total amount
16 of aluminum that you would extract from a sample --

17 MR. GUNDERSEN: Essentially --

18 MR. LONGWORTH: -- where it's dissolved, which
19 we're really only looking at the dissolved portion. So
20 since it's a higher number, there would be -- actual
21 total recoverable would be substantially higher in the
22 West Virginia proposed standard.

23 MR. GUNDERSEN: Correct.

24 MR. LONGWORTH: Okay.

25 And so West Virginia withdrew that standard,

1 right? And that's a lot of information we've been
2 talking about.

3 MR. GUNDERSEN: Correct.

4 MR. LONGWORTH: And so they're not really the
5 same kind of standards, it's just the same formula, West
6 Virginia applied it in a different manner, using
7 dissolved versus total.

8 MR. GUNDERSEN: Yes. That's my understanding.
9 Yes.

10 MR. LONGWORTH: Okay. Great.

11 That's all I have.

12 Thank you.

13 MR. DOMINGUEZ: Commissioner Dawson.

14 MR. DAWSON: Thank you, Mr. Chairman.

15 Mr. Gundersen, in your testimony, it says
16 you're aware of USEPA's plans for updating the national
17 AWQC for aluminum and their consideration for a
18 BLM-based approach to incorporate the effects of pH,
19 dissolved organic carbon, hardness and temperature on
20 aluminum toxicity, in an updated national criterion, and
21 it goes on further and says that will be updated.

22 Is that supposed to be updated this year? Are
23 they working on that? And do you know the status of
24 that, what's going on with their study?

25 MR. GUNDERSEN: I'm somewhat familiar. It

1 was -- an update of it was presented, I believe, this
2 fall at a local -- not local -- national toxicology
3 meeting, and my understanding is that they're a little
4 behind on progressing with developing that model.

5 But yeah. I'm probably not as connected to
6 that. Again, I believe that Dr. Gensemer can probably
7 give you more precise numbers and timelines throughout
8 than I could.

9 MR. DAWSON: Okay.

10 MR. GUNDERSEN: But I know Diana Eignor, I
11 believe it was, presented that at the SETAC meeting. I
12 thought it was -- actually, it was last fall. That's
13 right. We've been doing this a while now, haven't we?
14 Yeah. That was last fall, I believe.

15 MR. DAWSON: Okay. That's all the questions I
16 have.

17 Thank you.

18 MR. DOMINGUEZ: Commissioner Pattison.

19 MR. PATTISON: Thank you, Mr. Chairman.

20 Are there mussels present in playa lakes in
21 New Mexico?

22 MR. GUNDERSEN: I do not know.

23 MS. CONN: Mr. Chairman, Commissioner
24 Pattison, I do -- I don't know the answer to that
25 question either. It would be easy to look on the BISON

1 database.

2 MR. PATTISON: And is there an aluminum
3 problem in playa lakes in New Mexico?

4 MR. GUNDERSEN: Again, personally I don't
5 know.

6 MR. PATTISON: Thank you, Mr. Chairman.

7 MR. DOMINGUEZ: Okay.

8 Okay. A couple of quick questions.

9 Dr. Gundersen, just so maybe you can help me
10 understand parts of this better. So a follow-up
11 question to an earlier question you responded to from
12 the Environment Department.

13 If a state doesn't have an aluminum standard,
14 does that mean that there's no protective measures for
15 aquatic species as it relates to aluminum?

16 MR. GUNDERSEN: You know, the regulatory
17 issues I'm not real familiar with, and I don't know if
18 it reverts back to the EPA criteria or not in that
19 situation. But yeah. I'm not really a regulatory
20 toxicologist. I don't know how that plays out.

21 MR. DOMINGUEZ: And maybe I'll look to
22 Ms. Conn, if she could help me.

23 MS. CONN: Mr. Chairman, could you repeat your
24 question?

25 MR. DOMINGUEZ: If a state doesn't have an

1 aluminum standard, does that mean that there's not a
2 protective measure as it relates to aluminum?

3 MS. CONN: Mr. Chairman --

4 MR. DOMINGUEZ: This goes -- this goes back to
5 the point on 24 states not having an aluminum standard.

6 MS. CONN: Mr. Chairman, members of the
7 Commission, I am not certain about that. I would guess
8 if there was a reasonable potential, but I'm not sure
9 what that reasonable potential would be based on if
10 there wasn't a state standard. I'm not sure if EPA uses
11 their national criteria for reasonable potential
12 analyses when doing NPDES permits.

13 So I'm uncertain of that.

14 MR. DOMINGUEZ: Okay. I was just trying to
15 explore to help us look at where is New Mexico as far as
16 our protective nature. So thank you for that one.

17 Ms. Conn, just a quick follow-up.

18 I notice you have previously in one of your
19 responses and earlier during counsel's questioning --
20 two different times you guys have referred to Jon
21 Klingel's public testimony.

22 Is his public testimony technical testimony or
23 his personal opinions?

24 MS. CONN: It was -- it was public testimony,
25 Mr. Chair. Public testimony. I referred because I did

1 use his assistance in gathering the -- the exhibit from
2 the -- the web site, the state's web site.

3 MR. DOMINGUEZ: Okay. Thank you.

4 That's all the questions I have.

5 No other Commission questions, Mr. Hearing
6 Officer.

7 MR. CHAVEZ: Thank you, Mr. Chairman, members
8 of the Commission.

9 At this point, I want to go to the public and
10 see if there's any cross-examination for these
11 witnesses.

12 Seeing none, so what I want to do, for
13 clarity -- are you now going to defer to Chevron for
14 presentation of their direct case, or are you going to
15 finish your case altogether?

16 MR. SCHLENKER-GOODRICH: No. I believe --
17 well, I'll defer to Lou and what Lou wants to do, with
18 the exception that I do have one redirect question.

19 MR. ROSE: Yeah. Other than redirect, I think
20 we were going to go to my expert who then can only
21 testify today. But --

22 MR. CHAVEZ: Thank you.

23 And my apologies.

24 MR. SCHLENKER-GOODRICH: And that works for
25 us.

1 MR. CHAVEZ: Yes.

2 Redirect.

3 REDIRECT EXAMINATION

4 BY MR. SCHLENKER-GOODRICH:

5 MR. SCHLENKER-GOODRICH: Dr. Gundersen, I have
6 a single question on redirect.

7 Commissioner Longworth was asking about what
8 had happened in EPA relative to total dissolved and
9 total recoverable.

10 If I could have you recollect Exhibit 8 to
11 Dr. Gensemer's rebuttal testimony, that was the EPA
12 letter that was submitted to EPA -- or submitted -- I'm
13 sorry -- to West Virginia.

14 MR. GUNDERSEN: Uh-huh.

15 MR. SCHLENKER-GOODRICH: In that letter, if I
16 remember your testimony correct, EPA expressed concerns
17 that pH was, quote, unquote, a critical factor, correct?

18 MR. GUNDERSEN: Correct.

19 MR. SCHLENKER-GOODRICH: And EPA also
20 expressed concerns that the hardness-based aluminum
21 criteria -- they had concerns about toxicity to mussels,
22 and it wasn't properly accounted for; is that correct?

23 MR. GUNDERSEN: Correct.

24 MR. SCHLENKER-GOODRICH: Were those concerns
25 contingent on distinctions between total dissolved and

1 total recoverable aluminum, or were they concerns that
2 were concerns whether or not it was total dissolved or
3 total recoverable?

4 MR. GUNDERSEN: You mean their concerns with
5 the proposed West Virginia criteria meaning that it was
6 dissolved versus total recoverable?

7 MR. SCHLENKER-GOODRICH: Yeah.

8 Were the concerns about pH and toxicity to
9 mussels dependent on the distinction between total
10 dissolved and total recoverable?

11 MR. GUNDERSEN: I'm not sure. Having read
12 that, I'm not sure if they -- I talked to -- I had one
13 personal communication with somebody in EPA about it,
14 and she expressed that there were concerns that they
15 were using dissolved, but that's the extent of my
16 knowledge on that.

17 MR. SCHLENKER-GOODRICH: But fundamentally,
18 EPA did express concerns with a hardness-based criteria
19 relative to mussels and lack of consideration of pH?

20 MR. GUNDERSEN: Correct.

21 MR. SCHLENKER-GOODRICH: No further questions.

22 MR. CHAVEZ: Thank you.

23 So at this time, let's bring up Chevron for
24 their direct case, and most likely tomorrow morning the
25 conclusion of your case.

1 Correct?

2 (Discussion off the record.)

3 MR. HUTCHINSON: Mr. Rose, there is a bonus
4 for speed.

5 MR. ROSE: Well, I talked to
6 Mr. Schlenker-Goodrich, we could speed this up
7 considerably if he withdrew his proposal, but he was
8 unwilling to do that. So --

9 MR. SCHLENKER-GOODRICH: I did give it due
10 consideration.

11 MR. ROSE: Do you want to swear him in?

12 ROBERT W. GENSEMER

13 having been first duly sworn or affirmed, was
14 examined and testified in direct and rebuttal as
15 follows:

16 DIRECT EXAMINATION

17 BY MR. ROSE:

18 Q. Could you please state your name for the
19 record.

20 A. Robert Gensemer.

21 Q. And with whom are you employed?

22 A. GEI Consultants.

23 Q. And in what capacity are you employed?

24 A. I'm a vice-president and senior
25 ecotoxicologist with GEI, and have been in this field of

1 aquatic toxicology and risk assessment for about 30
2 years, in both academic and consulting sectors.

3 Q. Would you give us a brief description of your
4 educational and work background.

5 A. Sure. I received my PhD in biological
6 sciences at University of Michigan in 1989.

7 About the first half of my career, I was in
8 the academic sector as a research scientist and
9 assistant professor at Boston University, after which I
10 transitioned over to the private sector as a
11 toxicologist -- a consulting toxicologist, back around
12 16 years ago, and ever since I've been involved in that.

13 As I've been in that field, my primary areas
14 of expertise have become toxicology of metals to aquatic
15 organisms -- actually, that's been my primary focus ever
16 since my doctoral work -- specifically working on the
17 toxicology of metals to aquatic organisms and how these
18 data are used to develop and modify ambient water
19 quality criteria for protection of aquatic life
20 according to EPA guidelines.

21 So with respect to metals toxicology and the
22 kind of work I've done to support criteria, most of my
23 experience is in conducting or reviewing primary
24 laboratory research studies to evaluate the influence of
25 how water quality characteristics influence organism

1 toxicity, and these are the typical constituents you've
2 heard about today and throughout this hearing, such as
3 hardness, alkalinity, dissolved organic carbon and so
4 on, and how these influence both the bioavailability and
5 toxicity of metals to aquatic organisms.

6 Most of my academic and private experience in
7 this respect are with aluminum and copper. But for
8 aluminum, my expertise highlights -- expertise
9 highlights are it was the subject of my dissertation
10 research and several related publications coming out of
11 that process.

12 I started picking up aluminum again a few
13 years later, working as a primary investigator for
14 several projects within the Arid West Water Quality
15 Research Project, which you've heard mentioned a couple
16 times in this hearing. It was a program administered
17 out of Pima County, Arizona a number of years ago.

18 I was collaborating with Mr. Steve Canton, who
19 became part of GEI, as did I, a few years later, in
20 which we collaborated on the development of the first
21 hardness-based aluminum criteria concept as part of the
22 Arid West Water Quality Research Project. That was back
23 in the mid-2000s.

24 My experience of aluminum continued. I've
25 been an expert witness for proposals to update aluminum

1 standards, first for aluminum here at the last triennial
2 review in December, 2009, Colorado a year later for
3 their basic standards hearing in 2010, and helped
4 prepare the technical basis of a proposal for the West
5 Virginia rulemaking with a report dated 2011 for the
6 2013 rulemaking, but my involvement was limited only to
7 preparation of the expert report. I was not at all
8 involved in any of the proceedings related to that
9 proposal.

10 Most recently, since about 2008, I've been a
11 member of an expert science team conducting new
12 scientific studies to support -- approximately to
13 support registration of aluminum in Europe under the
14 REACH program. That's capital R-E-A-C-H, which, for
15 those who are not familiar, that acronym stands for the
16 Registration, Evaluation, Authorization and Restriction
17 of Chemicals.

18 And while that's a European program that you
19 might think has little value to New Mexico, the kinds of
20 data collection activities that have been prompted by
21 the REACH program over the last decade have generated a
22 substantial amount of new toxicity studies for a lot of
23 constituents, metals, organics and including aluminum.

24 And so this team just happened to be the one
25 that funded a lot of work. And the way particularly the

1 metals consortia under REACH have operated is to plan
2 the toxicity studies not just to be relevant for REACH
3 registration in Europe, but also to assist the EPA in
4 updating their aquatic life guidelines.

5 And so the kinds of studies that we designed
6 and conducted were specifically for a dual purpose, both
7 in Europe and United States.

8 Q. And could you discuss your role -- you
9 mentioned you were involved in the last triennial
10 review.

11 Could you discuss your role in that triennial
12 review and the aluminum proposal?

13 A. Yes. I will. I was a testifying expert
14 witness in the 2009 New Mexico triennial review. I was
15 working on behalf of Los Alamos National Security.

16 The original direct testimony report that I
17 prepared was conducted as part of my previous firm,
18 Parametrix. And so some of the citations you might see
19 to that report is Parametrix 2009 or LANS 2009. That's
20 the same report and exhibits that go along with that.

21 And then -- so that was a -- basically a
22 parallel proposal alongside Mr. Steven Canton, who was
23 the expert witness for Chevron Mining at the same
24 triennial hearing.

25 Q. Dr. Gensemer, did you prepare direct testimony

1 for this hearing?

2 A. Yes, I did.

3 Q. And do you adopt that testimony as your direct
4 testimony in this proceeding?

5 A. Yes, I do.

6 Q. Do you have any corrections or -- to that
7 testimony?

8 A. Two small typographical errors --

9 Q. In the direct.

10 A. -- in the rebuttal testimony.

11 Q. Just the direct at this point.

12 A. Nothing in the direct.

13 MR. ROSE: We would offer Dr. Gensemer's
14 direct testimony and the exhibits into evidence at this
15 time.

16 MR. CHAVEZ: Any objection?

17 MS. CHAPPELLE: None.

18 MR. CHAVEZ: Okay. Thank you.

19 I'll allow that into the record as Exhibit --
20 do you have a number on that, Lou?

21 MR. ROSE: No. It's in the record. So --

22 MR. CHAVEZ: -- as Chevron's Number 1.

23 MR. ROSE: Okay. Thank you.

24 (Chevron Exhibits 1 through 7 admitted into
25 evidence.)

1 Q. (BY MR. ROSE) Dr. Gensemer, could you please
2 summarize your direct testimony for the Commission,
3 please.

4 A. Certainly. In my opinion, and as expressed in
5 my prefiled direct and rebuttal testimonies, there is no
6 technical basis to support Amigos Bravos' contention
7 that the hardness-based criteria adopted by the New
8 Mexico Water Quality Control Commission in the 2009
9 triennial review would not be protective of aquatic life
10 in New Mexico.

11 These hardness-based criteria were derived
12 according to EPA guidance. And I specifically refer to
13 the 1985 guidelines for derivation of aquatic life
14 criteria, sometimes referred to as Stephan, et al.,
15 1985.

16 And so the levels of aquatic life protection
17 afforded by these criteria are completely consistent
18 with the goals of the Clean Water Act and the New Mexico
19 Water Quality Act.

20 These criteria were thoroughly reviewed by
21 NMED and USEPA during the last triennial review,
22 achieving approval by EPA in a 2012 Record of Decision
23 for protection of aquatic life in New Mexico waters
24 within the pH range of 6.5 to 9.0.

25 Amigos Bravos was also a party to this 2009

1 triennial review and did not provide any comments on
2 these criteria at the time. And I think it's important
3 for the Commission to note that all the comments and
4 virtually all the comments raised in their direct
5 testimony for this hearing could have been made using
6 information presented and available at the time of the
7 last hearing.

8 In my opinion, returning to the 1988 304(a)
9 ambient water quality criteria for aluminum as the basis
10 for New Mexico's water quality standards for aluminum
11 would represent a retreat to an outdated scientific
12 approach that does not address the importance influence
13 on hardness on aluminum toxicity in freshwaters.

14 It's important to note that as a member of
15 this REACH research consortium that I mentioned
16 previously I'm keenly aware that the science regarding
17 aluminum toxicology and the influence of water quality
18 factors other than hardness continues to evolve, and
19 that EPA is considering these data in upcoming updates
20 to the national recommended criteria for aluminum.

21 However, in my opinion, this in no way
22 invalidates the important effects of hardness. And so
23 both myself and NMED in their -- I've noticed in their
24 rebuttal testimony, prefiled rebuttal, have concluded
25 that New Mexico's existing criteria are protective of

1 aquatic life in New Mexico.

2 And so, therefore, I recommend that this
3 Commission reject Amigos Bravos' proposal to repeal New
4 Mexico's hardness-based criteria and turn to the 1988
5 national recommended criteria as a basis for New
6 Mexico's water quality standards.

7 Q. Dr. Gensemer, did you prepare prefiled
8 rebuttal testimony for this proceeding?

9 A. Yes, I did.

10 Q. And do you adopt that rebuttal testimony as
11 your testimony in this case?

12 A. I do.

13 Q. Do you have any corrections or changes to that
14 testimony?

15 A. Just two small typographical errors that have
16 no substance -- technical substance and basis of my
17 testimony, but just for the record want to make sure
18 that these corrections are filed.

19 Want me to just call them out by page?

20 Q. Sure.

21 A. Okay.

22 So if we go to page 12 of the Gensemer
23 prefiled rebuttal testimony, if you go to line 9, which
24 is under Figure 1, the word at the very end of the
25 second line -- of line 9 says "with." That word should

1 actually be "without." That's the first correction.

2 The second correction is on page 20 -- page 21
3 of the Gensemer direct testimony -- rebuttal
4 testimony -- excuse me. Rebuttal. On line 2, the start
5 of that line reads "aluminate ion to the positively
6 charged gill surface." That should actually read
7 "negatively charged gill surface."

8 MR. ROSE: And with those changes, Mr. Hearing
9 Officer, we would offer -- I guess we'll mark it as
10 Chevron 2 and ask that it be admitted into evidence.

11 MR. CHAVEZ: Any objection?

12 Those are admitted as Chevron 2.

13 MR. ROSE: And that would include the exhibits
14 attached to that. I think there's one exhibit.

15 Thank you.

16 (Chevron Exhibit 2 admitted into evidence.)

17 Q. (BY MR. ROSE) Could you briefly summarize
18 your prefiled rebuttal testimony.

19 A. My prefiled rebuttal testimony was prepared
20 specifically to respond to the technical concerns raised
21 by the expert witness for Amigos Bravos, Dr. Deke
22 Gundersen. The basic themes of his prefiled direct
23 testimony were basically fourfold, much of what you just
24 heard.

25 He cited several concerns over procedures that

1 were used six years ago to derive New Mexico's
2 hardness-based criteria.

3 There was a claim that hardness has only a
4 minor effect on aluminum toxicity and may not be
5 protective at neutral or alkaline pH when compared to
6 other water quality parameters.

7 There's an observation that little data exist
8 for aluminum toxicity at pH range 8-and-a-half to 9.
9 That's the very top end of the total range that the New
10 Mexico standard encompasses, by the way.

11 And a claim that it is misleading to state
12 that hardness ameliorates or protects against toxicity
13 when studies show that only calcium ameliorates
14 toxicity.

15 And so I'd be willing to summarize some of
16 these key concerns and my basic responses to those
17 concerns, but I'll refer the Commission to the details
18 provided in my prefiled testimony.

19 So first I'll summarize some of my key
20 responses to Dr. Gundersen's concerns over the
21 procedures used to derive the New Mexico criteria.

22 As fully documented in my direct testimony,
23 our proposal for the 2009 triennial hearing provided
24 sound scientific evidence supporting development of New
25 Mexico's existing hardness-based criteria equation.

1 That was derived according to EPA guidelines, as I've
2 said previously, and that's been the subject of detailed
3 review, and multiple rounds of review, direct testimony,
4 rebuttal testimony, surrebuttal testimony, and other
5 documentation, following all the way through the Hearing
6 Officer's report and beyond.

7 This led to ultimate approval by NMED, the
8 Water Quality Control Commission and EPA in the 2012
9 Record of Decision.

10 As documented in my rebuttal testimony, I'm
11 fully aware of EPA's current efforts to evaluate updates
12 to the national criteria for aluminum and that they're
13 considering additional water quality factors such as pH
14 and dissolved organic carbon.

15 I think it's also important to note that in my
16 testimony I explained a lot of the concerns that were
17 expressed previously in Dr. Gundersen's verbal testimony
18 and written testimony. I believe it's his Table 1 on
19 page 5 of his direct testimony, if I'm correct, that
20 showed different criteria equations for different
21 reasons.

22 I provided all the detailed reasons
23 explaining, to the extent that I knew the reasons, as to
24 why there's a difference. In some cases, that involved
25 different regulatory proceedings that were not

1 necessarily technical in nature leading to differences,
2 differences in how the state dealt with the chemical
3 form, dissolved verses total recoverable.

4 There's a lot of history behind that that I
5 outlined in my rebuttal testimony. Much of this was the
6 basis of our testimony six years ago before this
7 Commission.

8 It's important to note that the Arid West
9 Water Quality Research Project equations were different
10 for a number of reasons.

11 First, those equations were based on an
12 analysis that predated the analysis for the 2009 New
13 Mexico triennial, and were based on a rereview of
14 information after that time. So there's no reason to
15 expect that a few years later we necessarily would reach
16 the same conclusion based on a re-analysis.

17 Also, one of the primary reasons we conducted
18 that study was to explore application of EPA's
19 recalculation procedure for site-specific criteria
20 modifications. Site-specific -- in New Mexico since
21 2009 has the same procedure available to them, were
22 based on differences in the aquatic assemblies in the
23 species present in a particular location. You can
24 modify the criteria to better suit what organisms
25 actually live at that site.

1 And so the differences in equation that we
2 show here at the bottom half of Dr. Gundersen's table on
3 page 5 of his direct testimony just reflect that
4 exploration. Those differences do not represent an
5 uncertainty -- scientific uncertainty in any way. That
6 is precisely the point of the study, is to explore that
7 variability, based on what species may or may not be
8 present.

9 Back to the water quality factors that EPA is
10 considering, it's important to emphasize that the data
11 that I am actually part of the program to develop
12 explore the initial influences of pH and DOC. They do
13 not invalidate the important role of hardness.

14 So it would really be a mistake to go
15 backwards to criteria that includes absolutely none of
16 these water quality factors. Hardness is still valid
17 and should be included.

18 Dr. Gundersen expressed several concerns over
19 the choices related to the inclusion or exclusion of
20 various studies. These are challenging best
21 professional judgment decisions that are always made in
22 these kinds of proceedings.

23 But it's important to remember that all of the
24 decisions that we made with respect to inclusion or
25 exclusion of any of the toxicity studies that we used

1 were thoroughly vetted by NMED, the Water Quality
2 Control Commission and EPA, as extensively documented in
3 the administrative record, leading ultimately to EPA's
4 approval.

5 Finally, as a -- as a somewhat minor technical
6 manner, I respectfully disagree with Dr. Gundersen's
7 conclusion that the mechanisms of toxicity of aluminum
8 differ under acute versus chronic exposure conditions,
9 as I believe he mentioned aluminum is unique in that it
10 affects aquatic organisms in two basic ways.

11 First, it causes an ional regulatory
12 disturbance, is what we call it. Basically, the
13 cationic metal binds to, best example, a fish gill and
14 it disrupts its ability to maintain ion balance across
15 that gill. It's an important function that can lead to
16 an adverse effect on fish.

17 Aluminum does that, has that effect just like
18 many other metals. But it also has this effect of once
19 the pH is high enough, that -- or of -- not just high
20 enough, of a certain range, that it becomes insoluble
21 forms in aluminum hydroxide solution, this white flock
22 you might see in certain conditions when this first
23 forms.

24 This can also cause toxicity by basically
25 suffocating the organism, that hydroxide is of a nature

1 that it actually binds to the gill surface and prevents
2 oxygen exchange and other gas exchange and basically
3 asphyxiates the organism.

4 So both mechanisms of toxicity actually apply
5 under acute or short-term exposure conditions, as well
6 as chronic or long-term exposure conditions. And so the
7 way of the hardness criteria that we derive expresses
8 really to some extent or implicitly expresses both
9 mechanisms of toxicity.

10 And so the concerns Dr. Gundersen raised in
11 his direct testimony in terms of what he sees as a
12 difference in those mechanisms I don't believe is valid
13 or affect the -- certainly affect the scientific
14 validity of these criteria.

15 Secondly, Dr. Gundersen claimed that hardness
16 has only a minor effect on aluminum toxicity and may not
17 be protective at neutral to alkaline pH when compared to
18 other water quality parameters.

19 It's important to note that much of the
20 evidence that Dr. Gundersen cited is a single study of
21 his own from 1994 in one of the publications from his
22 PhD dissertation. Conclusions from the single study, in
23 my opinion, do not invalidate the conclusions we reached
24 based on the analysis of many other scientific studies
25 conducted under a variety of test conditions, including

1 more hardness and pH levels than tested in his own
2 single study with one species.

3 As noted in our 2009 triennial direct
4 testimony report, while we recognize that overall there
5 is a significant effect of pH on aluminum toxicity over
6 the full range of pH in nature, we were not able to
7 derive a statistical relationship between pH and
8 toxicity within the pH range of 6.5 to 9.0, which is
9 exactly how the national criteria are expressed.

10 They are specifically limited to waters with a
11 range of pH between 6.5 and 9. And so when you just
12 limit it yourself to the studies in that range, there
13 was no pH relationship. So it's not to say pH is not
14 important. It's just that the studies we had available
15 at the time that were considered acceptable according to
16 EPA guidelines we had no mathematical way of adjusting
17 toxicity with pH.

18 Clearly, NMED and EPA agreed with this
19 reasoning, as noticed by their approval in the last
20 triennial.

21 And again, while I recognize that new
22 scientific studies of which I'm participating evaluate
23 the influence of factors other than pH, including the
24 Stubblefield, et al., presentation cited by
25 Dr. Gundersen, for which I'm the fourth author, these in

1 no way invalidate the important effects of hardness in
2 the pH range of 6.5 to 9.

3 And I'll also note that in that Stubblefield
4 presentation those studies were conducted at a pH of 6.0
5 and so do not apply to the New Mexico criteria at all.

6 Indeed, to revert to the 1988 criteria which
7 do not incorporate the influence of any water quality
8 factors is a significant step backwards scientifically
9 and could be underprotective in very soft waters and
10 thus makes no scientific sense.

11 Third, Dr. Gundersen points out that little
12 data exists for aluminum toxicity at the pH range 8.5 to
13 9.

14 And while this is a correct statement for the
15 limited upper portion of the total pH range for which
16 the New Mexico criteria apply, this does not invalidate
17 the fact that the EPA approved the New Mexico criteria
18 with full awareness of this limitation.

19 It's also important to note that Amigos
20 Bravos' own suggestion to revert back to the national
21 criteria for aluminum suffers from exactly the same data
22 limitation. Therefore, the outcome of Amigos Bravos'
23 proposed solution does no more to correct the situation
24 than the existing more scientifically reasonable
25 hardness-based aluminum criteria.

1 Finally, as both I and NMED pointed out in our
2 rebuttal testimonies, a couple of newer studies -- I
3 specifically refer to Poleo and Hytterod, 2003, Winter,
4 et al., 2005 -- exposing fish to the chemical form of
5 aluminum that predominates at pH values above 8.8 -- and
6 I specifically refer to the negatively charged -- what's
7 called the aluminate anion, A-L-U-M-I-N-A-T-E, chemical
8 formula $\text{Al}(\text{OH})_4^-$, strongly suggests that the
9 bioavailability and, as a result, toxicity of aluminate
10 is very low to aquatic organisms.

11 Therefore, there's no reason to suggest that
12 limited data at this end of the pH range means that New
13 Mexico hardness-based criteria are not protective.

14 Fourth and finally, Dr. Gundersen claims that
15 it is misleading to state that hardness ameliorates
16 toxicity when studies show that only calcium ameliorates
17 toxicity.

18 As pointed out in my own and NMED's rebuttal
19 testimonies, I believe this is not at all misleading.

20 This is because the hardness toxicity
21 relationships underlying the basis of New Mexico's
22 hardness criteria were based on empirical relationships
23 between measured water hardness and toxicity. Because
24 calcium's contribution to hardness is clearly included
25 in any empirical measurement of water hardness, any

1 effects of calcium ions on toxicity of aluminum will be
2 incorporated into that relationship.

3 I believe that concludes my summary.

4 Q. Dr. Gensemer, were you present during the oral
5 testimony from the Department on their direct case as
6 well as Dr. Gundersen's testimony here?

7 A. Yes, I was.

8 Q. Were you also here during the public
9 testimony?

10 A. Yes, I was.

11 Q. Do you have any comments or -- with respect to
12 any of the statements made in the -- in those -- in
13 those testimonies?

14 A. Probably the one comment I feel compelled to
15 comment to, because it was raised in several places, was
16 the concerns over protection of freshwater mussels that
17 were first raised by US Fish and Wildlife Service and
18 EPA in that letter that was attached as an exhibit to my
19 testimony.

20 I just want to react to that by saying that I
21 certainly note that EPA has voiced that concern, it's
22 clearly documented in that letter. But just because a
23 concern is raised and not -- does not necessarily mean
24 that a criterion derived according to EPA guidance is
25 not correct or not adequately protective of mussels.

1 To make that determination, we have to
2 actually look at these studies -- and I've not looked at
3 them in this kind of detail, just to make sure you
4 understand that. You'd have to look at these studies to
5 make sure that they're conducted with species that are
6 appropriate and allowed for use, specifically North
7 America and resident species. This is required
8 according to the '85 guidelines.

9 You'd have to find out that these studies were
10 conducted with the correct procedures and test
11 durations. You'd have to determine whether aluminum was
12 measured and all the other criteria they laid out in the
13 '85 guidelines.

14 And so without having conducted that kind of
15 an evaluation of these studies, I can't comment on
16 whether or not that concern is actually valid enough to
17 raise to the level to cause me any concern in the
18 existing criteria.

19 Q. Do you have any further comments at this time?

20 A. No, I don't.

21 MR. ROSE: That concludes our direct case,
22 Mr. Hearing Officer.

23 MR. CHAVEZ: Thank you, Mr. Rose.

24 At this point -- at this moment, I would like
25 to go to NMED for any cross-examination of this witness.

1 MR. VERHEUL: We've got no cross-examination
2 for this witness.

3 MR. CHAVEZ: Thank you, sir.

4 Ms. McCaleb.

5 MS. MCCALED: I have no questions.

6 MR. CHAVEZ: Thank you.

7 Amigos Bravos, do you have cross-examination
8 of this witness?

9 MR. SCHLENKER-GOODRICH: I do.

10 MR. CHAVEZ: Also, at this time, I'm going to
11 ask if anybody's planning on providing public comment,
12 if you can make sure you sign in right there at the
13 entrance, I would appreciate it.

14 Thank you very much.

15 You may proceed.

16 (Discussion off the record.)

17 MR. SCHLENKER-GOODRICH: Given the time, I was
18 just going to note that I was going to use my ability of
19 the New Yorker to speak fast to get through these
20 questions.

21 I will do what I can. I am very respectful
22 that we are in the third day of this.

23

24

25

CROSS EXAMINATION

BY MR. SCHLENKER-GOODRICH:

Q. Good afternoon, Dr. Gensemer.

Fundamentally pH is an important factor in determining aluminum toxicity; is that accurate?

A. By fundamentally, across all conditions, possibly, yes.

Q. Is it an important parameter?

A. Yes.

Q. Does New Mexico's hardness-based aluminum criteria account for pH as a factor?

A. Not mathematically in terms of adjusting the criteria, but the -- but the New Mexico criteria are specifically limited to a pH range of 6.5 to 9.0.

Q. I want to ask a particular question where the pH is over 7.5. How does the hardness-based criteria address aluminum toxicity where the pH is greater than 7.5?

A. It addresses the effect of hardness using the equation that's set forth in the standards.

Q. Is there -- does the hardness-based criteria risk masking aluminum toxicity effects where the pH is greater than 7.5?

A. Could you restate the question.

I'm not sure I understand.

1 Q. Where you have a pH of over 7.5, does the
2 hardness-based criteria -- is it weaker -- is it a
3 weaker tool to assess aluminum toxicity where the pH is
4 greater than 7.5?

5 A. Given the data available and our
6 interpretation of the '85 guidelines and how you derive
7 criteria on the basis of hardness, it's equally valid
8 over all pHes from 6.5 to 9.0.

9 Q. Do you believe that temperature is a factor in
10 aluminum toxicity?

11 A. That has been noted in the literature. Yes.

12 Q. Is it the case that many -- are you aware of
13 waters in New Mexico that are impaired for temperature?

14 A. I'm not directly aware of it. No.

15 Q. Did you take into account any
16 temperature-impaired waters when you were preparing the
17 2009 GEI report for the hardness-based aluminum
18 criteria?

19 A. No. As per EPA guidelines, it's based on
20 laboratory toxicity information and criteria derived
21 according to those guidelines. It is strictly
22 laboratory toxicity data.

23 Q. So does the fact that it doesn't -- that the
24 standard does not account for -- how does the
25 hardness-based aluminum criteria account for

1 temperature?

2 A. There's no explicit accounting for temperature
3 in that equation. It's just based on the kinds of
4 toxicity tests that were conducted to -- that we would
5 include in the criteria calculation. And so to some
6 extent, it's blind to temperature specifically for that
7 criteria calculation.

8 Q. Did you say it was blind to temperature?

9 A. There's just no adjustment based on
10 temperature. There was no analysis done to effect for
11 that. But the way toxicity -- standard toxicity tests
12 are conducted, they're generally conducted at a similar
13 temperature anyway. So we would not anticipate seeing
14 any temperature effects on the laboratory data we used.

15 Q. Would that pose a problem for New Mexico
16 waters that are impaired for temperature?

17 A. Until or unless a criteria derivation solution
18 is offered that determines whether or not temperature
19 is, first and foremost, important enough to
20 mathematically adjust the criteria, and, secondly,
21 whatever that adjustment is, I can't say.

22 Q. So that seems to go more to the derivation of
23 the calculations that you're saying that there aren't
24 studies sufficient to build in temperature into that
25 equation; is that accurate?

1 A. At the time, that was the case. Correct.

2 Q. But nonetheless, is there a concern, given
3 those lack of studies, that aluminum -- that there may
4 be increased aluminum toxicity to aquatics in
5 temperature-impaired waters?

6 A. You know, a difficult question to answer in
7 terms of, you know, all I can really directly refer to,
8 again, is how the laboratory-based criteria calculation
9 method works.

10 In terms of application to different
11 temperatures in nature, the simple answer is we don't
12 know exactly how well that goes until or unless we
13 determine it's important enough to adjust the criteria
14 and see how that works in nature. But right now there's
15 no adjustment made.

16 Q. Would it be accurate to therefore say that the
17 hardness-based criteria -- you can't determine whether
18 it's substantially protective of aquatic species in
19 temperature-impaired waters, given the lack of
20 literature?

21 A. I'm not sure it's correct to say -- well, the
22 lack of literature at the time in terms of being able to
23 see enough of a temperature range to do that analysis,
24 again, we just don't know how much, in fact, that is
25 good or bad.

1 Q. New Mexico's current hardness-based aluminum
2 standard, is this -- is New Mexico's -- forgive me.
3 Withdraw that.

4 Is New Mexico's current hardness-based
5 aluminum standard more or less protective than the
6 standard proposed by Amigos Bravos, putting aside your
7 differences of which is more credible?

8 A. I'd say a lot of that has to do with the
9 definition and interpretation of the word "protective."
10 For me as a scientist working with the derivation of
11 aquatic life criteria, what I consider to be protective
12 is specifically laid out in the 1985 guidelines -- EPA
13 guidelines for derivation of aquatic life criteria.

14 So given that in my opinion the hardness-based
15 criteria is scientifically more recent and more robust
16 than the 304(a) criteria as a basis of Amigos Bravos'
17 proposal, in my opinion, the New Mexico hardness-based
18 criteria are more what I would consider accurately
19 protective.

20 And so it's not an issue of whether the
21 concentration is higher or lower. I'd say the New
22 Mexico criteria are more correct, more accurate.

23 Q. But you're not saying whether -- so you're
24 saying that they're more scientifically accurate than
25 the 1985 or 1988 304(a) criteria?

1 A. Correct.

2 Q. But as a fundamental matter of -- if you're
3 a -- if you're a rainbow trout in a river, would you
4 rather have New Mexico's current hardness-based
5 criteria, or would you rather have the EPA-recommended
6 304(a) criteria?

7 A. I personally can't comment on the motivation
8 of a rainbow trout, but what I will say is the way the
9 science of toxicology works, it's a threshold-based
10 analysis. When you are at a concentration below what is
11 considered a safe threshold, just because you are
12 farther below that level does not make it any safer or
13 better for you.

14 So just because it's a lower number, so long
15 as it's below that criteria, in my opinion, it's equally
16 protective. You're no more protective the lower the
17 concentration goes.

18 Q. Can I refer you to Dr. Gundersen's written
19 direct testimony on page 5, the Table 1.

20 A. Yes.

21 Q. And forgive me. I took the wrong binder.

22 Rachel, will you bring me the other binder.

23 And perhaps before I get the binder, there was
24 some discussion when I -- with Dr. Gundersen about the
25 approach to the 6,000 hardness level and that that would

1 approach the LC 50 value for fish?

2 6,000 aluminum level. I'm sorry. Let me get
3 to that specifically.

4 A. Yeah. If you could help me refer to exactly
5 what you mean.

6 Q. It is page 5 of -- again, of Dr. Gundersen's
7 testimony, direct testimony, Table 1.

8 A. Yes.

9 Q. And I believe he was looking over -- if you
10 go, I think, to the hardness level -- mean hardness of
11 150, and you go down to the current New Mexico
12 standards.

13 And he had mentioned that for rainbow trout
14 that the LC 50 value was -- I believe it was
15 6,000 milligrams per liter.

16 A. Correct.

17 Q. And so this 59 -- 5,960 level, that very much
18 approaches that LC 50 value, correct?

19 A. Yes. But I will point out that Dr. Gundersen
20 did not test their exposed rainbow trout in his 96-hour
21 exposures to any hardness higher than 116 milligrams per
22 liter. So that 150 value is not a direct comparison.

23 Q. It is not a direct comparison.

24 A. No, it is not.

25 Q. So you do not agree with the notion that this

1 is approaching that LC 50 value.

2 A. No, I do not. Actually, at the test hardness,
3 the New Mexico criteria equation would return a number
4 significantly lower than that.

5 Q. The pre-2009 aluminum standard proposed by
6 Amigos Bravos is still -- in the states that do have
7 aluminum criteria is used by all states with the
8 exception of New Mexico and Colorado, correct?

9 A. Could you restate the question, please.

10 Q. I'm sorry.

11 That for all the states that have an aluminum
12 criteria, every state uses the EPA-recommended 304(a)
13 criteria except for New Mexico and Colorado.

14 A. At this time, I believe that's true.

15 Q. And the EPA-recommended national criteria for
16 aluminum is still the only EPA-recommended criteria.

17 A. At this time, that's correct.

18 Q. In your rebuttal testimony on page 6, you note
19 that the -- and I'll let you turn to that.

20 A. Thank you.

21 Q. You note that the equations used to develop
22 hardness-based aluminum criteria, quote, unquote,
23 represent the most appropriate and scientifically
24 defensible criteria based on the database available at
25 the time of the criteria proposals made in all three

1 states; is that correct?

2 A. Yes.

3 Q. Do you believe that these equations based on
4 current scientific and technical knowledge remain the
5 most appropriate and scientifically defensible criteria?

6 A. Until or unless the analysis of the new data
7 that EPA's reviewing, some of which I participated in
8 development of -- until that work is actually worked
9 through the system, been peer reviewed and published, I
10 agree that this is the best current solution. Yes.

11 Q. On page 5 of your rebuttal testimony,
12 referring to that EPA process, you note that you're
13 involved in EPA's process; is that correct?

14 A. Indirectly.

15 Q. Indirectly?

16 A. Yeah. Our research team is providing
17 information to EPA. We are not working with EPA
18 directly.

19 Q. And EPA in that process is considering a
20 biotic ligand model?

21 Is it ligand or ligand?

22 A. Depends how you pronounce it.

23 Q. Tomatoes, tomatoes.

24 A. Each is correct. Yes.

25 Q. Okay.

1 Regardless, they are considered a biotic
2 ligand model that accounts for not only hardness, but
3 other parameters, namely pH, dissolved organic carbon,
4 temperature, and that model is premised on EPA's
5 compilation and assessment of scientific and technical
6 studies to date; is that accurate?

7 A. They are reviewing the biotic ligand model in
8 addition to other simpler solutions. That's correct.

9 Q. Does this not suggest to you that even though
10 you contend that the currently recommended 304(a)
11 criteria are dated, that use of the hardness-based
12 criteria is problematic because it focuses on hardness
13 to the exclusion of pH, dissolved organic carbon and
14 temperature?

15 A. No. I do not, because to go backwards and
16 ignore hardness is a less scientifically valid solution.
17 Hardness may not be perfect, but it is better than not
18 using any water quality adjustment.

19 Q. Doesn't the hardness-based criteria run
20 against the grain of the current scientific and
21 technical evidence that is informing how best to remedy
22 aluminum toxicity?

23 A. I would -- I would instead articulate it as
24 aluminum is working to catch up to the other metals. It
25 is not working against the grain. It is behind in terms

1 of development of the science. But many of the same
2 scientific properties do apply and will eventually
3 apply.

4 Q. As referenced in your rebuttal testimony on
5 page 4, GEI developed a hardness-based aluminum criteria
6 proposal for West Virginia, in August 20, 2011; is that
7 correct?

8 A. That's correct.

9 Q. And is this very similar to New Mexico's
10 current hardness-based aluminum criteria?

11 A. I believe the criteria equations are the same.

12 Q. EPA expressed concerns regarding that
13 proposal, did it not?

14 A. Yes, they did.

15 Q. And you provided a copy of EPA's letter as
16 Exhibit 8, attached to your rebuttal testimony?

17 A. I believe so, yes.

18 Q. Those concerns -- and I understand that you
19 said some of this during your direct testimony earlier.
20 These concerns related to whether hardness-based
21 aluminum criteria were protective of mussels and account
22 for pH as a critical factor; is that accurate?

23 A. Could you restate the question, please.

24 Q. That letter identified toxicity issues with
25 mussels and lack of accounting for pH as a critical

1 factor; is that accurate?

2 A. That's correct.

3 Q. Is it your expert view that the concerns
4 raised by EPA regarding the West Virginia proposal are
5 or are not relevant to New Mexico?

6 A. They would only be relevant to New Mexico if
7 the studies were conducted of the -- of the type and
8 relevance that could be used according to EPA
9 guidelines, the '85 guidelines for derivation of
10 criteria. Since I've not done that review, I can't
11 provide a direct opinion as to whether there are --
12 those specific studies cited are relevant or not.

13 Q. Is it your expert view that the concerns --
14 oh, I'm sorry. Excuse me. That was the same question.
15 Withdrawn.

16 Are you aware of mussel species in New Mexico
17 that may, like West Virginia, be more sensitive to
18 aluminum exposure and toxicity?

19 A. I have no knowledge of what -- direct
20 knowledge of what mussel species exist in New Mexico or
21 their sensitivity to aluminum or anything else.

22 Q. Does New Mexico's hardness-based aluminum
23 criteria account for exposure or toxicity risk to
24 mussels?

25 A. The New Mexico criteria, like any other

1 numeric aquatic life criteria derived according to EPA
2 guidelines, is meant to protect the entire -- protect
3 aquatic life generally at the levels of protection set
4 forth in those guidelines. So it's intended to cover
5 all aquatic life generally.

6 Q. In developing your 2009 proposal, did you
7 include studies that addressed potential toxicity
8 impacts to either mussels or gastropods as -- from the
9 public testimony earlier today?

10 A. I have to go back and look, but I don't
11 immediately recall that we had any acceptable studies
12 for mussels or gastropods that we were -- that were
13 available to us at the time.

14 Q. On page 20 of your rebuttal testimony, you
15 agree with Dr. -- if I understand this right, you agree
16 with Dr. Gundersen that there was little data regarding
17 aluminum toxicity at a pH range of 8.5 to 9.0, correct?

18 A. Correct.

19 Q. Do you think that there was a risk of
20 intensified aluminum toxicity at pH range of 8.5 to 9.0?

21 A. With the limited data we have available to us,
22 I do not believe so. As indicated on the discussion at
23 the bottom of page 20 and top of page 21, that's the sum
24 total of all I know about it. But based on information,
25 I do not have a concern. No.

1 Q. Do you believe that reversion to the pre-2009
2 standard, the EPA-approved 304(a) criteria, would better
3 protect against that risk, given that uncertainty
4 dealing with the science?

5 A. No, I do not. And as a -- to repeat what I
6 said in my verbal testimony, the '88 criteria suffers
7 from the same limitation so it does nothing to correct
8 that.

9 Q. On page 5 of your rebuttal testimony, you
10 refer to the Stubblefield, et al., 2012 presentation or
11 report, correct?

12 A. It was a presentation.

13 Q. You were -- if I understand it right, you were
14 an author of that study?

15 A. Correct.

16 Q. What were the conclusions in the studies in
17 this presentation relative to aluminum toxicity?

18 A. I don't recall at this time the detailed
19 conclusions.

20 Q. If I understand your testimony right, though,
21 you contend that those studies were conducted at or near
22 a pH of 6.0?

23 A. Correct.

24 Q. Are these studies valid for evaluating the
25 protectiveness of hardness-based aluminum criteria?

1 A. These studies were conducted as part of a
2 larger program specifically to improve that database.
3 So they're a specific example of a larger data set for
4 that purpose. Yes.

5 Q. Would you agree with Dr. Gundersen's
6 conclusion based on this study that application of
7 hardness-based aluminum criteria are not practical or
8 sound for waters with a pH below 6.5?

9 A. That -- no, I would not.

10 MR. SCHLENKER-GOODRICH: No further questions.

11 MR. CHAVEZ: Thank you.

12 Freeport, do you have any questions for this
13 witness?

14 MS. CHAPPELLE: I do not, Your Honor.

15 MR. CHAVEZ: Mr. Chairman, I'd now like to
16 move to the Commission for questioning.

17 But just real quick, for those of you who are
18 here for public comment, we appreciate your patience.
19 We just need to finish with this witness, and at the
20 conclusion of this witness, we will get to your
21 comments. So I appreciate that very much.

22 Mr. Chairman, members of the Commission,
23 questions.

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CROSS EXAMINATION

BY THE COMMISSION:

MR. DOMINGUEZ: Commissioner Hutchinson.

MR. HUTCHINSON: Good afternoon, Dr. Gensemer.

MR. GENSEMER: Good afternoon.

MR. HUTCHINSON: Do you know what are the pH characteristics of the waters in West Virginia?

MR. GENSEMER: I'm sorry.

Could you repeat the question.

MR. HUTCHINSON: Do you know what the pH characteristics are for the waters in West Virginia?

MR. GENSEMER: Not in any detailed way. I think generally they tend to have more waters in an acid pH range than New Mexico does, but other than that, I do not know specifically.

MR. HUTCHINSON: That gets to what I was looking for.

And what about the hardness issues for West Virginia? Are you familiar with the hardness of -- in general of the waters of West Virginia?

MR. GENSEMER: With respect to what kinds of hardness ranges are encountered in West Virginia?

MR. HUTCHINSON: Versus New Mexico.

MR. GENSEMER: I -- I have no basis of -- or knowledge of differences exactly what's in West Virginia

1 or how they compare to New Mexico.

2 All I know is there are certainly waters of
3 enough hardness where there was a desire to go to a
4 hardness-based criteria solution. There was, obviously,
5 a benefit seen by doing so.

6 MR. HUTCHINSON: And in regards to the letter
7 that West Virginia received from EPA, would it be more
8 appropriate to classify that as EPA and US Fish and
9 Wildlife Service raising concerns about mussel
10 sensitivity to aluminum?

11 MR. GENSEMER: And that really is the sum
12 total of what it does. It raises the concern but does
13 not answer the question, I guess is how I would
14 articulate it.

15 MR. HUTCHINSON: And did they -- did they note
16 in their letter that their comments were preliminary in
17 nature and did not constitute a final decision by EPA
18 concerning the aluminum standards?

19 MR. GENSEMER: Yes, I believe so. They say
20 almost exactly that in their concluding paragraph.

21 MR. HUTCHINSON: Okay. Thank you.
22 That's all I have.

23 MR. DOMINGUEZ: Commissioner Sayer.

24 MR. SAYER: Just one question. I think it's
25 been addressed to some degree.

1 But can you just articulate briefly why EPA
2 has not yet adopted the hardness-based standard -- has
3 not recommended a hardness-based standard?

4 MR. GENSEMER: Not being directly part of the
5 EPA process, I can't give you a direct answer.

6 All I know from talking to EPA and Diana
7 Eignor specifically -- I think Dr. Gundersen mentioned
8 her -- she's the person at EPA who is in charge of this
9 work -- they've just not finished with the work, and
10 they've been unwilling to state with any certainty
11 exactly what their solution is going to be.

12 So I have no idea directly what they're going
13 through at this time.

14 MR. DOMINGUEZ: Commissioner DeRose-Bamman.

15 MS. DEROSE-BAMMAN: Thank you, Mr. Chairman.

16 You had been involved with the project with
17 the Arid West Project in Tucson, you said, or Pima
18 County?

19 MR. GENSEMER: Yeah. This was -- it was
20 called the Arid West Water Quality Research Project. It
21 was administered out of Pima County in Tucson. It was
22 an EPA Region 9-funded project. I can give you as much
23 detail as you wish about that or we have time.

24 MS. DEROSE-BAMMAN: And was it based on
25 information to study for Arizona waters, or was it kind

1 of a broader Southwest states issue?

2 MR. GENSEMER: Yeah. The project itself
3 encompassed virtually all the Arid West states in a
4 series of projects, not just the one that prompted the
5 derivation of the hardness criteria, but it did include
6 waters and analysis in New Mexico, Arizona, California,
7 Colorado -- I'm probably missing -- maybe Utah, as well.
8 I'm not sure. I can't remember the exact states. But
9 it definitely included Arizona and New Mexico.

10 MS. DEROSE-BAMMAN: Do you know what standards
11 apply in Arizona for aluminum?

12 MR. GENSEMER: Not off the top of my head
13 right now. I'm sorry. I do not.

14 MS. DEROSE-BAMMAN: Okay. Thank you.

15 MR. DOMINGUEZ: Commissioner Dawson.

16 MR. DAWSON: Thank you, Mr. Chairman.

17 Dr. Gensemer, my question is you -- in your
18 testimony, it says that you are part of the European
19 Aluminum Association team which is studying mussels --
20 studying the aluminum-based criteria.

21 Are you -- the study that you're conducting
22 with the aluminum -- with the European Aluminum
23 Association, are those species of mussels that you are
24 studying with them -- are they -- are some of those
25 species in -- also in North America, in New Mexico?

1 MR. GENSEMER: We are actually not
2 conducting -- or have not conducted any tests of mussels
3 that I recall. The test species are list -- I think
4 many of the species we addressed are listed in the
5 Stubblefield, et al., presentation that might have been
6 cited in one of the testimonies.

7 But we were not specifically targeting mussels
8 in that study. We were working with a broad range of
9 typically tested surrogate test species to meet the
10 needs of European water quality framework directives and
11 EPA criteria guidelines.

12 MR. DAWSON: Okay.

13 On the US -- the EPA, they're currently
14 working on the updates.

15 In their studies, do you know are they -- are
16 they using New Mexico -- or the North American, you
17 know, species for their studies?

18 MR. GENSEMER: My limited understanding -- I
19 don't know all the details -- I believe EPA is funding
20 and in the process of conducting or soon to be
21 conducting studies of mussels and they will be using
22 North American resident species. I believe that is
23 correct.

24 MR. DAWSON: Their report is supposed to be
25 out sometime this year.

1 Do you know when?

2 MR. GENSEMER: By report, do you mean the
3 updated criteria guidance or mussel studies?

4 I'm not sure --

5 MR. DAWSON: Yes.

6 MR. GENSEMER: For anybody who's worked with
7 updates to national criteria with EPA, you never exactly
8 know when it's going to be. So I can't say that -- I
9 spoke with EPA most recently about four weeks ago at a
10 workshop in Washington, DC, and I don't know more about
11 when it will come out than I did before that.

12 MR. DAWSON: All right. That's all the
13 questions I have.

14 Thank you.

15 MR. DOMINGUEZ: Commissioner Longworth.

16 MR. LONGWORTH: Thank you.

17 My question is pretty much similar to what I
18 asked before.

19 The West Virginia proposed standard is
20 dissolved aluminum versus the standards in New Mexico
21 and Colorado that are total recoverable aluminum.

22 Could the USEPA letter to West Virginia be in
23 any way affected by the fact that West Virginia was
24 proposing the standards dissolved aluminum, and it
25 sounds like pretty high levels, and that dissolved

1 aluminum, from what I understand from previous
2 testimony, is something more of a higher concern than
3 total recoverable?

4 MR. GENSEMER: Complex question, there's
5 a complex answer. Let me see if I can break it down.

6 I don't recall from the EPA letter to what
7 extent dissolved aluminum per se was part of their
8 concern. How different states have expressed the
9 criteria, whether it's dissolved or total recoverable,
10 is kind of a long story. I'm happy to try to summarize
11 whatever it needs to help answer your question.

12 West Virginia is just like New Mexico six
13 years ago, where their state criteria were based on
14 dissolved metal, based on their interpretation of the
15 1988 national criteria. Which the point of fact is the
16 1988 criteria are actually -- they proposed use of a
17 different assay altogether, something called acid
18 soluble.

19 And I don't know if I want to take much of the
20 Commissioners' time to try to go all through the
21 nuances. It was a major discussion point during the
22 last triennial review and led to the way the New Mexico
23 standard is currently expressed, as total recoverable
24 after prefiltration through numerical basis.

25 Is there any aspect of that you would like me

1 to drill into some more to help answer your question?

2 MR. LONGWORTH: Mr. Chairman, no, no. That's
3 fine.

4 Do you have any idea why West Virginia
5 dissolved came up with similar values and New Mexico
6 uses total recoverable?

7 MR. GENSEMER: Again, I don't know all the
8 details around what West Virginia did after we submitted
9 our report. All the reports of GEI -- and when I was at
10 Parametrix previously, all the reports, I believe,
11 proposed them as dissolved.

12 Our interpretation at the time was dissolved
13 is more correct than total recoverable, understanding
14 the national criteria at that time became ex- -- became
15 interpreted by EPA as total recoverable basis.

16 It basically is, as anyone who will go back to
17 the administrative record from six years ago will see --
18 our conclusion at the time was dissolved was less wrong
19 than total recoverable, put it in plain language.

20 But more to the point, West Virginia, just
21 like New Mexico before, six years ago, their criteria
22 already were expressed as dissolved. So I think -- so
23 far as I know, the proposal was just carried forward
24 with only changing to hardness-based criteria, not
25 changing how they were expressed.

1 That's basically all I know of West Virginia.

2 MR. LONGWORTH: Okay. I appreciate that.

3 Then, I guess, my final question would be is
4 given -- again, on this page 5 of Dr. Gundersen's
5 report, Table 1, is the proposed West Virginia standard
6 more or less -- or would provide for a higher amount of
7 dissolved aluminum than the current New Mexico standard,
8 for the same hardness?

9 MR. GENSEMER: I think it would really depend
10 on having to look at the -- you know, the ratios of
11 dependency between dissolved and total recoverable to
12 see how different they would be based on their waters.

13 From my understanding, their dissolved and
14 acid soluble concentrations they studied were all very
15 similar. I don't know how it relates to total
16 recoverable in their waters.

17 So without understanding the relative
18 chemistries of both waters, I can't say. But the basis
19 of the criteria derivation were all based on exactly the
20 same laboratory tests, the exact same kinds of exposure
21 systems in all cases. That's why the equations were the
22 same.

23 MR. LONGWORTH: Oh, okay. Well, that helps.

24 Thank you.

25 MR. GENSEMER: Yeah.

1 MR. DOMINGUEZ: Mr. Hearing Officer, that
2 concludes Commission questions.

3 MR. CHAVEZ: Thank you, Mr. Chairman, members
4 of the Commission.

5 So at this point, and let me remind you this
6 is not public comment yet, but is there anybody from the
7 public that wishes to cross-examine this witness on the
8 testimony he has provided?

9 MR. MORGAN: I would.

10 MR. CHAVEZ: Please come forward.

11 MR. MORGAN: I don't know if this is a
12 proper --

13 MR. CHAVEZ: Hold on, sir.

14 MR. MORGAN: -- question --

15 MR. CHAVEZ: Sir.

16 MR. MORGAN: Oh.

17 MR. CHAVEZ: If you can please come and sit
18 down --

19 MR. MORGAN: Oh, sorry.

20 MR. CHAVEZ: -- and state your name for the
21 record.

22 Please sit down up here.

23 MR. MORGAN: Oh.

24 MR. CHAVEZ: Let me remind you that this
25 questioning has only to do with the testimony he has

1 provided.

2 MR. MORGAN: Okay. I'm not clear about that,
3 but may I ask my question and see if it is significant
4 or not?

5 MR. CHAVEZ: Yes. It may be objected to, sir.
6 But please proceed.

7 THE REPORTER: And give me your name, please.

8 MR. MORGAN: James Morgan.

9 CROSS EXAMINATION

10 BY MR. MORGAN:

11 Q. I commented earlier about the development of
12 the slope value in the hardness equation and the fact
13 that concentrations used were concentrations added to
14 make the solution, but they were not the concentrations
15 measured in the solution. And there's a factor of at
16 least 10 for those different determinations.

17 The slope consideration should have been based
18 on the actual aluminum content in the reaction vessel.
19 For none of the species that were used to make the
20 determination of slope was that done.

21 So that invalidates the slope parameter for
22 the equation, and also the Y intercept, because the Y
23 intercept is based on the slope.

24 So my contention -- or question to
25 Dr. Gensemer is is that correct, what I have stated?

1 MR. GENSEMER: Is that a valid question to
2 answer?

3 It seems like it's direct to my question.

4 MR. CHAVEZ: Mr. Rose?

5 MR. ROSE: I have no objection.

6 MR. GENSEMER: I'd be glad to.

7 Without going back on all the individual
8 studies, I can't be sure, but I believe most of the
9 studies did analytically measure total aluminum in a
10 vessel, some did not. I recognize that.

11 But in the case of at least in these -- for
12 the ones that didn't do that, we made the best
13 professional judgment solution at the time, that EPA and
14 NMED all reviewed and approved, that the concentrations
15 based on what we call nom aluminum were close enough to
16 what would have been analytically measured.

17 Because again, we're working with total
18 aluminum here, not dissolved aluminum as the dose
19 response factor. So we were -- I would say we were much
20 closer to plus or minus tenfold accuracy in our
21 determination.

22 Q. In the case of the Kimball studies for D magna
23 and the fat nose minnow -- in both of those studies, the
24 samples taken from the reaction medium only showed
25 values of less than one-tenth of what the LD 50 was

1 reported to be.

2 So -- and in the NSR study as well, which was
3 a part of the slope determination for the fat nose
4 minnow, again there were values stated in tens of
5 thousands of microliters -- micrograms per liter.

6 And in all of these instances, those far
7 exceed the solubility of aluminum at the pHs that were
8 conducted in these experiments, and was noted in the
9 Kimball paper over 90 percent of the aluminum simply
10 precipitated out of solution.

11 So your stated LD 50 measurements were based
12 on including all of the precipitate aluminum matter as a
13 function of LD 50. And that is simply incorrect.

14 MR. CHAVEZ: Sir, if I may, this is a time for
15 cross-examination of the witness, and you're making
16 public comment statements. So if you could ask a
17 question. I'm sorry to cut you off, but we -- you know,
18 this is a time for cross-examination only.

19 Q. (BY MR. MORGAN) So I asked if the slope and
20 waters of determinations in the hardness-based
21 determination are based on proper LD 50 determinations.

22 A. I believe that they are based on the testimony
23 I've provided here and previously six years ago on that
24 testimony, and I would stand by that. I do believe they
25 are accurate.

1 Q. Even though there's a difference in a factor
2 of more than 10 or 20?

3 A. Depending on the basis of that question, it's
4 important to note that even though concentrations of
5 aluminum exceed solubility in these kinds of pH
6 conditions, the organisms are, in fact, exposed to that
7 precipitated phase, and it does contribute to toxicity.
8 So the dose response can and must include all of the
9 aluminum.

10 And that is the best way to toxicologically
11 understand and interpret those data. So I believe
12 that's the basis of why I say that is correct.

13 Q. So you're stating that the concentration of a
14 solid can be treated in the same manner as the
15 concentration of a soluble substance, when, in fact, it
16 is a stated factor of chemical thermodynamics that a
17 solid can only be treated as having a concentration of 1
18 irrespective of the amount of solid present.

19 A. Well, first, I'm not an expert in
20 thermodynamics. I do remember that from college
21 chemistry to some extent. But these are basically
22 suspended solids. The organisms are exposed and is a
23 true concentration in the best particular toxic response
24 to look at total recoverable of all the aluminum even if
25 it exceeds solubility.

1 Q. But samples were a total recovery sample
2 taken. So they did include both soluble and suspended.
3 And those concentrations were less than one-tenth of
4 what was reported to be the LD 50 measurements. So the
5 LD 50 measurements were incorrect in that they used only
6 the concentration that was used to make the solution,
7 not the actual concentrations that were effective in the
8 LD 50 determinations.

9 A. I don't recall the details of the Kimball
10 study. I apologize. So I can't give you a full
11 response.

12 But I just will remind everybody, as I said a
13 couple times today, that EPA did include that study in
14 the '88 guidelines and considered it acceptable. I'm
15 sorry. In the '88 criteria. Excuse me.

16 MR. CHAVEZ: Any further questions, sir?

17 MR. MORGAN: No, not at this time.

18 Thank you.

19 MR. CHAVEZ: Thank you very much.

20 Once again, anybody in the audience that
21 wishes to cross-examine this witness?

22 Seeing none, I'll go ahead and move back to
23 Mr. Rose for any redirect.

24 MR. ROSE: No redirect, Mr. Hearing Officer.

25 MR. CHAVEZ: Thank you very much.

1 Mr. Chairman, members of the Commission, I
2 think at this point we're not going to conclude the
3 hearing right now, not quite yet, but for today, any of
4 the presentations of the parties, and I'd like to move
5 to public comment, as we only have this room until
6 6 o'clock.

7 So at this point, do we want a five-minute
8 break, or are we okay to just keep going?

9 MR. DOMINGUEZ: Mr. Hearing Officer, I would
10 say given the time we should just continue and push
11 through.

12 MR. CHAVEZ: Thank you, Mr. Chairman.

13 In looking to the audience, can you raise your
14 hand if you are going to provide public comment?

15 Okay. Thank you, guys. Thank you for showing
16 up. We do appreciate that.

17 So everybody look at the clock and just
18 understand given the number of you guys we have until
19 about 6 o'clock. So just be mindful of how long you are
20 speaking, the number of people we have here tonight.

21 So whoever wants to approach first, why don't
22 you come up, have a seat, and we'll swear you in for
23 your comment.

24 Actually right here, ma'am, in front.

25 MS. MARIAN NARANJO: Here?

1 MR. CHAVEZ: Center stage.

2 MS. MARIAN NARANJO: Center stage.

3 MARIAN NARANJO

4 having been first duly sworn or affirmed, gave
5 public comment as follows:

6 PUBLIC COMMENT

7 THE REPORTER: Would you state and spell your
8 name, please.

9 MS. MARIAN NARANJO: My name is Marian
10 Naranjo, M-A-R-I-A-N N-A- -- or -- M -- there it is.
11 Let me -- okay.

12 (Speaking not in English.)

13 Good afternoon, Chairman --

14 MR. CHAVEZ: Ma'am, please feel free to have a
15 seat.

16 MS. MARIAN NARANJO: Oh, thank you.

17 Good afternoon, Chairman and members of the
18 committee.

19 As I already stated my name, Marian Naranjo.
20 I'm a tribal member of Santa Clara Pueblo and founder
21 and executive director of an organization called Honor
22 Our Pueblo Existence, or HOPE.

23 Our organization's mission is "We embrace the
24 pueblo teachings of love, respect and care, working
25 together improving the life ways of our people in order

1 to provide an enhanced and sustainable environment for
2 generations to come."

3 I am here today to provide public comment in
4 support of clean water for all New Mexicans. Clean
5 water is important to us as indigenous peoples for uses
6 in ceremonies which require pure, clean water. HOPE and
7 its members are concerned about a number of proposals to
8 weaken water quality projections.

9 We urge the Water Quality Control Commission
10 to reject the temporary standards proposal to weaken
11 water quality standards in small ponds and wetlands.
12 Allowing pollution in small ponds and wetlands,
13 especially where Los Alamos National Laboratory is
14 located, could impact downstream communities that depend
15 on clean water for drinking, irrigation, recreation and
16 ceremonial uses.

17 Thank you for this opportunity to provide
18 comment.

19 MR. CHAVEZ: Thank you, Ms. Naranjo.

20 Next.

21

22

23

24

25

1 KATHY "WAN POVI" SANCHEZ

2 having been first duly sworn or affirmed, gave
3 public comment as follows:

4 PUBLIC COMMENT

5 THE REPORTER: Would you state and spell your
6 name, please.

7 MS. SANCHEZ: My name is Kathy "Wan Povi"
8 Sanchez, K-A-T-H-Y W-A-N P-O-V-I, Sanchez,
9 S-A-N-C-H-E-Z.

10 As stated, my name is Kathy "Wan Povi"
11 Sanchez, and I live in San Ildefonso Pueblo. And so I
12 have dual citizenship. So I'm here as a citizen of New
13 Mexico and also as a citizen of the sovereign nation of
14 San Ildefonso Pueblo. I'm not representing SI, but I'm
15 a citizen from there.

16 And I am concerned here with what I've heard.
17 I sat through some -- a lot of the talk here about the
18 toxicity levels, and I am concerned about the quality of
19 our clean water. And so I -- I am in support of clean
20 water, because of the multilevel of interactive,
21 holistic nature of our life giver, which is water. And
22 as humans, we are vessels that hold the water for life
23 in us, and it is not based on allowable harm.

24 I think when we talk about toxicity and the
25 levels of certain chemicals or metals or things that

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1 enter into water, we are talking two different ways of
2 thinking.

3 And in my life as a native person, a lot of
4 our teachings go back thousands of years, and a lot of
5 talk about what gives life to water and who -- what
6 water gives life to us is about keeping the water
7 quality controls or standards that protect the most
8 vulnerable in us, which is our -- our women, our
9 children, our pregnant women, farmers, and all of life
10 that is related to water. And we are water people. We
11 are vessels that hold that water.

12 And so it's very important to talk about
13 different standards, as far as expert testimony goes,
14 that I hope that our presentations as people in New
15 Mexico that live here and have been here -- and our
16 children are going to be speaking pretty soon, too -- is
17 that you're also listening from many different levels of
18 that interactive nature of what water means to all of
19 us.

20 And the health of the water is -- also means
21 the health of the people. And how we relate to water
22 and the water molecules is very holistic in terms of how
23 life in a desert -- high desert exist.

24 And so I would ask all of you to be listening
25 for many different levels of point of expertise that

1 have been here and listening to aluminum standards that
2 are there up in industry, that has come most recently
3 for the profitability of what can be done and what the
4 threshold of that allowable harm is in relationship to
5 water, the fish, life and us, and how that two might
6 bump heads, and how is the fluidity of that groundedness
7 in our spiritual ways be also present in this
8 discussion.

9 So I am thankful that you allowed me to be
10 present to hear the expert testimonies that have been
11 presented on both sides, and also the New Mexico
12 Environmental Department, and their considerations of --
13 of what standards is best for water to exist for us all
14 to be alive here in high desert.

15 And I live right near the Rio Grande, and so I
16 am really concerned about the quality of the water and
17 the discharge that goes into that water and what it
18 means for us, to be mindful of the next generations to
19 come, because the toxic levels that we're talking about
20 with just aluminum itself is just one element, and
21 there's other metals, other interactions.

22 So there's that exponential harm or that
23 interlay of the -- not just the cumulative pathway, but
24 the multiple pathways enter us, and enter our water.

25 So I thank you for considering all the

1 different aspects of that.

2 Good night.

3 MR. CHAVEZ: Thank you very much, ma'am.

4 MS. EVELYN NARANJO: Good afternoon.

5 EVELYN NARANJO

6 having been first duly sworn or affirmed, gave
7 public comment as follows:

8 PUBLIC COMMENT

9 THE REPORTER: Would you state and spell your
10 name, please.

11 MS. EVELYN NARANJO: Evelyn F. Naranjo,
12 E-V-E-L-Y-N:

13 (Speaking not in English.)

14 Good afternoon, members of the Water Quality
15 Commission and the public.

16 My name is Evelyn F. Naranjo. My Tewa name is
17 Than Povi, which means sunflower. And we're talking
18 about water quality, and I'm one of the flower child, I
19 guess you could say.

20 I live in the Pueblo of San Ildefonso, which
21 is along the Rio Grande River. I am also a concerned
22 member of the public, and I am here today to provide a
23 public comment in support of clean water.

24 Why I care about clean water is I'm a native
25 indigenous human living being who, as I stated earlier,

1 live by the Rio Grande. My people cannot -- I cannot go
2 fishing. I cannot go swimming.

3 When I was a young child, I remember growing
4 up, fishing was food. Water was swimming. We would go
5 along the edge line, just jump in. No worry about the
6 poison, the toxicity that's in there. As we were
7 growing up, air pollution. Toxicity. We live right
8 below Los Alamos.

9 And another thing is another concern about the
10 chromium that's there. We're surrounded by poison. We
11 know that.

12 As I stated earlier, I grew up just fishing,
13 getting the trouts, catfish. Now for my kids to go
14 fishing, you can't allow that. We don't allow them. We
15 don't even allow them to go swimming.

16 Why? Because of the dangerous toxicity that's
17 coming down. The worry that they eat that, what's going
18 to happen.

19 But we know that's the two worlds that we're
20 living in. There's people that live in three worlds,
21 four worlds. My native people, my indigenous people, we
22 went out hunting. Wood was abundant. Now it's limited
23 because of the water.

24 I come from a generation of pottery making, my
25 great grandmother, my sister that just spoke now. We

1 speak of the truth. Pottery making was our livelihood.
2 Now it's also limited to get our clay portion. Horse
3 manure, cow manure, our animals are affected.

4 We cannot feel comfortable in just going out
5 there. When our men go hunting, as stated earlier, for
6 ceremonial reasons, we have to be careful what they
7 bring to us. Yes, it's a blessing when we do
8 traditional living.

9 I talked about our trees, the endangerment. I
10 am particularly concerned about a proposal that would
11 allow temporarily weakening the standard of downstream
12 from polluters.

13 To protect communities downstreams from
14 discharges, I urge the Water Quality Control Commission,
15 and I quote, to reject this temporary standard proposal.
16 I believe that there are already structures in place and
17 compliance schedules that provide the needed flexibility
18 to dischargers.

19 In addition, I quote, I urge you as a
20 Commission to ensure that fish and the many recreational
21 and economy -- excuse me -- economic interests that
22 depends on healthy fish, food of the populations are
23 protected by replacing and protecting, based on that
24 aluminum standard with the EPA-recommended aluminum
25 criteria as proposed by Amigos Bravos.

1 Finally, I would like to urge to reject the
2 proposal to weakening water quality standards or to
3 weaken water quality standards in small -- small ponds
4 and wetlands and our lakes, allowing pollution in these
5 waters which are found often in headwaters system -- we
6 call it the head gates -- which impact downstreams
7 communities that depends on clean waters for drinking.

8 As you see me pointing from the -- from the
9 west side when the fires came, 2000, it destroyed our
10 mountains. It destroyed our animals. It destroyed
11 human life, ancestors that we know. They cried.
12 They're asking to be helped.

13 So I ask the Water Quality Commission to
14 please think about this, allowing pollution of these
15 waters which are often found in headwaters.

16 Also I'd like to talk about our drinking
17 waters, very limited also, even to irrigate the gardens.
18 People are asking us why don't you have crops, corn. I
19 grew up with corn. We cannot do that now. It's very
20 limited. Water is trickling down. It's not as abundant
21 as we used to have it.

22 Wildlife is also being threatened.

23 My family and I depend on clean waters,
24 because I -- and I will say we love to go fishing. We
25 would like again to go fishing. We would like again to

1 go swimming. We would like to again be holistically
2 live to live that on the Rio Grande.

3 I'd like to talk about our unborn children
4 that are not -- that are here -- that are not here,
5 because that's part of their livelihood. As earlier
6 said about the trouts, as earlier said about the
7 mussels, mussels are living. If you go to the lakes,
8 you go to the ponds, they are clinging to their life, on
9 the stands of the bridges. They are also living
10 fossils, as my sister stated earlier, about our life.

11 So I want to say thank you for allowing me to
12 speak. I was sort of intimidated earlier when I walked
13 in, and I said I don't want to speak, but as I hear
14 testimonies, as I hear all this being raised, I said I
15 need to be -- I need to be a voice and be an advocate
16 for our unborn -- our born -- unborn generations.

17 I'm a grandmother. I'm a single parent. I'm
18 a great grandmother. And I remember my great, great
19 grandmother, Maria Martinez, saying it is our unborn
20 children that we live for. Without them, we will not
21 even be here.

22 So I say thank you very much for allowing me
23 to speak and to have my voice heard. Thank you.

24 MR. CHAVEZ: Thank you, Ms. Naranjo.

25

1 ROBERT CHAVEZ

2 having been first duly sworn or affirmed, gave
3 public comment as follows:

4 PUBLIC COMMENT

5 THE REPORTER: Would you state and spell your
6 name, please.

7 MR. ROBERT CHAVEZ: Robert Chavez, R-O-B-E-R-T
8 C-H-A-V-E-Z.

9 Good afternoon, Mr. Chairman --
10 Mr. Chairperson and members of the committee.

11 My name is Robert Chavez, and I'm the youth
12 coordinator for Communities for Clean Water Youth
13 Council Initiative Project. I'm from Ohkay Owingeh and
14 Santa Clara Pueblos.

15 I'm here today to offer comments on behalf of
16 the youth council and -- and the Youth Council
17 Initiative Project.

18 Water is the most important thing in life.
19 Without it, we are nothing, absolutely nothing.

20 Therefore, I urge you as -- as a Commission to
21 observe the priority of life and replace the current
22 aluminum standard with the EPA-recommended aluminum
23 criteria as proposed by Amigos Bravos -- as proposed by
24 Amigos Bravos, and to reject the proposal to weaken
25 water quality standards in small ponds and wetlands to

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1 ensure that all wildlife in this area is protected.

2 It's a very important part of the ecosystem,
3 and it deserves our protection.

4 Water is life, and never forget it. It's the
5 most important thing that is here, the most important
6 thing to us. We are made mostly of water.

7 Youth are very important to all of us. It is
8 my job as youth coordinator to teach, to educate our
9 youth, so that they may be informed, educated, when they
10 sit in your positions one day, when they are the leaders
11 of the community, when they are making decisions on
12 behalf of the future generations, that they know water
13 is life, and all life must be protected.

14 And we cannot protect life without the most
15 important thing to us. A lot of you have it here in
16 front of you today. You need it. Without it, we are
17 nothing.

18 Thank you.

19 MR. CHAVEZ: Thank you.

20 ZACHARY VIGIL

21 having been first duly sworn or affirmed, gave
22 public comment as follows:

23 PUBLIC COMMENT

24 THE REPORTER: Would you state and spell your
25 name, please.

1 MR. VIGIL: Hello. My name is Zachary Vigil,
2 Z-A-C-H-A-R-Y V-I-G-I-L.

3 And I would just like to propose that all
4 the -- all water should be cleaned, and it should all
5 have a -- some sort of living to it, and all the
6 aluminum and toxins that are in the water are making
7 just difficulties for everything that lives and to
8 prosper.

9 So it's holding things back, and I think that
10 it should be purged from that toxicity, and it could
11 just -- people can just work towards making the water
12 clean and put efforts towards that.

13 And I'd like to thank you for letting me make
14 a comment.

15 And that is all.

16 MR. CHAVEZ: Thank you, sir.

17 FRANK BREWER

18 having been first duly sworn or affirmed, gave
19 public comment as follows:

20 PUBLIC COMMENT

21 THE REPORTER: State and spell your full name,
22 please.

23 MR. BREWER: Frank Brewer, F-R-A-N-K
24 B-R-E-W-E-R.

25 Good afternoon -- good afternoon, Chairman and

1 members of the committee. Greetings.

2 My name is Frank Brewer. I am from the
3 Pueblos of Santa Clara and San Ildefonso Pueblo. Sorry.

4 And being a tribal native, we cherish our
5 water for it is sacred and used in most traditional
6 ceremonies. More universal in common uses for clean
7 water besides drinking and irrigation is recreation. My
8 friends and I go swimming in the summer. I would go
9 camping with my family.

10 To sum it up to keep this brief, everything
11 said is a tenth of a tenth of a fraction on how I used
12 water and how it is -- and was important to me. As I
13 said before, I am new to fatherhood, and already my
14 awareness for life has noticeably changed. I want my
15 children to have a happy and healthy life. I see water
16 as an undervalued key to life, past, present and future.

17 I am here to ask this Commission for the
18 highest standard of water quality, not only for our
19 well-being, but for our children and our children's
20 children and so on.

21 I urge you as a Commission to ensure the
22 protection for animal, fish and man. Reject this
23 temporary standards proposal as well as the proposal to
24 weaken water quality standards for small ponds and
25 wetlands.

1 And with that being said, I would like to
2 thank you for public comment.

3 MR. CHAVEZ: Thank you very much.

4 ELIZABETH CHAVEZ

5 having been first duly sworn or affirmed, gave
6 public comment as follows:

7 PUBLIC COMMENT

8 THE REPORTER: State and spell your full name,
9 please.

10 MS. CHAVEZ: Elizabeth Chavez,
11 E-L-I-Z-A-B-E-T-H C-H-A-V-E-Z.

12 Good afternoon.

13 My name is Elizabeth Chavez. I'm from the
14 Ohkay Owingeh Pueblo. And I'm here to comment on why I
15 care about having clean drinking water.

16 I think it is very important to have clean
17 drinking water in our homes not only for us, but for our
18 children, our families and, yes, even our pets. If we
19 don't have clean drinking water, it can most definitely
20 affect our health and well-being.

21 It is also very important to have clean water
22 in our rivers and lakes, not only for our crops, but we
23 need it to keep the fish and animals safe. When animals
24 and fish live in contaminated water, they become
25 contaminated. When we hunt, go fishing, or even when we

1 go swimming, we have that chance of also becoming
2 contaminated, because when we eat fish or animals that
3 have already been contaminated, we have the chance to
4 put in our bodies what went into theirs.

5 I care about the animal pop -- I care because
6 animal population has gone down enough, and I want my
7 grandchildren to live long lives and to be able to live
8 in an environment where they won't have to worry
9 about -- worry about what's in their drinking water or
10 what's in their surroundings.

11 Thank you.

12 MR. CHAVEZ: Thank you, Ms. Chavez.

13 It's good to see so many Chavezes speaking up.
14 Strong name.

15 PETER CALVERT

16 having been first duly sworn or affirmed, gave
17 public comment as follows:

18 PUBLIC COMMENT

19 THE REPORTER: State and spell your full name,
20 please.

21 MR. CALVERT: Peter Calvert, C-A-L-V-E-R-T.

22 Good afternoon, Chairman and members of the
23 committee.

24 A little bit about myself. I'm from Ojo
25 Caliente, kind of like northwest from San Juan Pueblo,

1 where I live. I'm a concerned member of the public, and
2 I am here today to provide a public comment in support
3 of clean water.

4 I care about clean water because growing up
5 alongside the Rio Grande and around it, I appreciate its
6 properties it provides us with its abilities to provide
7 arroyos and other traditional and cultural uses for me.

8 Being part Native American from San Juan
9 Pueblo, formerly known as Ohkay Owingeh, I am
10 particularly concerned about a proposal to allow
11 temporary or weaker standards downstream from polluters.

12 To protect communities downstream from
13 discharges, I urge the Water Quality Control Commission
14 to reject this temporary standard proposal. We believe
15 that there are already structures in place like
16 compliance schedules that provide the needed flexibility
17 to dischargers.

18 In addition, I urge you as a Commission to
19 ensure that fish and the many recreational and economic
20 interests that depend on healthy fish populations are
21 protected by replacing the current much less protective
22 hardness-based on aluminum standard with the
23 EPA-recommended aluminum criteria as proposed by Amigos
24 Bravos.

25 Finally, I would like to urge you to reject

1 the proposal to weaken water quality standards in small
2 ponds and wetlands, downstream communities that depend
3 on clean water for drinking, irrigation and recreation.

4 I depend on clean water on a daily basis for
5 all my basic needs and other cultural traditions and
6 using the Rio Grande, and also for my personal
7 enjoyment.

8 And in addition to small ponds crisis, we need
9 to please ask New Mexico Water Quality Control
10 Commission to reject the proposed proposal to weaken
11 standards for small ponds and wetlands specifically in
12 Taos, Carson National Forest and Jemez Mountains, where
13 animals drink from and farmers use for irrigation, for
14 plants and animals, and also for cultural uses, because
15 they store water for future uses as they act as a sponge
16 for watersheds.

17 In favor for saving and protecting these areas
18 for animals and Native American traditions uses we have
19 been using for a millennium.

20 Thank you for the opportunity to provide a
21 public comment.

22 MR. CHAVEZ: Thank you, sir.

23 MR. CALVERT: Thank you.

24

25

1 VERONICA RAMIREZ

2 having been first duly sworn or affirmed, gave
3 public comment as follows:

4 PUBLIC COMMENT

5 THE REPORTER: State and spell your full name,
6 please.

7 MS. RAMIREZ: My name is Veronica Ramirez,
8 V-E-R-O-N-I-C-A R-A-M-I-R-E-Z.

9 Hello. My name is Veronica, like I stated
10 before. I live in Ohkay Owingeh Pueblo.

11 I am concerned about the contamination in the
12 water because it affects everyone, future generations.
13 What happens to it now will affect it forever. It won't
14 only affect us. It also affects our surroundings, fish,
15 ecosystems and animals that drink the water.

16 So we are not only contaminating ourselves,
17 but the water -- the animals and plants who don't have a
18 say in what we do to the water. They just are affected
19 by it.

20 We are on their planet, in a sense. They were
21 here long before us, and we come and corrupt their
22 living systems, their way of life, by contaminating
23 their water and giving the water to our plants in which
24 we all consume. We are their guests. They have been
25 very patient with us, and I think we need to start

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1 giving back to everything, know we appreciate them.

2 I would like to propose that you make stricter
3 water standards to protect us, our future generations
4 and all life in general, to protect the aquatic life,
5 too.

6 Thank you for your time.

7 MR. CHAVEZ: Thank you, Ms. Ramirez.

8 MAYA PENA

9 having been first duly sworn or affirmed, gave
10 public comment as follows:

11 PUBLIC COMMENT

12 THE REPORTER: State and spell your name,
13 please.

14 MS. PENA: Maya, M-A-Y-A, Pena, P-E-N-A.

15 Hello. My name is Maya, and I live in Santa
16 Clara Pueblo. I am a concerned member of the public,
17 and I'm here today to provide a public comment in
18 support of clean water.

19 I care about clean water because I want every
20 generation after me to use our rivers without
21 restrictions and a fear of pollution that lies beneath
22 the water's surface. I may be young, but I know that
23 every single action of today will affect the waters of
24 tomorrow.

25 We use these rivers and streams on a daily

1 basis. We use it to water our crops. We play in it
2 during the summertimes. And we use it in our
3 ceremonies.

4 I pray that as our current leaders you
5 remember that when you make decisions on this council,
6 that water is connected to everything on this earth.

7 And thank you for the opportunity to provide
8 this public comment.

9 MR. CHAVEZ: Thank you very much.

10 STACEY LORETTO

11 having been first duly sworn or affirmed, gave
12 public comment as follows:

13 PUBLIC COMMENT

14 THE REPORTER: State and spell your name,
15 please.

16 MS. LORETTO: My name is Stacey Loretto
17 S-T-A-C-E-Y L-O-R-E-T-T-O.

18 Good afternoon, Chairman and members of the
19 committee.

20 My name is Stacey Loretto, as I said. I live
21 in Continental Divide, New Mexico, member of the Navajo
22 Nation.

23 I am concerned -- I'm a concerned member of
24 the public, and I am here today to provide a public
25 comment in support of clean water.

1 I care about clean water because not only do
2 humans depend on water, but also wildlife. I am
3 particularly concerned about the proposal that would
4 allow temporary or weaker standards downstream. I am
5 particularly concerned about a proposal that would allow
6 temporary or weaker standards downstream from polluters.

7 To protect communities downstream from
8 discharges, I urge the Water Quality Control Commission
9 to reject this temporary standards proposal. Us Native
10 Americans depend on clean water for traditional purpose.
11 It is very important to keep our water resources clean.

12 Thank you for the opportunity to provide my
13 comment.

14 MR. CHAVEZ: Thank you very much.

15 BEATA TSOSIE-PENA

16 having been first duly sworn or affirmed, gave
17 public comment as follows:

18 PUBLIC COMMENT

19 THE REPORTER: State and spell your name,
20 please.

21 MS. TSOSIE-PENA: Beata Tsosie-Pena, B-E-A-T-A
22 T-S-O-S-I-E-P-E-N-A.

23 (Speaking not in English.)

24 With your respect, good afternoon, Chairman
25 and members of this Commission.

1 Thank you to this Water Quality Control
2 Commission for your support in protecting our precious
3 desert waters and sole source aquifer here in New
4 Mexico.

5 My name is Beata Tsosie-Pena. And I work with
6 Tewa Women United's Environmental Health and Justice
7 program. I'm also a member and resident of Santa Clara
8 Pueblo and a mother of three children.

9 It is our duty to ensure that future
10 generations have clean water inherently as part of the
11 entire water cycle, starting with the top of our
12 watershed on the Jemez Plateau.

13 As indigenous peoples, it is our cultural,
14 spiritual and human rights to have water that is
15 preserved and of quality safe for drinking, fishing, for
16 animals we will hunt and eat, for agriculture and water
17 harvesting, ceremony that requires bathing and direct
18 contact through drinking, that is pure for our
19 traditional pottery making, use of natural pigments in
20 artistry, and safe for our plant spirits that we also
21 harvest for food, tea and medicine.

22 Women's bodies are more vulnerable to
23 toxicity, and it is through the waters of our mothers
24 that we come into this world. We nourish our children
25 by breast milk that can also be a source of concentrated

1 toxicity when mothers are overexposed to contamination
2 in cumulative and multiple exposures to toxicity over
3 time.

4 It is part of our reproductive rights to have
5 strict environmental safety regulations to protect what
6 we must need in order to raise our children in healthy,
7 clean environments and so that they are born as healthy
8 as possible right from the start. In order to raise and
9 birth healthy babies, our waters must have the highest
10 standard of uncompromising protection from now and into
11 the future.

12 Tewa Women United is in support of adopting
13 Amigos Bravos' proposal to strengthen the aluminum
14 standard. The equation used to determine the current
15 standard is based on faulty data and research, and
16 because of the reasons I already mentioned, please don't
17 let the mining industry's previous weakening of our
18 water quality standards continue. We must protect those
19 most vulnerable to contamination.

20 I also ask that this Commission reject the
21 temporary standards proposal that would allow polluters
22 to apply for weaker standards in the waters into which
23 they enact their environmental violence. In the very
24 least, please ensure that temporary standards don't
25 apply to discharges.

1 I'm asking for protection of our small ponds
2 and wetlands which are the foundation for the beginning
3 of our watershed and all life. They must remain free
4 from pollution and remain as strongly protected as the
5 rest of our waters. Please reject the proposal to
6 weaken standards of protection for small ponds and
7 wetlands.

8 We are also in support of increased protection
9 for ephemeral and intermittent streams that flow through
10 Los Alamos National Laboratories. While they may not
11 flow year-round, they are very active during storm and
12 monsoon seasons, and they're active below ground. These
13 streams lead into our Rio Grande which is used for
14 drinking water for Santa Fe and Albuquerque communities.

15 Please ensure that no further harm comes to
16 our waters as a result of the lab's ongoing production
17 and environmental violence. Violence to our Mother
18 Earth could result in violence to the bodies of women,
19 girls and their unborn. When this inner circle of life
20 givers are protected, we protect us all.

21 Thank you for your support and strengthening
22 our water quality and for all your hard work.

23 (Speaking not in English.)

24 Thank you very much.

25 MR. CHAVEZ: Thank you.

1 Is there any further public comment?

2 Seeing none, I want to thank everybody who has
3 provided public comment and remind you of how important
4 this is as a part of our public process. So thank you
5 for coming.

6 At this moment, I think we're going to
7 conclude today's hearing and reconvene tomorrow at
8 9:00 a.m. for hopefully a short day.

9 Thank you.

10 (Proceedings adjourned at 5:47 p.m.)

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1 STATE OF NEW MEXICO)
2) ss.
3 COUNTY OF BERNALILLO)
4
5

6 I, CHERYL ARREGUIN, the officer before whom the
7 foregoing proceeding was taken, do hereby certify that
8 the witnesses whose testimony appears in the foregoing
9 transcript were duly sworn or affirmed; that I
10 personally recorded the testimony by machine shorthand;
11 that said transcript is a true record of the testimony
12 given by said witnesses; that I am neither attorney nor
13 counsel for, nor related to or employed by any of the
14 parties to the action in which this proceeding is taken,
15 and that I am not a relative or employee of any attorney
16 or counsel employed by the parties hereto or financially
17 interested in the action.

18
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