1   STATE OF NEW MEXICO

2   BEFORE THE WATER QUALITY CONTROL COMMISSION

3   No. WQCC 14-05(R)

4

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

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13   TRANSCRIPT OF PROCEEDINGS

14   BE IT REMEMBERED that on the 14th day of October,

15   2015, this matter came on for hearing before Morris

16   Chavez, Hearing Officer, and the Water Quality Control

17   Commission, at the State Capitol Building, Room 307, 490

18   Old Santa Fe Trail, Santa Fe, New Mexico, at the hour of

19   9:06 AM.

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21   Volume 2

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 1            E X H I B I T S          ADMITTED

 2   FREEPORT MCMORAN CHINO MINES COMPANY EXHIBIT:

 3   A.  STSIU Surface Waters Maps                    401

 4   B.  2013 Revised Site-Specific Copper Toxicity

 5       Model Report for Smelter Tailings Soils IU

 6       Drainages - Chino Administrative Order on

 7       Consent                                      401

 8   C.  Fulton and Meyer "Development of a Regression

 9       Model to Predict Copper Toxicity to Daphnia

10       Magna and Site-Specific Copper Criteria

11       Across Multiple Surface Water Drainages

12       in an Arid Landscape"                        401

13   D.  Meyer Resume/CV                              401

14   E.  Meyer Direct Written Testimony               401

15   F.  Fulton Resume/CV                             401

16   G.  Fulton Direct Written Testimony              401

17   H.  Chino's First Amended Rule Proposal          401

18   I.  Chino's Conditional Alternative Rule Proposal 401

19   J.  Public Notice for CWG                        401

20   K.  9/16/14 AOC Community Work Group Minutes      401

21   L.  9/17/13 AOC Community Work Group Minutes      401

22   M.  5/20/14 AOC Community Work Group Minutes      401

23   N.  Slide Presentation                           401

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1   MR. DOMINGUEZ: If we can get settled in, we

2   will get started back up and reconvene the Water Quality

3   Control Commission.

4   I will turn it over to the Hearing Officer to

5   resume our hearing.

6   Mr. Hearing Officer.

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

8   Good morning.

9   We're back on the record in the matter of WQCC

10   14-05(R), the triennial review.

11   Before we begin with the Commission's cross --

12   continued cross-examination of the NMED's witnesses, I

13   would like to open the floor once again for

14   non-technical public comments.

15   Is there anybody in the audience that would

16   like to present public comment?

17   Seeing none, counsel for NMED, are your

18   witnesses ready?

19   MR. VERHEUL: They are.

20   MR. CHAVEZ: Thank you.

21   Mr. Chairman, Members of the Commission, you

22   may continue with your cross-examination.

23   MR. DOMINGUEZ: Okay. We will resume with any

24   additional or follow-up questions for the Environment

25   Department.

1   So I will query the Commission for folks that

2   have additional questions.

3   MS. DeROSE-BAMMAN: I do.

4   MR. CHAVEZ: Commissioner DeRose-Bamman.

5   MS. DeROSE-BAMMAN: Okay. Thank you.

6   SHELLY LEMON, KRISTINE PINTADO, JODEY

7   KOUGIOULIS AND BRYAN DAIL

8   after having been previously duly sworn under oath,

9   were questioned and testified further as follows:

10   CONTINUED CROSS EXAMINATION BY COMMISSION MEMBERS

11   MS. DeROSE-BAMMAN: Good morning.

12   MS. PINTADO: Good morning.

13   MS. DeROSE-BAMMAN: I want to start -- I have

14   like simple things, and then I'll just go from the

15   beginning to the end, and if the other Commissioners

16   want to add anything to it, please let me know.

17   Under the definitions -- I remember reading in

18   the -- some of the testimony, I believe at one point,

19   where there may have been a modification to the

20   definition of E. coli.

21   MS. PINTADO: The enumeration method for E.

22   coli, we added most probable number as a method.

23   MS. DeROSE-BAMMAN: But the definition of E.

24   coli itself wasn't amended at all?

25   MS. PINTADO: No.

1   MS. DeROSE-BAMMAN: It was just the definition

2   of the MPN for the most probable number for a hundred

3   milliliters. Okay.

4   Back to the temporary standards language. And

5   I want to just reiterate yesterday what you said about

6   having another tool in the toolbox, and I agree, it is

7   important to explore those options and it is -- it is in

8   the proposal.

9   I want to ask a couple of questions on how you

10   envision this working.

11   MS. PINTADO: Okay.

12   MS. DeROSE-BAMMAN: So I agree yesterday you

13   mentioned that there were no -- there is no time limit

14   for the length of the standard, it will be kind of case

15   by case, you know, how long does the entity need to have

16   it.

17   The -- I have questions on some of the

18   substance of the work plan, so referring to paragraph

19   5 -- the paragraphs 5 and 6 that are merged. This is on

20   page four of your second amended proposed change --

21   changes document.

22   Again, this is Section 20.6.4.10(F), Section 5

23   and 6 that are merged together or the new 5.

24   You had asked -- the language describes

25   "including baseline water quality."

1   Can you describe what you mean by that, and

2   what it would look like?

3   MS. PINTADO: That could include ambient

4   surface water quality. Much of that data is already

5   available through several databases, all publicly

6   accessible.

7   MS. DeROSE-BAMMAN: So you're not -- I mean,

8   is there an amount of data that would be kind of

9   envisioned?

10   MS. PINTADO: I think that would be case by

11   case.

12   MS. DeROSE-BAMMAN: Okay. And primarily

13   ambient surface water quality.

14   Would it also include effluent qualities that

15   you're looking for?

16   MS. PINTADO: I think it's appropriate to also

17   include effluent, and in some cases upstream and

18   downstream ambient data from the point of effluent.

19   MS. DeROSE-BAMMAN: Okay. Yesterday, we

20   talked a little bit about kind of the scenario of when

21   the temporary standard would come in the process, the

22   permitting process, so to speak.

23   So would you mind walking -- let's say for a

24   municipality who now wants to request a temporary

25   standard for nutrients, so any town in New Mexico. Kind

1   of -- can we walk through a scenario of how this might

2   come into play?

3   MS. PINTADO: It may come into play if there

4   is a new or more stringent requirement that results in a

5   water-quality-based effluent limit that started either

6   through the TMDL process or in the reasonable potential

7   stream.

8   MS. DeROSE-BAMMAN: Okay. So let's say the --

9   the community has not -- doesn't have any nutrient

10   limits in the permit right now, but the water had been

11   assessed based on monitoring within the last year or

12   two. Right?

13   MS. PINTADO: Uh-huh.

14   MS. DeROSE-BAMMAN: So then the assessment

15   comes in that the water is impaired for nutrients.

16   So then because it's the narrative criterion,

17   it won't -- there is no -- usually technology-based

18   limits to be imposed for nutrients yet for these

19   entities, so it's only water quality based.

20   So then the impairment is -- is designated for

21   that stream. Then the permit is up for renewal.

22   So kind of -- can you walk me through those

23   steps of how -- of how maybe the condition would get

24   into the next version of the permit so then we would

25   have -- in general. I don't expect --

1   MS. PINTADO: Right.

2   The provision hasn't been adopted yet, but

3   we've thought through these scenarios --

4   MS. DeROSE-BAMMAN: Right.

5   MS. PINTADO: -- trying to go through that in

6   our minds as well.

7   The petitioner would hopefully approach the

8   Department first about the intention to develop a work

9   plan for a temporary standard.

10   We imagine the scenario most common would --

11   especially for the nutrients would be a demonstration of

12   economic hardship based on Factor 6 of the federal

13   regulations.

14   MS. DeROSE-BAMMAN: But do we have the number

15   yet at that point?

16   MS. PINTADO: I'm sorry?

17   MS. DeROSE-BAMMAN: Do we have the number, the

18   target, where they know -- the entity would know what

19   level they need to meet?

20   MS. PINTADO: If it were based on a TMDL -- I

21   probably should ask Shelly to respond to this, as it

22   involves more implementation and permitting.

23   If you don't mind.

24   MS. DeROSE-BAMMAN: No, not at all.

25   MS. PINTADO: Thank you.

1   MS. LEMON: If there is not a TMDL -- if there

2   is a TMDL in place, they would definitely have a

3   number -- a waste load allocation that would be applied

4   in their next permitting cycle.

5   If they do not have a TMDL, they could request

6   that we provide a waste load allocation so they kind of

7   get an idea of what -- I mean, the TMDL would be coming

8   if -- if it's impaired, it's just the sequence of events

9   might be different.

10   So if it's impaired, they know it's impaired

11   for nutrients, but the TMDL has not been written yet,

12   but their permit is going to be coming up for renewal

13   prior to that, they could request the Department

14   evaluate the situation and provide a waste load

15   allocation so they could figure out if they should be

16   applying for a temporary standard.

17   And that's something that we've provided to

18   other communities before without necessarily a TMDL, and

19   it would just be kind of a -- it's not an official TMDL

20   or official waste load allocation, but it gives you an

21   idea of, you know, a potential target.

22   MS. DeROSE-BAMMAN: Okay. And I agree with

23   you, because it still needs to go through the public

24   participation process.

25   MS. LEMON: Right.

1   MS. DeROSE-BAMMAN: And then also the WQCC

2   would need to adopt --

3   MS. LEMON: Right.

4   MS. DeROSE-BAMMAN: -- as an amendment to the

5   water quality management plan.

6   Okay. So once -- because I can -- if a

7   permittee then -- whether or not the TMDL has been

8   issued, you still think that -- I mean, is it true that

9   the EPA may use the draft approach or the impairment and

10   still implement -- or they might implement a new --

11   propose a nutrient criterion or limit -- an effluent

12   limit in the permit, even though a TMDL hadn't been

13   officially adopted yet?

14   MS. LEMON: They will most likely -- or the

15   state, in its certification process, will most likely

16   implement a water-quality-based effluent limit for

17   nutrients based on what they are currently achieving, if

18   there is no TMDL. And that goes to the anti-degradation

19   review for impaired waters.

20   MS. DeROSE-BAMMAN: I see.

21   MS. LEMON: You cannot increase the loading or

22   degrade the water quality any further, and so we would

23   ensure, either through the EPA permitting process or the

24   state certification, that that is not occurring.

25   MS. DeROSE-BAMMAN: Okay. So does the

1 anti-degradation review ensure that there is no -- that

2 if a temporary standard does get approved that there is

3 no increased load to the -- to the receiving water?

4   MS. LEMON: That is -- that is correct.

5   MS. DeROSE-BAMMAN: So one of the questions

6 yesterday I remember hearing was that there was -- you

7 know, allowing a temporary standard could allow an

8 increase of the pollutant to the stream, but with the

9 anti-degradation review, does that prevent that from

10 happening?

11   MS. LEMON: Yes.

12   MS. PINTADO: Yes.

13   MS. LEMON: It holds the line at what is

14 currently being input into that water body --

15   MS. DeROSE-BAMMAN: Okay.

16   MS. LEMON: -- at the minimum.

17   MS. DeROSE-BAMMAN: There is still some

18 discussion on how to come up -- I mean, have you just

19 thought about how you would come up with what that

20 level is, because there is a lot of -- you know, I mean,

21 you monitor only so much, you may only have a limited

22 data set. So have you thought about -- I mean, what's

23 the basis of that?

24   MS. LEMON: For the water quality effluent

25 limit?

1   MS. DeROSE-BAMMAN: Yes.

2   MS. LEMON: Well, we have information from the

3   discharge monitoring reports that, under an NPDES

4   permit, the facility needs to provide every month or

5   every quarter, it depends on their permit, their

6   reporting requirements in their permit, but we do have

7   effluent data from that, and if nutrients are a problem,

8   we usually set monitoring requirements so we get that

9   data for the next permit to help with water-quality-

10 based effluent limits.

11   MS. DeROSE-BAMMAN: But there may be a case

12 where the -- the permittee -- I mean, not all permittees

13 monitor for total phosphorus or --

14   MS. LEMON: That's correct.

15   MS. DeROSE-BAMMAN: -- total nitrogen.

16   MS. LEMON: That's right.

17   MS. DeROSE-BAMMAN: So you may not -- I mean

18 we don't have -- do you have that information in all

19 cases that --

20   MS. LEMON: We -- if the wastewater treatment

21 plant is not monitoring, the Surface Water Quality

22 Bureau likely has some data, effluent data. It would be

23 limited, based on our water quality surveys. But we

24 typically do monitor effluents when we do a watershed

25 water quality survey.

1   In that case, it would be more limited, if

2   it's not a monitoring requirement in the permit.

3   MS. DeROSE-BAMMAN: And how often do you do

4   the surveys?

5   MS. LEMON: Right now, we're doing --

6   approximately every eight years, we will be in a

7   watershed, a large watershed.

8   MS. DeROSE-BAMMAN: All right. With the

9   temporary standard, if -- if the entity knows that they

10   -- they are not going to be able to meet the proposed

11   limits or whatever that -- you know, that that would be

12   very challenging for whatever reason, and they want to

13   pursue this option, it's a petition to the Commission.

14   MS. LEMON: Uh-huh.

15   MS. DeROSE-BAMMAN: Does it have to wait for a

16   triennial review to be --

17   MS. LEMON: No.

18   MS. DeROSE-BAMMAN: -- to be approved?

19   And then it would be an amendment to the -- so

20   it is an amendment to the standard. So you don't have

21   to wait for the triennial review to amend the standard?

22   MS. LEMON: No. You can have rule making

23   outside of the triennial review.

24   MS. DeROSE-BAMMAN: Okay. In the new

25   paragraph 8 at the bottom of page four, this one, it --

1   "All temporary standards are subject to a required

2   review during each succeeding review of water quality

3   standards," and then the highlighted text, "The petition

4   shall provide" -- "The petitioner shall provide a

5   written report to the Commission documenting the

6   progress of proposed actions."

7   Is there a frequency, or is that just when the

8   next triennial review begins?

9   Can you explain that paragraph a little bit

10   more?

11   MS. PINTADO: I could try.

12   As in other examples, I could say from other

13   states that we've seen, it would probably be

14   incorporated into the NPDES permit, maybe a report

15   required at least every year.

16   The information, as a temporary standard, is

17   incorporated into an NPDES permit and reporting is

18   required. That information would be available to the

19   public as well through the PCS, permit compliance

20   system, through their discharge monitoring reports.

21   I don't know if I answered your question

22   completely.

23   MS. DeROSE-BAMMAN: But as you envision this

24   provision, it would be on a regular frequency, probably

25   no more frequently than annual, and you expect the

1 condition to then be solidified in the NPDES permit

2 itself?

3   MS. PINTADO: Correct.

4   MS. DeROSE-BAMMAN: It's not just the language

5 from the standards?

6   MS. PINTADO: Right.

7   MS. DeROSE-BAMMAN: And then it will be a

8 challenge, once this is approved, to get EPA to modify

9 or to renew the permit at the right timing that --

10   MS. PINTADO: That is part of the reasoning

11 for incorporating the new Section H.12 -- Section 12,

12 I'm sorry, H, right -- and to give EPA the positive

13 indication that the Commission would -- it is the policy

14 of the Commission to allow EPA to incorporate that into

15 the permit.

16   Since that time, EPA has also clarified, in

17 its final rule that we discussed yesterday, that these

18 temporary standards would be incorporated into NPDES

19 permits, if approved by EPA.

20   MS. DeROSE-BAMMAN: I'm going to --

21   MR. HUTCHINSON: On the point of temporary

22 standards, if you're going to go to another topic --

23   MS. DeROSE-BAMMAN: I wasn't, but go ahead.

24 I'm still on that one.

25   MR. HUTCHINSON: Okay.

1   Under 3, it says -- this is "Designated uses

2   shall not be modified on a temporary basis," and

3   "Designated use attainment as reported in the Clean

4   Water Act Section 305(b)/303(d) Integrated Report shall

5   be based on the original standard and not on a temporary

6   standard."

7   Maybe I'm confused, but if we still have to

8   attain the designated use, what's the purpose of the

9   temporary standard?

10   MS. PINTADO: The purpose of the temporary

11   standard is to maintain, as Shelly pointed out, the

12   existing -- the existing condition --

13   MR. HUTCHINSON: Uh-huh.

14   MS. PINTADO: -- so that the use is not

15   degraded further if it is impaired.

16   In the temporary standard, which may involve

17   the criteria, that would be represented as a condition.

18   MS. LEMON: I'm going to clarify a little bit.

19   With the temporary standard, we believe that

20   the standard -- the designated uses and criteria

21   associated with the water is correct.

22   We are recognizing that it might take time to

23   achieve that standard, and so the temporary standard

24   allows that time to achieve the standard.

25   We feel that the underlying standard is

1 correct; however, there may be other external

2 circumstances that are not allowing for attainment of

3 that standard at the present time, but at some future

4 date, we would be able to achieve that standard.

5   MR. HUTCHINSON: Let me give you a quick

6 example.

7   We have soil and water conservation districts

8 that are preparing to do erosion control which involves

9 structures and some of these are in perennial streams.

10 Obviously, the work needed to accomplish that is going

11 to create disturbances in that stream system.

12   Would we be looking at having to apply for a

13 temporary standard during that phase of work?

14   MS. LEMON: I think it depends on how long

15 that disturbance would be occurring, and that would be

16 through the 4- -- I mean, yeah, they would apply for a

17 dredge and fill permit, which allows limited disturbance

18 for these types of activities.

19   So I think it's dependent on the time frame

20 that you're looking at. If it's going to be a longer

21 time frame, then a temporary standard would probably be

22 required. If it's a short disturbance, you know, you're

23 going in and you're doing some maintenance or

24 improvements, but it's through the 404 process, then you

25 have that process as well.

1   MR. HUTCHINSON: Okay. Thank you.

2   MR. KOUGIOULIS: And it may also be dependent

3   on whether or not you're considered a point source,

4   right. I mean, not all activities are considered point

5   source, so there are many restoration activities that

6   are basically not point source, they are non-point

7   source, and so they wouldn't fall under a permit or

8   wouldn't be under a general permit which will allow for

9   restoration.

10   MR. HUTCHINSON: Okay. Thank you. Thank you.

11   MS. DeROSE-BAMMAN: Can -- I'm going to go

12   back to paragraph -- the new paragraph 6. The language

13   says, "The Commission may condition the approval of a

14   temporary standard by requiring additional monitoring,

15   relevant analyses, the completion of specific projects,

16   submittal of information, or any other actions."

17   How do you envision that working? Like in

18   what form would -- I mean, we would require it, but then

19   how does it get imposed on the entity and where is it

20   documented that -- those exact requirements, besides in

21   the Commission records? Do you have --

22   MS. PINTADO: Do you want to --

23   MS. LEMON: Well, I think, you know, the

24   petitioner is required to reevaluate and update during

25   the triennial review process, so I would envision any

1   conditions that the Commission requires as a part of the

2   temporary standard would be updated at that time, and

3   presented to the Commission during that time.

4   　　　　　MS. DeROSE-BAMMAN: Okay. So the Commission,

5   we have -- we have something in front of us. We say,

6   okay, we believe that this is justified, but we want you

7   to do monthly monitoring for, you know, upstream,

8   downstream, and we want you to do maybe a couple other

9   indicative parameters instead of just total phosphorus

10   and total nutrients and nitrogen, and we think of

11   another creative project that we want you to do, too,

12   not that you guys wouldn't have thought about it, but

13   maybe we'll think of something else.

14   　　　　　So how does that get -- because we're not the

15   permitting authority, so how does that get entered?

16   　　　　　I'm just really trying to understand how these

17   conditions might materialize or be manifested, you know,

18   in reality for a permittee, so after the Commission

19   acts.

20   　　　　　Do you have a -- what would you envision?

21   　　　　　MS. PINTADO: The Commission would either

22   approve or disapprove the changes to the temporary

23   standard with those revisions, and they may be submitted

24   to EPA for review, and depending on where it fits in the

25   progress of the work plan, EPA will -- they call it a

1 reevaluation.

2   If it significantly or substantially revises

3 the temporary standard, they may want to, you know,

4 reapprove that. But if you are adding progressive work

5 to the work plan that improves water quality, I think

6 that would be a positive improvement that they would be

7 likely to approve.

8   MS. DeROSE-BAMMAN: And if the condition -- if

9 the Commission specifies additional conditions and the

10 entity does not meet those conditions, who takes

11 enforcement action?

12   MS. PINTADO: I believe it would be us first.

13   MS. LEMON: Well, if they are not meeting the

14 conditions of their permit, it's going to be EPA.

15   MS. DeROSE-BAMMAN: If they -- if those

16 conditions got translated into permit conditions.

17   MS. LEMON: Yeah, and we would encourage that,

18 as the state certification process, because that's part

19 of our temporary standard that this Commission

20 theoretically has adopted and approved.

21   MS. DeROSE-BAMMAN: Okay. Thank you.

22   One of the questions yesterday was about

23 streams with multiple dischargers, and I believe the

24 question was -- there was only one -- one of the

25 dischargers, if they are pursuing this temporary

1   standard, the rest of the dischargers of that stream do

2   not need to submit a work plan, and yet if the temporary

3   standard -- is this correct, if the temporary standard

4   is approved, then it would apply to all dischargers that

5   discharge to that segment?

6   Is that how you envision it working?

7   MS. PINTADO: If they didn't already have it

8   in their permit, yes.

9   MS. LEMON: The temporary standard applies to

10   the stream. If there are multiple dischargers in the

11   stream, first you have to determine if they are

12   discharging the pollutant.

13   If an entity or a petitioner comes forward

14   with a petition to adopt a temporary standard, during

15   the public review process we would be contacting the

16   other dischargers to determine if they should be

17   involved in this temporary standard process through the

18   public participation process and also, you know, just

19   the review of the water quality standard.

20   If the permittee is currently meeting their

21   effluent limitations, we, during the state certification

22   process, would encourage the same limits. We wouldn't

23   want them to be able to increase or have less stringent

24   limits if they are currently able to meet them.

25   And plus with the anti-degradation review, you

1 know, you'd have to determine what the availability of

2 that assimilative capacity would be for the stream.

3   So there are several different processes that

4 would occur along the way. It doesn't automatically

5 give a discharger the ability to have that temporary

6 standard in their permit. They would have to be part of

7 the process or meet their current effluent limits.

8   MS. DeROSE-BAMMAN: And are -- for nutrients,

9 in particular, are there many dischargers with nutrient

10 limits, and is effluent limitations imposed?

11   MS. LEMON: There is a handful, yeah.

12   MS. DeROSE-BAMMAN: I mean, there aren't

13 many --

14   MS. LEMON: There aren't many.

15   MS. DeROSE-BAMMAN: -- where there is multiple

16 dischargers to a segment anywhere in the state, so that

17 would be pretty limited, but --

18   MS. LEMON: Yeah.

19   MS. DeROSE-BAMMAN: I do have a few more

20 questions on this one.

21   I want to make sure I understand better the

22 paragraph 10 -- the new 10 on page five -- at the top of

23 page five of your second amended proposed changes.

24   It seems that this language -- that the

25 testimony -- your direct testimony, on page 26 -- is

1 your direct testimony on page 26, Ms. Pintado,

2 consistent with that language? So I think it was lines

3 one and two, page 26-89 of your direct testimony. I

4 guess it's general.

5   So your direct testimony, the -- this number

6 four, the -- let's see, this is referring to the

7 significant changes to the language. Number four, "The

8 duration is justified in the petition and review during

9 the subsequent triennial, instead of expiration at the

10 next triennial."

11   So this language, number -- the new Subsection

12 10, or paragraph 10, "A temporary standard shall expire

13 no later than the date specified in the approval of the

14 temporary standard. Upon expiration, the original

15 standard becomes applicable."

16   So you're basically saying -- well, I'll let

17 you say what you're saying.

18   MS. PINTADO: We're saying that the temporary

19 standard is subject to review as any other water quality

20 standard, if I understand your question. And what was

21 the second half of your question? I'm sorry.

22   MS. DeROSE-BAMMAN: I just wanted to make sure

23 that your testimony on page 26 was consistent with this

24 new language.

25   And I realize the testimony was written --

1 well, but that language hadn't changed, so --

2 　　　　MS. PINTADO: Right.

3 　　　　MS. DeROSE-BAMMAN: So you're allowing -- are

4 you allowing -- based on this language, it's beyond just

5 the triennial review, and so it's no longer having to be

6 reviewed and reapproved every triennial review process?

7 　　　　MS. PINTADO: It is reviewed during the

8 triennial review. For any temporary standard that

9 extends beyond five years, EPA requires what they call a

10 reevaluation. If the temporary standard has justified a

11 timeline beyond that period, longer than five years,

12 then it would be subject to review or reevaluation

13 during the triennial review.

14 　　　　MS. LEMON: But that doesn't mean it will

15 change.

16 　　　　MS. PINTADO: Correct.

17 　　　　MS. DeROSE-BAMMAN: Okay. That's all -- those

18 are all the questions I have on the temporary standard.

19 　　　　Does any --

20 　　　　MR. HUTCHINSON: I have one or two.

21 　　　　MR. DOMINGUEZ: Commissioner Hutchinson.

22 　　　　MR. HUTCHINSON: How much additional work

23 would be required to get through this process -- in

24 other words, petitioning the Commission, having the

25 Environment Department review, and how much technical

1 expertise would you anticipate that would be needed on

2 behalf of the applicant?

3   MS. PINTADO: I think that would be on a

4 case-by-case basis. We have a handful of candidates

5 that we think this may be beneficial to. It depends on

6 the demonstration; most likely, an economic

7 demonstration.

8   How much more work would that involve? There

9 are worksheets in the water quality management plan and

10 guidance available. Other states have also incorporated

11 this process. I don't know that I can put a number to

12 it.

13   MR. HUTCHINSON: Because a lot of the -- I'm

14 looking at it from the standpoint of soil and water

15 conservation districts that have an annual budget of

16 around $7,000, maybe $8,000.

17   You know, what -- what kind of technical

18 expertise are they going to have to be bringing on

19 board, and are they going to be able to even take

20 advantage of this process?

21   MS. PINTADO: I can't speak to the soil

22 conservation practices or how that would impact those

23 particular activities. I -- do you --

24   MR. KOUGIOULIS: Do soil conservation

25 districts have NPDES permits?

1   MR. HUTCHINSON: No.

2   MR. KOUGIOULIS: Okay.

3   MR. HUTCHINSON: But we may be impacting

4   stream systems that do have NPDES.

5   MR. KOUGIOULIS: But as a non-point then -- as

6   a non-point source. As activities within a watershed?

7   MR. HUTCHINSON: Yes.

8   MR. KOUGIOULIS: Okay.

9   MR. HUTCHINSON: And they could have point

10   sources.

11   So I'm just wondering, you know, if -- and you

12   have small municipalities, villages, et cetera, that

13   also would fall into that same -- you know, that would

14   have sewage treatment plants or whatever.

15   I'm looking at the Commission here and our

16   policies on hearings, scheduling them for meeting days,

17   and I can see this taking several months, if not maybe a

18   year to get through the process, given that you're going

19   to have to have public comment and all of the other

20   things.

21   Okay. Thank you.

22   MS. PINTADO: Okay.

23   MR. HUTCHINSON: I'm -- I'm hoping that there

24   are entities that can take advantage of this, but I can

25   see where others are going to have a great deal of

1   difficulty.

2   MR. DOMINGUEZ: Commissioner Waters, followed

3   by Commissioner Sayer.

4   MS. DeROSE-BAMMAN: I have more.

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

6   You mentioned earlier that other states have

7   incorporated this process to where a -- let's say a

8   municipality comes forward and they need to show that

9   there is an economic hardship under the -- what was it,

10   Section 6.

11   MS. PINTADO: Yes, sir.

12   MR. WATERS: Are those states states that have

13   primacy, or are those states states that delegate that

14   to the EPA?

15   MS. PINTADO: Both.

16   MR. WATERS: How is it working in the ones

17   that delegate to the EPA?

18   I'm not -- you know, I know -- I know that

19   when the states have primacy over their permitting, they

20   have a little more latitude.

21   I think I'm somewhat concerned that a town --

22   a small town or a small entity goes through the process,

23   gets all the way down the road -- and you know there is

24   an involved process to go from a standard to finally

25   saying your permit, which is what they have to deal with

1   on a regular basis. Sometimes these municipalities also

2   don't find out until right before the permit jumps in

3   their lap, you know, especially the small ones. I've

4   been the recipient of one of those pleasant events.

5   So, you know, I think that's something that as

6   a Commission we need to be concerned about, is how is

7   this going to work and what is the chance that this is

8   going to get overturned, that you go through all of this

9   work and the EPA says, "Nay, that's okay," and we're

10   getting sued, and you're not -- you're not -- if you're

11   implementing your standards, a third-party lawsuit comes

12   in and basically the temporary standard gets tossed out

13   because the EPA disagrees with it.

14   I think that's the thing that I want to see,

15   is if the state and the Commission go through this work,

16   what is the chance that that's going to make it to the

17   thing that -- the point source C, which is their permit,

18   because it's really tough for a small town to spend a

19   lot of money on, you know, putting one of the experts in

20   -- and they do, they have -- you know, they go through

21   the league or have some experts, they go through the

22   process, and a year later they get their approval for

23   their temporary standard, it makes it all the way down

24   into a permit, and that proposed permit goes over to

25   Dallas, and it comes back with a lot of the changes that

1 basically bring us back to the very beginning.

2   So how is that going to work in the states

3 that don't have primacy?

4   MS. PINTADO: It works the same.

5   In fact, the example that I'm thinking of

6 right now is in Idaho, which is a non-delegated state,

7 they have an extremely well-done process. And I've seen

8 a more recent permit. It was drafted in 2013. It gives

9 a very clear outline in the statement of basis of how

10 that gets applied.

11   MR. WATERS: So it's the community that

12 basically came forward and said -- or a permittee that

13 came forward and said, you know, "We have an economic

14 hardship, we can't get there from here, we want to use

15 that bridge or this temporary standard to help us

16 basically phase our process in so that we're able to

17 handle it at this standard."

18   Is that how that worked? And what is the time

19 period that a community would be typically looking at?

20 A one permit time frame, a two or three? You know, I

21 mean, is there a -- is there a -- you know, I see that

22 it all requires Commission and EPA approval. But if

23 this is something that requires a standard that is a

24 hundred times, you know, more restrictive than anything

25 else in the nation, sometimes even the technology has a

1   hard time catching up.

2   So what type of time frame would you be

3   thinking about for nutrient standards, for example? And

4   that's near and dear to my heart.

5   MS. PINTADO: It depends on the situation,

6   where the entity is in their process. Some are in a

7   better position than others depending on their

8   treatment. I'd like Shelly to -- if she's willing to,

9   to step in.

10   MS. LEMON: Commissioner Waters and fellow

11 Commissioners, it -- it is dependent on the entity, the

12 petitioner, the water body, but, you know, in cases like

13 in Idaho, they have -- I think it's a 20-year work plan

14 to achieve the standard, so they are looking at really

15 longer time frames than what has typically been looked

16 at through the NPDES permitting process.

17   So you are looking at longer time frames, you

18 know, at least in the examples that we've seen, and

19 that's why the temporary standard is an avenue to help

20 achieve that -- you said "phased progress," that's

21 exactly what we're looking at doing is, you know, that

22 work plan will hold them -- it's going to be specified

23 by the petitioner what they can achieve, when they can

24 achieve it, you know, it's going to be obviously

25 discussed and go through the public participation

1 process and through the Commission to ensure that,

2 "Yeah, that's reasonable, we think you can do that," but

3 it is going to be defined by the petitioner what they

4 feel they can achieve and when, and then we will make

5 sure that they are going through those steps and making

6 progress towards that ultimate goal.

7   MR. WATERS: And the time period is

8 significant, because, as you know, sometimes it takes a

9 period of time to get a stream into a certain compliance

10 situation, and it doesn't happen overnight, and it's

11 something that, you know, the system has to adjust to

12 the treatment that's on it.

13   With the notification, as these standards go

14 into place, and if the Commission agrees to pass the

15 temporary standards, this is something that would be

16 novel to most of the permittees on the -- within the

17 State of New Mexico.

18   I know that there are several, especially the

19 smaller entities, that would definitely benefit from

20 some type of outreach from the Department to explain to

21 them the process, to show them the forms, even maybe

22 help them work through it.

23   Is the Department prepared to help facilitate

24 these other permittees to go through this process?

25 Because it doesn't do any good if you've got -- where

1   you think there is a handful of communities or somebody

2   that would apply for this, they don't know about it

3   until the last second, and you mentioned that there is a

4   point in which they would have to -- they would have to

5   come to you and request this and, you know, say that

6   they were interested in it so that a plan -- and I

7   assume that it would be well before the TMDLs, so they

8   would have to have some type of this, you know -- you

9   know, whether it's a target waste allocation load to

10 shoot for or something like that ahead of time.

11   At what point in which -- so they know their

12 permit is coming up, they are down the road. How far

13 ahead would a permittee need to approach the Department

14 in order to participate in this, from your perspective?

15   MS. LEMON: I think that would be also

16 dependent on when their permit expires, if they know the

17 stream is impaired and they are discharging the

18 pollutant of concern.

19   If the stream is impaired but they are not

20 contributing to the impairment, it doesn't -- it won't

21 affect their NPDES permit because they don't have

22 effluent limits for that pollutant.

23   But, you know, they would probably have to

24 approach, in order to get it implemented into their

25 permit before their permit expires, I would -- I would

1 probably imagine two to three years before their permit

2 expires, so that if they want it in their next permit

3 cycle or if they need it in their next permit cycle,

4 they would have to look, you know, probably two years

5 out.

6   MR. WATERS: And that's an important piece of

7 information then to go to the other question that I'd

8 asked, is the Department prepared, on the average side,

9 through the operators -- you know, through the

10 operators -- however you feel the format is best -- to

11 notify these permittees that this process is now

12 available and here's how you go through it?

13   Are you prepared now to do that? Is this

14 something that's going to require additional resources

15 on the Department's part?

16   MS. LEMON: I don't think it will require

17 additional resources. We do a lot of outreach and

18 communication with all of our operators in our state.

19 So I don't think it would be overburdensome to the

20 Bureau to provide that outreach. I think it's

21 necessary. And we would be working with any petitioner

22 that would -- I mean, we would be working with the

23 petitioner or petitioners and EPA throughout this whole

24 process to ensure that, you know, the temporary standard

25 is appropriate for the situation.

1   MR. WATERS: Okay.

2   Thank you, Mr. Chair.

3   MR. DOMINGUEZ: Commissioner Sayer, followed

4   by Commissioner Pattison.

5   MR. SAYER: Mr. Chairman, just two questions

6   and maybe a follow-up. And I'll thank you for your

7   patience with my questions.

8   My first question is, as I'm trying to

9   understand the implementation of the temporary standard,

10 as I understand or misunderstand how may be the case, an

11 existing permittee identifies -- as we just discussed

12 here with Commissioner Waters, identifies that under

13 their existing permit perhaps they are having difficulty

14 meeting the standard, right? So under the scheme as it

15 presently exists, there is no tool to address that other

16 than an enforcement action and a compliance -- kind of

17 glide path the compliance schedule as part of a

18 settlement agreement perhaps with the operator.

19   Is that a fair kind of quick summary of the --

20 as it exists right now on the landscape?

21   MS. LEMON: Uh-huh. Yes.

22   MR. SAYER: So is this tool essentially then

23 just moving -- moving -- I mean, addressing the issue

24 prior to enforcement, so instead of going through

25 enforcement now what we're doing is we're -- the

1 operator is saying, "Hey, we've got a problem, help us

2 address it"?

3   MS. PINTADO: Sure, that may be the case. Or

4 they are in a TMDL, and they are going to be required to

5 meet that end point, but they can't do it immediately.

6 So that is another scenario.

7   MR. SAYER: Okay. And so under the first

8 scenario, because we don't have primacy, EPA is the

9 enforcement agent.

10   So we're also moving those operators from

11 having to go from enforcement to EPA to going through a

12 temporary standard process -- I mean, adjustment of a

13 temporary standard with the state entity.

14   MS. LEMON: I'm not sure if that's necessarily

15 the -- I'm trying to think of -- when a temporary

16 standard would be implemented would be for new standards

17 that are going to be put into their permit that they

18 know, you know, technologically or economically, they

19 won't be able to achieve.

20   It's not necessarily, you know, right now the

21 permit is in place, we feel they can meet those

22 limits but they are not because of whatever reason,

23 improper maintenance or operation. I mean, they would

24 have to prove that there are certain reasons why they

25 can't meet that limit in order to qualify for a

1 temporary standard.

2 So when you get to the enforcement part, you

3 know, it depends on why the enforcement is occurring.

4 If it's because it's not technologically feasible or the

5 technology exists but it's exorbitantly expensive and

6 the community can't afford it, then this temporary

7 standard -- you know, that would qualify them for a

8 temporary standard. But if the enforcement is because

9 they are just not operating their plant correctly, they

10 wouldn't qualify for this.

11 So it -- it is a tool to help communities that

12 either through, you know, a TMDL process can't meet the

13 waste load allocation limits because of certain reasons,

14 but you have to ensure that, you know, you have specific

15 reasons in order to qualify for a temporary standard.

16 It's not just because.

17 MR. SAYER: Right.

18 So to that issue then, as I understand, you

19 know, EPA, as they define the temporary standard, and

20 they say it's -- and this is in the Department's initial

21 basis for change. In pulling language from the EPA

22 publication, they say that the temporary standard may be

23 appropriate where groups of permittees are experiencing

24 the same challenges in meeting their water-quality-based

25 effluent for the same pollutant regardless of whether or

1 not the permittees are located in the same water body.

2   And so as I understand the purpose of this

3 tool, it is -- you know, when there is this more or less

4 aggregate of voices saying, "We're all having a hard

5 time with the same problem," and I'm wondering is that

6 how it's going to be applied, where we're going to have,

7 you know, various voices saying, "Yeah, we all have this

8 same problem with this standard for this pollutant," or

9 are we going to have just one voice saying, "Yeah, it's

10 just me who has a problem."

11   MS. PINTADO: It could be either.

12   MR. SAYER: So in the context of just the one

13 voice, is this an appropriate tool for just one voice?

14 If the purpose of the tool in EPA's mind is that we have

15 this aggregate body of evidence that helps demonstrate

16 the need for a temporary standard, and if we just have

17 one voice saying "It's just us," is it really

18 infeasible, or is it just -- that's just that one voice?

19   MS. PINTADO: Well, then --

20   MR. SAYER: I guess my question -- sorry to

21 interrupt you.

22   MS. PINTADO: Yes.

23   MR. SAYER: How do we know -- if we don't have

24 multiple voices saying it's a problem, how do we know

25 it's really a problem?

1   MS. PINTADO: We have an indication of voices,

2   or one voice, it may be a problem, or for a particular

3   entity or petitioner based on the pollutant, and it

4   would be case by case. But it is a flexible enough tool

5   that multiple dischargers struggling with the same

6   pollutant may find this helpful or beneficial.

7   MR. SAYER: Okay. So -- and you mentioned

8   this earlier, but, you know, as applied to a situation

9   where someone has asked for a temporary standard, you're

10   going to go out and query the other dischargers,

11   presumably you know it's from a same or similar water

12   body dealing with the same pollutant and standard.

13   If the other voices come back and say "We're

14   not having a problem," I presume that would be easy for

15   you to say, "Sorry, there is no need for a temporary

16   standard."

17   MS. LEMON: Yeah, it would depend on their

18   petition, if they are basing their argument on economic

19   -- a widespread economic hardship, then that would be

20   different. I mean, we have different communities here

21   that have different economic bases. So it could be

22   different.

23   MR. KOUGIOULIS: So it may be achievable, but

24   it just isn't achievable at that moment for that

25   particular discharger. So that's why I think it's

1   solution driven. It's helping us get to where we want

2   to be with water quality, but also allows the permittee

3   options, flexibility to have an individualized work plan

4   to get there themselves, if they've qualified for sort

5   of conditions that -- in which a temporary standard

6   would be appropriate.

7   MR. SAYER: And then the 40 CFR 131(g)

8   factors, the feasibility factors, those are all ors;

9   right? Those are all -- it's not an aggregate, you have

10   to demonstration infeasible under each one of these

11   factors, it's you pick a factor --

12   MS. PINTADO: Right.

13   MS. LEMON: That's correct.

14   MR. SAYER: Thank you, Mr. Chairman.

15   MR. DOMINGUEZ: Commissioner Pattison and then

16   back to Commissioner DeRose-Bamman.

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

18   My questions have to do with playa lakes. I

19   suppose you all are familiar with those.

20   What is the definition of playa lake as it

21   relates to the -- or this subject matter today?

22   MS. LEMON: We have a definition in our

23   standards.

24   MR. KOUGIOULIS: I'm thinking if we actually

25   have a definition.

1   MS. PINTADO: We do.

2   MS. LEMON: We do.

3   MS. PINTADO: It would be as described in the

4   standards. We're looking.

5   MR. KOUGIOULIS: So playa means a shallow

6   closed basin lake typically found in the high plains and

7   deserts.

8   MR. PATTISON: Okay.

9   MR. KOUGIOULIS: So that's how the standards

10   define it.

11   MR. PATTISON: So it would be included in the

12   definition of closed basin, as is on page two, number

13   four, you have "A closed basin" -- and this is new

14   language -- "is a basin where topography prevents the

15   surface outflow of water and water escapes by

16   evaporation or percolation."

17   Okay. So how -- would that then be under the

18   definition of intermittent waters?

19   MS. LEMON: Where are you?

20   MR. PATTISON: On page two, line 32, number

21   two, "Intermittent."

22   MS. LEMON: Page two of --

23   MR. KOUGIOULIS: Of the standards?

24   MS. BECKER: Definition of closed basin.

25   MS. LEMON: Thank you.

1   MR. KOUGIOULIS: Okay. I'm sorry, I'm reading

2   the closed basin definition here, and your question is

3   whether or not a playa lake falls under a closed basin?

4   MR. PATTISON: Yes.

5   MR. KOUGIOULIS: And then when I look at the

6   actual definition, and I don't believe it is up for

7   proposed change, "'Playa' means a shallow closed basin

8   lake typically found in high plains and deserts."

9   So I think, you know, in the definition itself

10   of playa, we use the word "closed basin lake."

11   MR. PATTISON: Okay. So that would not be

12   included under the definition or the application to

13   intermittent waters? Playa lakes would not be included?

14   MR. KOUGIOULIS: That's a case-by-case

15   specific sort of analysis. But intermittent, as we

16   define it, is one that doesn't hold -- or mostly we

17   think of it as a channel of flowing water.

18   Playa is like a different type of intermittent

19   water, meaning it doesn't have water all year, or often

20   does not; where we would think of that differently than

21   say some of our streams that are related to snowmelt

22   that we may think of as intermittent.

23   MR. PATTISON: All right. How -- under the

24   definition of a discharger, is the -- is -- irrigation

25   runoff, if it occurs, is the farmer a discharger?

1   MS. LEMON: Through the NPDES program? No.

2   MR. KOUGIOULIS: They are not considered a

3   point source.

4   MR. PATTISON: And how about rainfall runoff?

5   That's not?

6   MR. KOUGIOULIS: That is part of a non-point

7   source, unless it is collected and channeled --

8   MS. LEMON: In an urbanized area.

9   MR. KOUGIOULIS: -- in an urbanized area to a

10 specific water.

11   MR. PATTISON: Okay. And how would a -- a

12 temporary standard, would it affect a playa lake?

13   MS. LEMON: Only if the petitioner is

14 requesting a temporary standard for that water body.

15   MR. PATTISON: And it would have to be a

16 specific water body, or in general?

17   MS. LEMON: It --

18   MR. KOUGIOULIS: It would need to be a

19 discharge to a water body that might be identified as

20 playa lake.

21   Is that potentially the only scenario I can

22 think of or --

23   MS. LEMON: It doesn't have to be a

24 discharger. It would just be a petition for a specific

25 water body.

1   The temporary standard applies to the water

2   body. So you would have to define the water body that

3   you want a temporary standard for.

4   MR. PATTISON: Okay. So -- well, to rephrase

5   that as to my understanding then, I -- a playa lake

6   would have to be specifically designated as in a

7   temporary standard --

8   MS. LEMON: Yes.

9   MR. PATTISON: -- for that standard to apply?

10   MS. LEMON: Yes.

11   MR. KOUGIOULIS: It's petitioner driven, and

12   so, yes, someone would have to go forward and do that

13   for a particular water body.

14   MR. PATTISON: Okay. The references here as

15   to aquatic life and any standards that apply to aquatic

16   life would then apply to playa lakes as a water body?

17   MR. KOUGIOULIS: The criteria that I think is

18   associated with any -- it's site specific. So you

19   really have to give a particular water body or an

20   example of petitioners. It could. Correct?

21   MS. PINTADO: Yes.

22   MR. KOUGIOULIS: Absolutely. Yes.

23   MR. PATTISON: As an intermittent water, if a

24   playa lake is dry for three or four years, as has been

25   the case, and in recent history, the existence of

1 aquatic life -- would there be aquatic life in it, or is

2 that a legal question -- logical question for this

3 proceeding?

4   MR. KOUGIOULIS: Well, I guess -- and I hate

5 to say it again, but it would depend on that particular

6 playa lake -- the size, location, what it demonstrated

7 to have prior to going dry, what is the capability of

8 having marginal life.

9   I don't really know, unless you were to

10 actually investigate it thoroughly.

11   MR. PATTISON: Okay. Well, there are frogs

12 and salamanders that come out of hibernation after three

13 or four years when a playa lake receives sufficient

14 water.

15   And my concern is, in a general application of

16 these standards, would that apply to that playa lake as

17 far as aquatic life is concerned?

18   MS. LEMON: Are you asking if the intermittent

19 uses and criteria apply to playa lakes? Is that the

20 question?

21   MR. PATTISON: Well, that would be one part of

22 the question. Yes.

23   MS. LEMON: Yes, it would depend on the playa

24 lake itself. If it is an intermittent or perennial or

25 even ephemeral, we do -- you know, our water quality

1 standards have water quality segments that explain which

2 water bodies apply to that segment; and for those that

3 are not in classified segments, we have the ephemeral,

4 intermittent and perennial, Sections, 97, 98, 99, to

5 protect those types of waters.

6   So it would depend on if the playa lake is

7 specified in segments 101 through 899. That would

8 determine if, you know, any of those designated uses and

9 criteria apply, or if it would fall under 97, 98 and 99,

10 and whether those uses and criteria apply.

11   I mean, without knowing a specific playa lake,

12 we can't really say which one would apply, because we

13 don't know the specifics about that lake. But all of

14 our standards do have aquatic life designated uses,

15 variations of it.

16   MR. PATTISON: Well, that was my point in

17 asking for the definition of playa lake.

18   You're saying that it can be included in these

19 intermittent, ephemeral waters?

20   MS. LEMON: Intermittent, certainly.

21 Ephemeral would need a use attainability analysis to

22 determine if it's ephemeral or not. But, yes, it could

23 be.

24   MR. PATTISON: Well, that gets to my concern

25 as to the application of these standards and the

1   temporary standards and the new ones where the changes

2   have been made to playa lakes in general specifically.

3   And I guess -- and let me proceed to the next

4   question.

5   What is the connection between the EPA's

6   waters of the US regulations that are pending or in the

7   courts or whatever to these standards?

8   MR. KOUGIOULIS: Well, I don't know that I can

9   speak to that. It's a federal issue, and it's currently

10   I believe in the courts.

11   But my understanding is that until that

12   decision is made, we are operating under the existing

13   waters of the US, as it has been in the previous.

14   MR. PATTISON: So you are operating under

15   the --

16   MR. KOUGIOULIS: Yeah, we have no other

17   direction outside of that but to operate with what we've

18   been operating with during all previous years subsequent

19   to any changes that occur to it.

20   MR. PATTISON: Well, they -- they include

21   playa lakes and prairie potholes in their definitions of

22   waters of the US. So, eventually, we can see you folks

23   administering that, can we not?

24   I don't know if you can propose the future or

25   not, but that is a concern of the landowners in New

1   Mexico that have some of the thousands of playa lakes in

2   our state on their land.

3   How does livestock watering -- yesterday, in

4   some of the presentations -- is it part of those nine

5   segments, or whatever, or where does livestock watering

6   fit in?

7   MS. LEMON: Livestock watering is a designated

8   use that is applied to the water quality segments. It's

9   not part of those nine segments that I was talking -- I

10   mean, it is, but it's not changing. It's not being

11   proposed for any changes.

12   But those nine segments -- the proposed

13   changes in those nine segments that I was talking about

14   yesterday are to the contact recreation use, going from

15   secondary contact to primary contact, and that's the

16   change that's proposed for those nine segments.

17   MR. PATTISON: And that would probably not

18   include livestock watering?

19   MS. LEMON: There is no change to the

20   livestock watering.

21   MR. PATTISON: I understand that.

22   But the -- you have a change that can affect

23   another part of your regulations, and so the concern is

24   that by -- well, the unintended consequences of the

25   changes that are proposed could affect playa lakes and a

1   person's ability to water livestock. That's -- and

2   that's just a statement.

3   I believe that concludes my questions.

4   MR. DOMINGUEZ: Okay.

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

6   MR. DOMINGUEZ: Back to Commissioner

7   DeRose-Bamman and then to Commissioner Dawson, followed

8   by Waters.

9   MS. DeROSE-BAMMAN: How many -- do you want to

10   go first? I mean, I have several.

11   MR. DAWSON: That's fine.

12   Thank you, Mr. Chairman.

13   My question was about the variances versus

14   temporary standards.

15   Is it common for permittees to request

16   variances now? I mean, is that a pretty common

17   principle?

18   MS. LEMON: We do not have a mechanism for

19   permittees to request variances, at least for surface

20   water discharges.

21   MR. DAWSON: Okay. So the temporary standards

22   that you're talking about, you looked at Idaho, and I

23   guess some of the ideas for this -- these changes were

24   taken from maybe Idaho or other states, but you

25   referenced Idaho.

1   Do you know how long they've had that in

2   process in Idaho?

3   MS. PINTADO: That's a good question.

4   At least since 2000, I think. It's been quite

5   some time.

6   MR. DAWSON: And that had to be vetted -- I

7   mean, if somebody is asking for a temporary standard,

8   it's vetted through the EPA.

9   Do you know how that process has worked? Has

10   it worked well for them? They went through asking the

11   EPA to review the temporary standards of a permit they

12   were approving?

13   MS. PINTADO: For Idaho, yes.

14   MR. DAWSON: It has? It's worked well?

15   MS. PINTADO: Yes.

16   MR. DAWSON: Okay. I think that's all the

17   questions I have.

18   Thank you very much.

19   MS. PINTADO: Thank you.

20   MS. DeROSE-BAMMAN: Thank you.

21   I have a couple more questions on the

22   temporary standards. Sorry.

23   I know it's not defined, but what's temporary?

24   MS. PINTADO: It's as justified by the

25   petitioner, I would say.

1   MS. DeROSE-BAMMAN: Okay. Because the

2   factors, the one -- you had mentioned yesterday -- you

3   know, I was referencing the six factors in 131.10(g).

4   And so the -- the distinction between whether

5   you can qualify for a UAA or this temporary standard is

6   that at some point you can meet the standards?

7   MS. PINTADO: Right.

8   MS. DeROSE-BAMMAN: So if you can meet the

9   minimum criteria saying -- you know, the economic factor

10 and saying, "Yes, I can't meet this now," I just don't

11 know what would distinguish -- you know, 20 years from

12 now -- I mean, who knows what you can meet 20 years from

13 now, you know, so why would we not be able to justify

14 the UAA versus having to go the temporary standard

15 route? So I don't know if there is --

16   MS. PINTADO: Well, using the nutrient

17 example, in that case, the nutrient standard is the

18 correct standard.

19   So a UAA path would not be appropriate or

20 allowable to change the standard, because we know it's

21 the end game.

22   The temporary standard can be tailored over

23 time to achieve the underlying standard. Both -- a UAA,

24 even if it were the option, would still be subject to

25 review every three years, as is the temporary standard.

1   So if conditions would change in the case of

2   the UAA to the better, we would expect -- and we had

3   information and defensible information to support that,

4   we would expect that designated use and underlying

5   condition to be better.

6   A temporary standard incorporates a timeline

7   that's justified by the petitioner, so it stands

8   throughout the three-year review, provided that progress

9   is being made.

10   MS. DeROSE-BAMMAN: I'm thinking about if

11   you're using Factor 6, widespread economic impact and

12   social impact. I don't know that it's so neat and tidy.

13   I mean, I can see some benefits in having the

14   temporary standard allow -- go that route because, as

15   you described, you're allowing more than three years,

16   more than just the triennial review process; whereas, if

17   you went the UAA route that you would have to -- or it

18   would be reviewed -- you're saying it would have to be

19   reviewed every triennial review, even though --

20   MS. PINTADO: Right.

21   If a UAA is downgrading a use, and those

22   designated uses or criteria can be met while we're

23   doing our review, and we have information that indicates

24   that to us, then, yes, we would probably have to revise

25   that.

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1   MS. DeROSE-BAMMAN: And there are -- I

2   understand that the way it's drafted, the temporary

3   standard is based on a work plan from a district -- from

4   a water body segment. But is there -- for the nutrients

5   example, the issue is the technology -- the limits are

6   lower than what technology can currently achieve, and if

7   you found technology that could achieve those low

8   limits, it's most likely going to be economically

9   infeasible to -- I mean, just huge costs right now.

10   MS. PINTADO: Uh-huh.

11   MS. DeROSE-BAMMAN: Yeah, down the road, it

12   may -- it may become cheaper, like a lot of things do.

13   With the nutrient as an example, it would be

14   nice to have kind of a statewide -- you know, something

15   that could be applied statewide, because if you're

16   saying anything below this level based on current

17   technology is achievable is infeasible for a wastewater

18   treatment plant, it would -- I mean, I could see, with

19   just some little tweaks, that we might be able to apply

20   this kind of best available technology approach. Would

21   the best available technology approach be workable

22   within kind of the current language or maybe with minor

23   tweaks?

24   Because I think that, as one of the other

25   Commissioners was bringing up, if all of these

1   entities -- especially for the nutrients, it's many,

2   once we start applying those in permits, are going to be

3   dealing with the same issue, maybe we could save a lot

4   of time and address kind of a temporary standard for

5   that pollutant and for the particular water body.

6   I realize this is specific, but -- but there

7   are -- why did you not address kind of the statewide --

8   statewide approach in this language?

9   MS. PINTADO: I would have to --

10   MS. DeROSE-BAMMAN: That's my question.

11   MS. PINTADO: Yes. This provision allows for

12   a statewide approach because it allows for pollutants or

13   water bodies. I don't think it precludes, in other

14   words, a statewide approach.

15   MS. DeROSE-BAMMAN: Okay.

16   MR. HUTCHINSON: On that point.

17   So if a group of municipalities or dischargers

18   on the stream segment were to get together and then they

19   are looking around and you're looking around and you

20   find that there is maybe some other stream segments that

21   have the same problem, they could all join together and

22   come in and make a single application for a temporary

23   permit?

24   MS. PINTADO: I believe the procedure, as

25   written, would allow for that.

1   MR. HUTCHINSON: Okay. Thank you.

2   MS. DeROSE-BAMMAN: It doesn't preclude it?

3   MS. PINTADO: Right.

4   MS. DeROSE-BAMMAN: Okay. Thank you.

5   I'm ready to move past the temporary standard.

6 Does anyone else have comments on the temporary

7 standard?

8   MR. WATERS: I do. Sorry.

9   MR. DOMINGUEZ: Commissioner Waters, followed

10 by Commissioner Longworth.

11   MR. LONGWORTH: Mr. Chairman, I'm on a

12 different topic.

13   MR. DOMINGUEZ: Okay.

14   MR. WATERS: Okay. Thank you, Mr. Chairman.

15   And I keep going back to Idaho, because, you

16 know, Idaho probably is a good example. I mean, let's

17 face it, they were the first to really go after the

18 nutrient standards until New Mexico dropped the floor

19 below that for the Rio Ruidoso, but they've been dealing

20 with these issues for some time.

21   How frequent are those temporary standards

22 challenged there? Are you aware of the frequency and to

23 what levels are they challenged?

24   I mean, is there a state board there, and I'll

25 give you -- maybe similar to our board, that hears

1   challenges to that, or is -- do they go before the

2   Environmental Appeals Board with the EPA? Do they do

3   both?

4   What's the process and what's the -- how easy

5   is it to appeal a temporary standard?

6   MS. PINTADO: I can't really say. I'm not

7   aware that Idaho has been challenged on their procedure.

8   I know in Montana, there is a board and the

9   Department of the Environmental Quality join hands, the

10   DEQ, I think it is, to develop a more statewide

11   approach.

12   But in terms of appeals, I can't really speak

13   to that for that particular state.

14   MR. WATERS: Okay. Thank you.

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

16   MR. DOMINGUEZ: Let's go to Commissioner

17   Longworth, and then we'll come back to DeRose-Bamman.

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

19   I want to commend you guys on the hard work

20   you guys have done. This is a tough business. I'm

21   going to ask your indulgence here. I'm a new member,

22   I'm going to ask some questions, they are probably

23   pretty dumb, just to kind of get up to speed. So I hope

24   you -- I beg the Commission and everybody's patience in

25   this.

1   You know, I'm having a -- I'm reading through

2   this and, you know, it's -- some of it is new and some

3   of it is not. But could you give me a clear distinction

4   between perennial, ephemeral and intermittent water

5   sources?

6   MR. KOUGIOULIS: I'd prefer to not rely on my

7   memory and go straight to the definitions.

8   MR. LONGWORTH: I've read the definitions.

9   MR. KOUGIOULIS: Okay.

10   MR. LONGWORTH: So, you know, the difference

11   -- so ephemeral is precipitation driven. Intermittent

12   is snowpack driven. Snowpack is precipitation. What's

13   the difference?

14   MR. KOUGIOULIS: One is the duration. So, for

15   instance, snow doesn't melt all in one day. So that --

16   that amount of water, if it is truly snowmelt driven and

17   the stream reflects that, meaning it has water on a

18   seasonal basis related to the snowpack, then that

19   duration of the year but not the entire year, as opposed

20   to a precip event that's flashy, it happens, and spikes

21   really high and then goes down; snowmelt, depending on

22   the type of spring, could be a very gradual, consistent

23   flow, until it trickles away.

24   So that would be a difference between a

25   precip-driven event, being rain, or one which relies on

1 a seasonal snowpack, which melts every spring and that

2 has water into some period of the spring.

3 Now, of course, if you don't get a good

4 snowpack, you may not always have that, but the stream,

5 on average, has been that type of stream.

6 MS. LEMON: I would also add that ephemeral,

7 the water table is always below the streambed. So you

8 never get that water table coming up to feed the stream.

9 So when it rains, the water sinks down into

10 the ground into the water table, so you don't have that

11 connection with the groundwater.

12 MR. LONGWORTH: Okay. I think I understand

13 what you're saying.

14 Where do you guys get those definitions?

15 MR. KOUGIOULIS: Well, the definitions are

16 generally derived -- they are consistent with many other

17 agencies, United States Geological Survey, but they are

18 derived really from literature, scientific literature.

19 So the point that Shelly is making about the

20 groundwater level is a very important one, because when

21 you think of a perennial water, that is basically a

22 surficial expression of the groundwater. There is water

23 coming in from the ground to it, and you're seeing that

24 move along.

25 The intermittent may have that at times of the

1   year as that snowpack goes into the shallow aquifer and

2   it has contact with the stream, it's not just running

3   off, you know, across the land, it's actually coming

4   through the ground, but then that doesn't last all year

5   and that water table slowly drops throughout the summer.

6   Whereas, ephemeral, that water table is never

7   near the channel, where you see the channel, it is far

8   below.

9   So those would be probably a better way of

10   looking at it from a water-table perspective.

11   MR. LONGWORTH: So, okay, then understanding

12   that, have ephemeral segments ever been -- are they

13   currently in the rules? Are there any segments

14   identified in the current rules?

15   MS. LEMON: We are proposing segments.

16   MR. KOUGIOULIS: Yes.

17   MR. LONGWORTH: So in 2009, there was no

18   ephemeral streams?

19   MS. LEMON: We had a default category for

20   ephemeral streams, but in order to prove that ephemeral

21   streams exist and have non-fishable/swimmable uses,

22   which are the non-Clean Water Act Section 101(a)(2)

23   uses, we have to conduct use attainability analyses.

24   So in 2009, we adopted the ephemeral Section

25   97, with the designated uses and criteria; and since

1   that time, we have been conducting UAAs to evaluate

2   whether the streams in question are ephemeral or not,

3   and now we're bringing forward those streams where we've

4   conducted UAAs to determine that they were ephemeral.

5   MR. LONGWORTH: And so all of those have had

6   the HP --

7   MR. KOUGIOULIS: HP, correct.

8   MR. LONGWORTH: -- and all of that?

9   MS. LEMON: Uh-huh.

10   MR. LONGWORTH: And is that included in any of

11 this? Is that included in --

12   MS. LEMON: That's included in our petition --

13   MR. LONGWORTH: It is?

14   MS. LEMON: -- and in our proposals, yes.

15   MR. LONGWORTH: Where?

16   MR. KOUGIOULIS: Well, that is the substance

17 of basically my entire testimony, is the results of the

18 hydro protocol applied to these specific stream segments

19 where, in using that hydro protocol, it's an indicator-

20 based methodology, we go out in the field, in addition

21 to doing a lot of work in the office, and basically

22 collect the information, make a scientific

23 demonstration, and then we say, "Okay, these particular

24 stream segments, we have found, through the use of the

25 approved hydro protocol and submitted through a UAA with

1 technical approval from EPA Region 6, that these are

2 ephemeral waters and that the existing attainable uses

3 that we document are those consistent with the

4 designated uses of ephemeral waters in our definition."

5 So we put all that together and then now we

6 come before this Commission and present that to you. So

7 that is the process by which you would say officially an

8 ephemeral water gets on the books.

9 MR. LONGWORTH: Okay. Fair enough. I

10 understand that.

11 So in your testimony, the testimony that I

12 have that was part of this, there was testimony you

13 gave, you're close, but I didn't see any -- you know, I

14 didn't see that --

15 MS. PINTADO: Oh, the list.

16 MR. LONGWORTH: -- in there, an actual -- not

17 just a list, but the actual -- the analyses, did you

18 provide those?

19 MR. KOUGIOULIS: Yeah. Those are exhibits to

20 my testimony.

21 MR. LONGWORTH: Okay.

22 MR. KOUGIOULIS: And I believe my actual

23 exhibit -- Bureau Exhibit 42 is the UAA, which I -- it

24 would be the one that I presented and the one that

25 basically I was the author -- the Bureau was the author,

1 but the one which I completed. That has all of the

2 field sheets in it --

3   MR. LONGWORTH: Oh, it does. Okay.

4   MR. KOUGIOULIS: -- it has all of our maps,

5 and everything that went into that, which would include

6 looking at Office of State Engineer groundwater levels,

7 pumpage, all the information we could get from a

8 permittee related to pre- and post-hydrology, and then,

9 of course, all the indicator-based field evidence that

10 we gathered during our evaluations on the ground.

11   MR. LONGWORTH: So one of the questions that

12 came up yesterday was how did you determine drought, and

13 you said you used the SPI and use of those hydrologic

14 drought indicators.

15   MR. KOUGIOULIS: Correct.

16   MR. LONGWORTH: That's what I understood.

17   MR. KOUGIOULIS: Yes.

18   MR. LONGWORTH: And so let me make sure we're

19 clear here.

20   Is it a hydrologic drought indicator or a

21 meteorologic drought indicator?

22   MR. KOUGIOULIS: Hydrologic.

23   MR. LONGWORTH: Are you sure?

24   MR. KOUGIOULIS: Are we sure?

25   Well, we --

1   MR. LONGWORTH: Let me rephrase that.

2   By what definition? Because when we look it

3   up, it's meteorologic.

4   MR. KOUGIOULIS: When you look it up according

5   to --

6   MR. LONGWORTH: Any -- in any -- and I can go

7   through it.

8   MR. KOUGIOULIS: A 12-month SPI, you mean?

9   MR. LONGWORTH: Just SPI in general.

10   MR. KOUGIOULIS: Oh, I see what you're saying.

11   MR. LONGWORTH: I don't want to take the time

12   looking up what it is, and so if we can just refer to

13   this being a much different purpose than what I

14   understand maybe you guys are using.

15   MR. KOUGIOULIS: Yeah. I think maybe a

16   similar example would be, you know, today's temperature

17   is the weather today, but then you have a season, which

18   is three months, and that would be that, and then you

19   may have climate, which is a longer term average of many

20   years.

21   We're looking at that longer one. So the SPI

22   is dependent on the time frame you choose. So if you're

23   looking at what has it been like the last three months,

24   up until this point I know it's rained a little, then it

25   hasn't, it looks like it's average. But say if it

1   hasn't rained much, the SPI may say that you're a little

2   below average for the three-month period.

3   But if you went back the whole 12 months, it

4   may be that there was a lot of rain prior to that three

5   months and then you didn't have much rain and so your

6   average for the 12 months.

7   We're looking at that longer-term one, because

8   that's the one that really impacts the water table and

9   the water resources that would affect the perenniality

10   of a water body.

11   MR. LONGWORTH: Let me make sure I understand

12   what you've said.

13   You're saying -- I mean, we could put the

14   meteorologic drought versus hydrologic drought issue

15   aside for a second.

16   MR. KOUGIOULIS: Okay.

17   MR. LONGWORTH: You're saying you look at the

18   12 months, so if you have one big major issue that blows

19   your average out of the water, but your 12-month average

20   will look normal?

21   MR. KOUGIOULIS: Not necessarily, because the

22   beauty of the SPI is that it uses a serial data set;

23   that is, as long as possible.

24   And so we live in the Southwest where that

25   happens a lot; rain happens a lot all at once and then

1 doesn't. That is actually part of that base. So that's

2 always been the case --

3   MR. LONGWORTH: Well -- well -- excuse me.

4   MR. KOUGIOULIS: -- and so that may be an

5 average way in which we get precipitation.

6   MR. LONGWORTH: But if I understood -- if you

7 -- ephemeral is precipitation in the sense of monsoonal

8 waves or rain, rather than snow, which is intermittent.

9   And so SPI, how does it differentiate between

10 precipitation from snow versus precipitation from rain?

11   MR. KOUGIOULIS: I don't think it does.

12   MR. LONGWORTH: So when we're looking at

13 higher-altitude ephemeral streams, how are you

14 differentiating whether or not they are intermittent or

15 ephemeral based on the SPI?

16   MR. KOUGIOULIS: The SPI doesn't determine

17 that. The SPI is guidance for us. It's sort of like a

18 heads-up, "Hey, did you look at the SPI? What is the --

19 what has the climate been like for the last year?"

20   So we can use that information to determine

21 whether or not that climate over the last year has -- is

22 going to influence some of the indicator-based

23 evaluations that we look at.

24   We determine something being ephemeral or

25 intermittent by multiple indicators, redundant

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1   indicators, many lines of evidence that occur in the

2   field and in the office.

3   The SPI is sort of like checking the weather

4   to make sure whether you need a jacket. You're looking

5   at it to see whether it's appropriate to perform the

6   work in the field. It isn't the measure or the index

7   that tells you whether something is intermediate or

8   ephemeral -- intermittent or ephemeral. Sorry.

9   MR. LONGWORTH: Fair enough.

10   Let me back up.

11   Waters of the United States has come up

12   multiple times. We don't have ephemeral currently in

13   our statute or in our rules. Now we're going to. Is

14   that correct?

15   MS. LEMON: We currently have ephemeral in our

16   standards.

17   MR. KOUGIOULIS: We do have ephemeral waters.

18   MR. LONGWORTH: But there is none defined --

19   MR. KOUGIOULIS: We have the record.

20   MR. LONGWORTH: -- directly.

21   MS. LEMON: Yeah, none that are specifically

22   named.

23   MR. LONGWORTH: Right. Okay. So now we're

24   going to specifically name those as ephemeral sources,

25   right?

1   MS. LEMON: That's correct. That's what we're

2 proposing.

3   MR. LONGWORTH: So that's my concern here, is

4 that we have a section in our rules that have -- that's

5 blank, now we're going to add multiple upstream things

6 that are going to -- we're going to say that these are

7 now ephemeral -- definitive ephemeral streams.

8   MR. KOUGIOULIS: Well, the definitive part,

9 like any UAA, it is subject to review every three years.

10   MR. LONGWORTH: Okay. So let me jump in. For

11 the next three years.

12   MR. KOUGIOULIS: Okay.

13   So, yes, as proposed, we have, through the

14 approved process and EPA concurrence, demonstrated that

15 these particular stream segments are ephemeral in nature

16 and therefore the designated uses and criteria are

17 associated with that natural attainability in the

18 ephemeral stream.

19   MR. LONGWORTH: Okay. And so going back to

20 the SPI, the drought issue, because the last -- since

21 2009, we've been in a pretty significant drought.

22   And so, for example, above Grindstone, what's

23 the elevation of that?

24   MR. KOUGIOULIS: Where?

25   MR. LONGWORTH: Grindstone, one of the

1 ephemeral -- on the Pecos is essentially a stream system

2 above Grindstone.

3   MR. KOUGIOULIS: I would have to look at the

4 -- you're more familiar with the actual area. I'd have

5 to go back and research that.

6   MR. LONGWORTH: Okay. I mean, I just -- I

7 don't know, either, I'm just curious and know that that

8 area tends to get snow and there is snow indications

9 there, so we're putting it in ephemeral and saying it's

10 basically a monsoon liquid precipitation driven system,

11 not intermittent, so it falls somewhere else.

12   I'm trying to understand how you come up with

13 those different kind of determinations. And then given

14 that it's been a drought and that -- let's just say it

15 out loud, Ruidoso used to get snow and it's not

16 happening as much as it did previous to 2009 --

17   MR. KOUGIOULIS: Right.

18   MR. LONGWORTH: -- is there a potential that

19 this thing is going to drop into ephemeral when it's

20 really intermittent?

21   MR. KOUGIOULIS: Well, that's exactly what the

22 SPI does, because it accounts for all those years where

23 you're referring to it used to get snow, and if there

24 isn't snow now and it didn't fall, then it's telling us

25 that it is in a deficit.

1   And when we recognize that the particular

2   region over a particular time frame may have a deficit

3   in the average precipitation, that that gives us, I

4   guess, something we have to consider, and one of the

5   considerations is if that is too gray, if we really see

6   that it's in a drought, we are not performing the HP to

7   make a determination on whether that's ephemeral.

8   We feel that the climatic conditions that

9   you're referring to may be biasing what we would

10 determine in the field. And so what we're looking for

11 is stable base flow and something that is approaching a

12 normal.

13   So in that condition, no, I think we would

14 have reservation.

15   MR. LONGWORTH: If it's got a stable base

16 flow, how could it be intermittent or ephemeral?

17   MR. KOUGIOULIS: What's that?

18   MR. LONGWORTH: If it's got a stable base

19 flow, how could it be intermittent or effluent, because

20 it would be perennial?

21   MR. KOUGIOULIS: No, no, that's the point.

22 We're looking for a stable base flow. If there isn't

23 base flow, there isn't base flow.

24   If it's perennial, then that's a stable base

25 flow, meaning we don't want to go out there when it's

1   influenced by a big event. It rained 16 hours earlier.

2   You see water in the channel. Is that a stable base

3   flow? Probably not. Okay. So you don't want to go out

4   when it just rained.

5   At the same time, if it's been dry for a long

6   time and there hasn't been any rain, well, there could

7   be, but this is not indicative of what stable would be.

8   You're too far out of the norm.

9   So that is something that we would have

10   reservations about making a call.

11   So the SPI is really guidance for us. It's

12   sort of another check and balance. We use it as a very

13   conservative way to not ignore climatic influences, but

14   acknowledge them. But really we're focused on other

15   characteristics, as well, that together build I guess a

16   weight-of-evidence approach, in addition to, say,

17   perhaps an SPI that we are comfortable with, we find all

18   these other indicators that are indicative of a

19   particular stream type.

20   MR. LONGWORTH: Okay.

21   MR. HUTCHINSON: On that -- on the point that

22   he's going at, what has driven us to have to do a UAA to

23   determine an ephemeral stream?

24   And, you know, in looking at the history of

25   what EPA claimed to be waters of the US seemed to be the

1 driving factor in them deciding that our dry arroyos are

2 under their jurisdiction.

3   Is that what drove us to have to do UAAs for

4 -- to list ephemeral streams?

5   MR. KOUGIOULIS: Go ahead.

6   MS. LEMON: We -- I mean, EPA has basically

7 said that a stream must meet fishable/swimmable uses.

8 The rebuttable presumption. Okay?

9   And in order for us to say, "Look, our

10 ephemeral streams do not meet fishable/swimmable, you

11 know, they are ephemeral," we have to go through a use

12 attainability analysis to demonstrate that those uses

13 are not attainable, because we are essentially

14 downgrading from Clean Water Act uses.

15   So until it's actually defined, it's presumed

16 to be fishable/swimmable.

17   MR. HUTCHINSON: Okay. So my snorkeling for

18 sandtrout wouldn't put us into a --

19   MS. LEMON: And that's why we have this

20 process, to help us evaluate and scientifically defend

21 if a stream is ephemeral.

22   MR. HUTCHINSON: Okay.

23   MR. LONGWORTH: So that's a good point.

24   So what you're saying is using the

25 intermittent and ephemeral to kick it out of the

1 perennial, and that way it doesn't fall into waters of

2 the state.

3   MR. KOUGIOULIS: I don't think that it's a

4 jurisdictional thing as much as the Clean Water Act

5 requires that. Unless we've gone out and done a UAA, it

6 is presumed that they are attaining these 101(a)(2) uses

7 which are the fishable/swimmable ones.

8   If we have really good evidence, we've been

9 there, never seen water, we have a permittee whose

10 permit is conditioned by going to an intermittent water,

11 which we can find no record that, outside of a

12 precipitation event, there has ever been water in it,

13 this is a scenario where a petitioner may come, as they

14 have, and said, "Hey, you know, we would like to do the

15 hydro protocol to see if, indeed, this is an

16 intermittent or ephemeral water," and they do that, and

17 they demonstrate scientifically one way or the other.

18   And so that is another scenario in which --

19 you know, the useful of this. It's generally -- you

20 know, it's -- we're not going to go out and start doing

21 this all over the place. There needs to be a reason.

22   MR. LONGWORTH: Well, on that point, and then

23 I'll finish, Mr. Chairman, just real quick here.

24   I mean, you see lots of arroyos, right? So

25 you're not going to do all the arroyos. So how are

1 arroyos excluded, in general? Otherwise, aren't they

2 then considered waters of the United States, perennial?

3   MR. KOUGIOULIS: They are considered waters of

4 the state.

5   MR. LONGWORTH: Unless you use the analysis,

6 don't they fall under fishable/swimmable?

7   MR. KOUGIOULIS: Right. That is how our

8 standards read. Unless specifically identified by

9 segment name, they are presumed to meet those

10 fishable/swimmable uses.

11   Now, you may be driving down the interstate

12 and see many arroyos and say, you know, "Is that really

13 it?" Well, until demonstrated otherwise, that is the

14 assumption.

15   MR. LONGWORTH: Okay.

16   MR. KOUGIOULIS: And that's why the HP is the

17 tool to demonstrate otherwise.

18   MR. LONGWORTH: Okay. I can stop.

19   MR. DOMINGUEZ: Mr. Hearing Officer, looking

20 at the clock and considering there is some additional

21 questions from the Commission, I might suggest this

22 might be a good time for a quick break for the parties.

23   MR. CHAVEZ: Absolutely.

24   Let's take a 10-minute break. It's 10:42.

25 Let's get back at around 10:52, 10:55.

1   Thank you.

2   (Recess held from 10:42 to 11:00 AM.)

3   MR. DOMINGUEZ: If we could come back together

4   and get started again, please.

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

6   Mr. Commissioner, Mr. Chairman, Members of the

7   Commission, you may continue with your questioning.

8   MR. DOMINGUEZ: Okay. Just a quick

9   housekeeping reminder for the Commissioners.

10   As we -- as each of you develop your

11   questions, we need to be cognizant that our questions

12   need to be limited to the testimony provided by the

13   parties and within as close a context as we can keep

14   that.

15   So I just wanted to provide that, since we've

16   got some -- a number of relatively new Commissioners on

17   staff.

18   So with that, we will -- we will proceed with

19   Commissioner Longworth, followed by Commissioner

20   DeRose-Bamman.

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

22   Hopefully, these are relevant questions. I've

23   just got three follow-up -- three different questions,

24   and we can get through them pretty quickly. I'll start

25   with the easiest one.

1   It's my understanding that releases from

2   reservoirs for the purposes of agriculture do not

3   require a discharge permit.

4   Is that correct?

5   MS. LEMON: Releases from a reservoir?

6   MR. LONGWORTH: Yes.

7   MS. LEMON: They are not -- no, they do not

8   require.

9   MR. LONGWORTH: No, that's not correct or,

10   yes, they do --

11   MS. LEMON: No, they do not require.

12   MR. LONGWORTH: They do not require. Thank

13   you.

14   And these rules don't change that?

15   MS. LEMON: That's correct.

16   MR. LONGWORTH: In the instance of a point

17   diversion from a groundwater well to a surface water

18   body, was -- would that require a discharge permit

19   according to these rules and how these rules -- does

20   that -- okay, let me rephrase that.

21   Diversion from a groundwater well to a surface

22   water body, does that require a point diversion under

23   these permit rules?

24   MS. LEMON: Yes, it would -- any discharge --

25   point source discharge to a surface water requires a

1 NPDES permit.

2   MR. LONGWORTH: Are you sure?

3   MS. LEMON: A point source discharge?

4   MR. LONGWORTH: From a groundwater well. From

5 a connect, not a perennial river.

6   MS. LEMON: Can you give me more specifics?

7 Because I don't know what you're getting at.

8   MR. LONGWORTH: Absolutely. Absolutely.

9 Yeah.

10   We -- from the State Engineer's perspective,

11 we have situations where we have alternative

12 administration, water rights where we pump water from

13 groundwater wells. In the past there has been questions

14 as to whether or not that requires an NPDES permit, and

15 I'm asking you a question to see if that does.

16   And if you don't know say "I don't know."

17   MS. LEMON: Yeah. It -- I know that we have

18 been, as a Department, coming up with this question, but

19 our proposals do not implement that.

20   MR. LONGWORTH: Okay. That's what I was going

21 to get to.

22   Okay. Great. Thanks.

23   MS. DeROSE-BAMMAN: I'm sorry, what did you

24 say?

25   MS. LEMON: Our proposals -- you know, the

1 proposed amendments do not affect that.

2   MR. LONGWORTH: And then, finally, I guess the

3 question -- so changing proposals -- changing a little

4 bit in here, there has been a big permit in the Middle

5 Rio Grande area, an MS-4 permit.

6   Is that just trying to combine a number of

7 point sources, do I have that correct, or is that just a

8 non-point source, the MS-4 permit?

9   MS. LEMON: The MS-4 is a storm water permit

10 for the urbanized areas.

11   MR. LONGWORTH: That's right.

12   MS. LEMON: Right.

13   MR. LONGWORTH: It's a large area. So it is

14 not covered by this, or it is?

15   Because it's multiple entities -- what I'm

16 trying to get at is if it is covered under these new

17 proposed updates, I have a follow-up question. If it's

18 not, then I'm done.

19   MS. LEMON: The water bodies of the state are

20 covered by these. So the Middle Rio Grande through the

21 Albuquerque area, the standards that are defined here

22 are the standards that the river needs to achieve in

23 Albuquerque. The permit is not part of this --

24   MR. LONGWORTH: Right.

25   MS. LEMON: -- regulation.

1   MR. LONGWORTH: So that permit is a permit

2   that requires multiple entities to come together and

3   have to meet these criteria, is that -- as I understand

4   it, in these new proposed criteria.

5   MS. LEMON: The permit --

6   MR. LONGWORTH: They permit to multiple

7   entities.

8   MS. LEMON: There aren't any proposed changes

9   to those segments, so --

10   MR. LONGWORTH: So this doesn't impact them?

11   MS. LEMON: -- they have to meet the permit

12   limits that are in that MS-4 permit.

13   MR. LONGWORTH: Okay. I'm done.

14   Thank you, Mr. Chair.

15   MR. DOMINGUEZ: Okay. Commissioner

16   DeRose-Bamman.

17   MS. DeROSE-BAMMAN: Thank you, Mr. Chair.

18   I have a question regarding the piscicide or

19   piscicides -- I'm not quite sure --

20   MS. LEMON: Sure.

21   MS. DeROSE-BAMMAN: -- provision.

22   I think this one -- I know Mr. Patten isn't

23   here today, but I think this applies to how we would

24   know.

25   When an application is not covered under the

1 NPDES -- or it is covered under an NPDES permit and

2 right now one exists, the general permit exists -- and

3 he said yesterday that all of the applications that he

4 could perceive would fall under that permit right now,

5 but there are additional requirements that are being

6 proposed in this language.

7   MS. PINTADO: Okay.

8   MS. DeROSE-BAMMAN: So how do you -- how does

9 the Environment Department get notified when -- if it

10 doesn't have to come to the Commission, how does the

11 Commission get notified, if we're not having to hold a

12 hearing but it's covered under the NPDES permit?

13   And so is there some additional work that

14 needs to be done? So how does -- how does that get

15 started? Do they just --

16   MS. PINTADO: The Department would still have

17 an opportunity to review the application.

18   MS. DeROSE-BAMMAN: And how does that happen?

19   MS. PINTADO: It comes to us usually from the

20 Game & Fish, yes.

21   MS. DeROSE-BAMMAN: Does EPA give you an

22 opportunity to review before they approve the NOI under

23 the general notice of intent?

24   MS. PINTADO: The NOI -- as long as they apply

25 for it and they fit the eligibility requirements, they

1 are covered, and we can look on-line and see what the

2 activities are and whether they are covered or not.

3 There is a pretty good website for that.

4   MS. DeROSE-BAMMAN: But that's an action that

5 the Environment Department has to take --

6   MS. PINTADO: To look at it --

7   MS. DeROSE-BAMMAN: -- to look to see -- -

8   MS. PINTADO: -- but, again, they let us know

9 when the application is going to occur.

10   MS. DeROSE-BAMMAN: So the rule does not

11 provide any requirement that they notify you? It's

12 just --

13   MS. PINTADO: No.

14   MS. DeROSE-BAMMAN: And then regarding number

15 -- paragraph -- Section -- Subsection G in Section 16.

16   MS. PINTADO: I'm sorry, what subsection?

17   MS. DeROSE-BAMMAN: G.

18   Well, this is just continuing that point. So

19 you're saying that G requires, or will require, "Any

20 person whose application is covered by an NPDES permit

21 shall provide written notice to local entities and

22 implement post-treatment assessment monitoring within

23 the application area as described."

24   So you're saying that the -- the Environment

25 Department, and therefore the Commission, would know

1 that this is happening based on the app- -- the person

2 telling you?

3   MS. PINTADO: Right.

4   MS. DeROSE-BAMMAN: Even though they don't

5 have to get approval for the application, because it's

6 covered under the NPDES permit, but they have to take

7 these additional steps, and we're relying on them to

8 notify you?

9   MS. PINTADO: The application is covered under

10 the NPDES permit, but these particular local

11 post-monitoring and assessment activities were not,

12 unless it happens on a tribal -- on tribal land, and the

13 tribe has specifically conditioned that part of the

14 general permit for that. So we added this requirement.

15   MS. DeROSE-BAMMAN: Just within --

16   MS. PINTADO: Yes.

17   MS. DeROSE-BAMMAN: Is this requirement within

18 the NPDES permit itself, the site -- the state-specific

19 requirements?

20   MS. PINTADO: No.

21   MS. DeROSE-BAMMAN: Because some of the

22 general permits do have state-specific requirements.

23   MS. PINTADO: In New Mexico, I believe it's

24 just on tribal land, but some states have that added to

25 the general permit.

1   MS. DeROSE-BAMMAN: But in order for this --

2   for the person -- it's just based on these rules, if

3   this does get approved, that they would have to know to

4   do this -- to send these additional requirements?

5   MS. PINTADO: These additional requirements --

6   MS. DeROSE-BAMMAN: The written notice --

7   MS. PINTADO: Right.

8   MS. DeROSE-BAMMAN: -- to local entities and

9   the post-treatment assessment monitoring. They would

10   just know based on this requirement?

11   MS. PINTADO: Based on this rule, right.

12   MS. DeROSE-BAMMAN: It's not -- okay. I just

13   think if it's not within a permit -- I understand this

14   would be in the standards, but, you know -- and if they

15   don't ever come to the Commission any longer to -- for

16   approval and it's not specified in the NPDES permit,

17   which is the main thing, then if we're never notified

18   that they -- they are covered under the NPDES permit,

19   then how do we know that to expect these documents? So

20   I just wondered if there is a -- if there is -- where

21   that loop is connected.

22   MS. PINTADO: It's in the cover agenda of the

23   NOI for the general permit and they apply for that. You

24   would know who and when and when the activities -- I

25   think they have a schedule, a plan for the -- I forget

1 how many years it covers, but it should be in the NOI.

2   MS. DeROSE-BAMMAN: And are they required to

3 submit the NOI to the Environment Department also?

4   MS. PINTADO: No. No.

5   MS. DeROSE-BAMMAN: So I just didn't know

6 where the mechanism is to notify us. So -- okay. I

7 don't have any more questions on 16, Section 16.

8   Okay. Regarding the ephemeral waters and the

9 addition of waters that you've completed the use

10 attainability analysis for, so I just want to make sure,

11 have all of them -- have the UAAs received technical

12 approval from EPA?

13   MR. KOUGIOULIS: Yes.

14   MS. DeROSE-BAMMAN: All of them now?

15   MR. KOUGIOULIS: The ones that we came forward

16 with, yes. The two that I -- just for the hydro

17 protocol. If you're referring to all ephemeral -- all

18 UAAs, I'm only going to be addressing the ones that --

19 for the use of the hydro protocol.

20   MS. DeROSE-BAMMAN: Okay. But for the other

21 ones, the ones that are listed for Section 97 now.

22   MS. PINTADO: There are five drainages on

23 Chino Mines' property that have not received technical

24 approval yet from EPA.

25   MS. DeROSE-BAMMAN: Okay. And are -- could

1 you tell me when those were submitted to EPA? You

2 submitted something --

3   MS. PINTADO: June of 2013.

4   MS. DeROSE-BAMMAN: Okay. So it's pending.

5   MS. PINTADO: Yes, it is pending.

6   MS. DeROSE-BAMMAN: So it's likely that we

7 could receive technical approval from EPA before we

8 finalize the triennial review?

9   MS. PINTADO: I can't predict EPA very well,

10 but --

11   MS. DeROSE-BAMMAN: It's a possibility. Okay.

12   Does anyone else have any questions on 97?

13   Okay. On Section 98, your -- you've added

14 language "or classified in segments 20.6.4.100 through

15 899."

16   MS. PINTADO: Yes.

17   MS. DeROSE-BAMMAN: But the preceding phrase,

18 starting with "except those ephemeral waters included

19 under 20.6.4.97 NMAC," or classified in those other

20 segments, it seems that "except those ephemeral waters"

21 modifies "classified in 100," so I don't know if you

22 want to -- would you want to delete the word "ephemeral"

23 or rephrase that?

24   MS. LEMON: Where -- excuse me, for which one?

25   MS. DeROSE-BAMMAN: Section 98.

1   MS. LEMON: What is the question again?

2   MS. DeROSE-BAMMAN: The phrase "except those

3   ephemeral waters" -- so it kind of looks like ephemeral

4   waters is either those included under 20.6.4.97 or

5   ephemeral waters classified in 20.6.4.100 through 899.

6   We know ephemeral waters aren't classified in

7   those -- I mean, they may, but -- so I just -- it's a

8   phrasing thing, so think about how you might want to

9   modify that.

10   MS. PINTADO: Uh-huh. Sure.

11   MS. DeROSE-BAMMAN: And I have questions on

12   the primary -- the change from secondary contact to

13   primary contact for Section 103.

14   EPA did approve the revisions to that section.

15   I think these are the statement of reasons from the 2009

16   triennial review, they are EPA -- the record of

17   decision, I think is what it's called.

18   I have the document, but I can't go back to

19   the link from your website to show what it is and it's

20   not labeled well. But on page 45 of this document,

21   which I will give you the specific -- there is -- it's

22   referring to the changes for Section 103, and in Section

23   103 at that time the criteria -- the designated use was

24   listed as secondary contact and the criteria for that

25   were the E. coli, the 548 CFU per hundred mil or less

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 1   and 257, so that time frame --

 2              MS. PINTADO:  Right.

 3              MS. DeROSE-BAMMAN:  -- because I know things

 4   have changed.

 5              MS. PINTADO:  Right.

 6              MS. DeROSE-BAMMAN:  So it says -- the last

 7   action from EPA, it says "EPA approves the revisions to

 8   this section."

 9              So they did approve the use of secondary

10   contact with the use of secondary contact numbers for

11   Section 103.

12              So that was one of your sections that you're

13   proposing to change to primary contact and, therefore,

14   the lower criteria associated with the description of

15   primary contact in Section 900.

16              So was there a later document that showed that

17   EPA disapproved that section afterward?

18              MS. PINTADO:  In 2007, we think.

19              MS. DeROSE-BAMMAN:  I think this was --

20              MR. HUTCHINSON:  At the very top.

21              MS. DeROSE-BAMMAN:  I don't think it did.

22              It says "Record of decision for EPA review,"

23   and it doesn't have a date.

24              MS. PINTADO:  I don't remember now.

25              MS. LEMON:  We do -- I can't remember which
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1 exhibit it is.

2   MS. BECKER: Rebuttal Exhibit 4.

3   MS. LEMON: Rebuttal Exhibit 4.

4   In 2007, the EPA did issue a statement

5 saying -- you know, talking about the rebuttable

6 presumption -- that all waters are fishable/swimmable

7 unless proven otherwise, and that is the position that

8 we know EPA is presuming and why these segments -- we

9 evaluated those segments, we looked at whether there was

10 supporting documentation for that secondary contact use,

11 which is a lesser use for Clean Water Act Section

12 101(a)(2) uses, and we could find no evidence supporting

13 the secondary contact use there, and that's why we're

14 proposing the primary contact use.

15   MS. DeROSE-BAMMAN: Okay. So did they

16 specifically -- I'm sorry.

17   Did they -- it was just a general statement,

18 it wasn't specific to Section 103 saying that they

19 withdraw their approval of Section 103, or did they kind

20 of say we withdraw our approval of any --

21   MS. LEMON: It was a general statement.

22   MS. DeROSE-BAMMAN: I don't have any other --

23 oh, I have a question on Section 403, the San Juan River

24 basin.

25   "The Animas River from its confluence with the

1 San Juan River upstream to Estes Arroyo." This is on

2 page 15 of your second amended proposed changes.

3   The question is, the proposal -- the original

4 document I said I think had the temperature criteria of

5 27 degrees C or 80.6, and now the second amended change

6 has 29 degrees C and 84.2.

7   Would you explain this?

8   MR. DAIL: I can address that, Commissioner

9 DeRose-Bamman.

10   That was after a conference with some

11 interested parties about the modeling that was used to

12 determine what the achievable temperature might be for

13 that section and also conferring with the actual data

14 sets that we had for that.

15   So the change was made once some modeling runs

16 were made and a look at what was achievable from the

17 real temperature data set that we had, and it turned out

18 it was much more feasible to achieve that with a

19 specific temperature criterion.

20   Does that answer your question?

21   MS. DeROSE-BAMMAN: Yes. Thank you.

22   And that brings me to Section 900, Subsection

23 I, regarding the aluminum criteria.

24   Does anyone have any others?

25   MR. WATERS: I've got something back on

1 Section 101.

2 　　　　MR. DOMINGUEZ: Go ahead.

3 　　　　MR. WATERS: Let's come back.

4 　　　　MS. DeROSE-BAMMAN: So the aluminum criteria

5 are hardness-based, but also the applicable would be pH

6 -- well, it's not pH dependent, it's just if the water,

7 and it's been measured through your stream surveys to

8 show that the pH is less than 6.5, then the language

9 doesn't explain what would apply.

10 　　　　All right. What applies, and where is it

11 specified for a stream body that has a pH less than 6.5?

12 　　　　MR. DAIL: Commissioner DeRose-Bamman, the --

13 it is the case that EPA guidance regarding waters

14 supportable of aquatic life are those between 6.5 and 9;

15 however, we do make those measurements, and during

16 assessment, if it doesn't meet the criteria, then pH may

17 be taken into consideration.

18 　　　　It is the case that under -- under current --

19 under current assessment protocols, there is a very

20 limited number of waters that fall into that category

21 of below pH 6.5, which is inhospitable to aquatic life,

22 and basically we're talking about one water in

23 particular within the Jemez basin, and that's Sulphur

24 Creek, and for purposes of proper recording, "Sulphur"

25 is in the Queen's English in this one, it's

1 S-u-l-p-h-u-r.

2   Those are naturally acidic waters, and

3 regardless of what criteria you would like to apply to

4 those, whether that's the 1988 guidance for aluminum or

5 the -- or the current one that we have, the hardness

6 dependent, those waters would not meet their aluminum

7 criteria either way, but it's for natural causes, and

8 there is a UAA in place that recognizes the low pH.

9   MS. DeROSE-BAMMAN: Is it a UAA that --

10   MR. DAIL: There is a UAA that this Commission

11 passed in 2009 which says that the appropriate pH for

12 these waters is between 2 -- 2 and 9.

13   MS. DeROSE-BAMMAN: And you have segment-

14 specific -- you have segment-specific criteria for that?

15   MR. DAIL: For pH. Not for aluminum. But

16 we're taking that under consideration that a

17 segment-specific aluminum criteria may be appropriate

18 given the natural high aluminum that's in this basin.

19   MS. DeROSE-BAMMAN: So the UAA applies to more

20 than just aquatic life? I mean, it applies to the

21 metals as well as just --

22   MR. DAIL: It does not -- the UAA that's in

23 existence is mentioning aquatic life, it is a limited

24 aquatic life scenario, and also the low pH that occurs

25 in the segment.

1   Let me clarify that limited aquatic life in

2   this system -- we're sort of thinking about a

3   Yellowstone here, where it's only extreme organisms that

4   are probably adapted to this particular system. So

5   we're talking about what the scientists call

6   extremophiles, they are living in very harsh conditions,

7   there is aquatic life, but it's very limited, and that

8   is what the UAA determined.

9   MS. DeROSE-BAMMAN: So we do have one segment

10   that's already identified -- water body as well as

11   segment in our standards that applies to with a water

12   less than a 6.5 pH?

13   MR. DAIL: Correct.

14   MS. DeROSE-BAMMAN: But there may be others in

15   the state as well?

16   MR. DAIL: I've seen some older data, at a

17   time when we were not able to deploy long-term pH

18   measurements but maybe spot-checks, in a few instances

19   that would need to be followed up by further monitoring,

20   now that we have greater capability, that would be below

21   pH 6.5. But there -- we're expressly talking about a

22   very few instances.

23   In fact, I did an analysis of 5,000

24   measurements we've made over the last five or six years

25   and found that less than one percent of those

1 measurements were below 6.5.

2 MS. DeROSE-BAMMAN: So if there are waters

3 that would be below 6.5, which aluminum criterion would

4 apply?

5 MS. LEMON: Currently, as our standards stand,

6 there is only one water body, Sulphur Creek, that has a

7 designated criterion of 2 to 9.

8 All of our other water quality segments and

9 water bodies in the state have pH designated as 6.6 to

10 8.8 or 6.6 to 9. We have no waters that are currently

11 designated as less than 6.5. Therefore, the

12 hardness-based criterion would apply.

13 MR. DAIL: I concur.

14 MS. DeROSE-BAMMAN: Okay. But for -- and

15 then, Mr. Dail was saying earlier the -- for the Sulphur

16 Creek -- what criterion would you apply for Sulphur

17 Creek?

18 MR. DAIL: The criteria we apply for Sulphur

19 Creek is that which was supported by the UAA which was

20 passed by this Commission, that waters will be in

21 compliance if they are between pH 2 and 9.

22 MS. LEMON: For the aluminum, we haven't yet

23 approved this. So we can't say --

24 MS. DeROSE-BAMMAN: Right.

25 MS. LEMON: -- which one would apply and which

1   one wouldn't.

2   MS. DeROSE-BAMMAN: Did you --

3   MS. LEMON: Currently, it's the hardness-based

4   criterion that applies.

5   MS. DeROSE-BAMMAN: Okay. So also the

6   hardness -- the aluminum criteria is hardness-based, and

7   there is a caveat that no waters above 220 milligrams

8   per liter calcium carbonate apply?

9   MS. LEMON: No, we use the hardness -- 220 is

10   the max hardness.

11   MS. DeROSE-BAMMAN: Is that what the language

12   says?

13   MR. DAIL: Yes.

14   MS. DeROSE-BAMMAN: You've stricken in Table

15   900, Subsection I(3), for hardness values of greater

16   than 220, which is 300 and then 400 and above -- for

17   those rows, you've stricken the numbers that apply to

18   aluminum. Or is that your proposed amendment?

19   And then is there also the language that says

20   -- oh, I see.

21   In Section I -- the last section of Section I

22   on page 18, lines 18 and 19, explain what happens.

23   Okay. So that's the -- that's the language for

24   dissolved hardness.

25   MS. LEMON: Yes. For Section I, it says for

1 -- in paragraph I --

2   MS. PINTADO: Yes.

3   MS. LEMON: -- it's the last -- second-to-the-

4 last sentence "For aluminum, the equations are valid

5 only for dissolved hardness concentrations of zero to

6 220. For dissolved hardness concentrations above 220,

7 the aluminum criteria apply for 220 milligram per

8 liter."

9   So the language is in paragraph I that says

10 anything above 220, that 220 milligrams per liter

11 criteria will apply for aluminum.

12   MS. DeROSE-BAMMAN: Thank you.

13   Do you know -- are there a significant number

14 of waters that have hardness above 220?

15   MR. DAIL: There are indeed some waters above

16 220.

17   MS. DeROSE-BAMMAN: All right. I don't

18 remember.

19   Okay. I mean, 4,035 micrograms per liter of

20 aluminum seems to be a pretty high level of aluminum.

21   MR. DAIL: I can speculate that in development

22 of the model, Commissioner Rose de Bamman --

23 DeRose-Bamman -- is that the linearity of the model of

24 protectiveness of hardness may not have been as robust.

25 The more hardness you get, you don't necessarily get

1 more protection from aluminum.

2   MS. DeROSE-BAMMAN: Do you have any questions

3 on that?

4   I don't have any other questions on -- that's

5 it. Thank you.

6   MR. HUTCHINSON: Thank you. You got mine

7 answered.

8   MR. DOMINGUEZ: Commissioner Waters.

9   MR. WATERS: Okay. I've been digging through

10 the stacks of papers here trying to find something.

11   Going back to 26.4.101, I know we mentioned

12 the segment that was listed under Section 103. I know

13 that Las Cruces submitted comments and suggestions on --

14 for 101, Subsection A, they were questioning the primary

15 versus secondary contact. They mentioned that there was

16 a judicial proceeding in 2008 that designated the

17 segment within the Cruces city limits -- that that

18 segment that the secondary contact designation was

19 proper.

20   Do you have anything since that time from the

21 EPA that indicates that that should be primary?

22   MS. LEMON: It's not a change. It currently

23 is primary.

24   MR. WATERS: No, it's currently secondary, and

25 in the --

1   MS. LEMON: No. I don't believe that's true,

2   but --

3   MR. WATERS: Okay.

4   MS. LEMON: -- let me check.

5   MR. WATERS: That may not be a change. I know

6   they commented, and I didn't know what the Environment

7   Department's response to their comment was.

8   MS. PINTADO: The only change -- I'm sorry.

9   MR. DOMINGUEZ: Commissioner Waters, are you

10   referring to Section 101?

11   MR. WATERS: Yes. And I'm referring to the

12   May 13th, 2013, letter from the City of Las Cruces in

13   the -- basically, in the second paragraph.

14   MS. PINTADO: It looks like the primary

15   contact was not changed for this triennial.

16   MR. WATERS: So it stays as primary?

17   MS. PINTADO: The language, it was -- you may

18   be referring to the segment description.

19   MR. WATERS: Uh-huh.

20   MS. PINTADO: We changed language from below

21   to downstream in that segment description.

22   MR. WATERS: Okay. Because it says "Revised

23   NMAC" in the letter that Las Cruces sent. It says, "LCU

24   proposes the following revisions to be advanced: Revise

25   NMAC 26.4.101, Section A, Rio Grande basin designated

1   uses to reflect the result of the 2008 judicial

2   proceedings," blah, blah, blah, but basically we get

3   down to the bottom of that and they are talking about

4   adding, "except for the segment within the Las Cruces

5   city limits where secondary contact is applicable -- the

6   applicable contact designation." I assume they asked

7   for that to be added in.

8   Is that your understanding of that particular

9   letter in the comments?

10   MS. PINTADO: Yes, it sounds like it.

11   MR. WATERS: And did you address that with Las

12   Cruces in responding?

13   MS. PINTADO: We had no UAA to demonstrate

14   that it was secondary, and no UAA was approved by EPA

15   for that segment.

16   MR. WATERS: Okay. That's all I have.

17   MR. DOMINGUEZ: Okay.

18   Any additional questions from the Commission?

19   Seeing none, the Commission appreciates the

20   panel's indulgence and lengthy round of questions, and

21   we will turn that back to the Hearing Officer.

22   MR. CHAVEZ: Thank you, Mr. Chairman, Members

23   of the Board.

24   Are there any members of the public that wish

25   to cross-examine these witnesses?

1   Seeing none, I'm going to turn it back to

2   NMED.

3   MR. VERHEUL: Thank you, Mr. Hearing Officer.

4   We just have a few questions on redirect.

5   MR. CHAVEZ: Proceed.

6   REDIRECT EXAMINATION BY MR. VERHEUL

7   MR. VERHEUL: Ms. Pintado, this is in

8   reference to some questions from both Amigos Bravos as

9   well as Commissioner DeRose-Bamman with regard to

10 temporary standards.

11   Assuming that a temporary standard would be

12 applied for and approved by this Commission, how often

13 would that standard be reviewed at a minimum?

14   MS. PINTADO: Three years.

15   MR. VERHEUL: Ms. Lemon, in a temporary

16 standard kind of situation, and again this is in

17 reference to some questioning from Amigos Bravos and

18 Commissioner DeRose-Bamman.

19   In the scenario of multiple dischargers on a

20 single water body, assuming that only one discharger

21 were petitioning the Commission for a temporary

22 standard, why would other dischargers not have to submit

23 a work plan?

24   MS. LEMON: If -- if other dischargers have

25 the same impacts that the petitioner has, they can apply

1 for those standards -- the temporary standards to be

2 applied to their permit. If they do not do that, then

3 their current permit through state certification would

4 remain the same.

5   MR. VERHEUL: So you're saying their permit

6 limits that are in their current permit would not change

7 as a result of some other entity applying for and

8 receiving a temporary standard?

9   MS. LEMON: Yes.

10   MR. VERHEUL: And the permits that we're

11 talking about, those are administered by EPA, the

12 National Pollutant Discharge Elimination System permits;

13 is that right?

14   MS. LEMON: That's correct.

15   MR. VERHEUL: How does the state enforce

16 maintaining those existing limits within those permits?

17   MS. LEMON: It's through the state

18 certification process through Section 401 of the Clean

19 Water Act.

20   The state is allowed to certify NPDES permits,

21 and in that process we can condition them to -- where

22 they must meet certain water quality effluent limits or

23 they must have certain requirements in their permits or

24 we can comment on that through the state certification

25 process.

1   MR. VERHEUL: Ms. Pintado, this is getting

2   back again to the temporary standards proposal and a

3   line of questioning from Commissioner DeRose-Bamman.

4   For a municipality that maybe has a -- let's

5   say a nitrogen exceedance, would there be any benefit

6   for them utilizing a temporary -- or applying for a

7   temporary standard versus the use attainability analysis

8   process?

9   MS. PINTADO: Yes.

10   First, the nutrient standard is the correct

11   standard and cannot be changed with a UAA.

12   Second, a petitioner for a municipality can

13   tailor a temporary standard for a more flexible

14   individual solution to meet the nutrient standard.

15   Third, a timeline, with milestones that are

16   measures of success, are controlled by the petitioner

17   and the petitioner crafts the plan to achieve the

18   standard.

19   MR. VERHEUL: So you would characterize that

20   then as a more flexible process potentially for the

21   municipality to choose?

22   MS. PINTADO: Yes.

23   MR. VERHEUL: I'm not sure who this question

24   is for. This is on the topic of temporary standards.

25   Commissioner Hutchinson asked about the amount

1 of work involved in the preparation and review of a

2 temporary standard.

3   How would that amount of work and expertise

4 required compare with completing the UAA process?

5   MS. PINTADO: I would expect it would not be

6 as complex, but it would depend on the demonstration.

7   MR. VERHEUL: But conceivably the temporary

8 standard process would be -- would require less work

9 potentially and less expertise than the current UAA

10 process?

11   MS. PINTADO: Yes.

12   MR. VERHEUL: Okay. And I think this is my

13 last redirect question.

14   Regarding the piscicide proposal, do our

15 proposed changes apply to piscicide use that is not

16 permitted by NPDES permits?

17   MS. PINTADO: Yes.

18   MR. VERHEUL: And so if it's covered by a

19 NPDES permit, then our proposed changes do not apply; is

20 that correct?

21   MS. PINTADO: Except for the post-monitoring

22 assessment and monitoring -- post-application monitoring

23 and assessment, yes.

24   MR. VERHEUL: Okay. That concludes my

25 redirect.

1   Thank you, Mr. Hearing Officer.

2   MR. CHAVEZ: Thank you.

3   NMED, do you have anything else?

4   MR. VERHEUL: No, Mr. Hearing Officer.

5   MR. CHAVEZ: Okay. Thank you.

6   Seeing that Freeport is going to need some

7 time, because they have a presentation to set up, that's

8 going to take us into the lunch hour, so I'm going to

9 ask one more time, is there any public comment that we

10 can take at this time?

11   Excuse me. The witnesses are excused at this

12 moment.

13   Please have a seat and state your name.

14   MS. GORDON: Thank you. My name is Susan

15 Gordon. I'm the coordinator for the Multicultural

16 Alliance for a Safe Environment.

17   MR. CHAVEZ: Ms. Gordon -- let's go ahead and

18 swear in the witness.

19   (Oath administered to Susan Gordon.)

20   MR. GORDON: Thank you.

21   SUSAN GORDON

22   after having been first duly sworn or affirmed,

23   provided public comment as follows:

24   PUBLIC COMMENT

25   MS. GORDON: So I have a statement from the

1 Multicultural Alliance for a Safe Environment and the

2 Bluewater Valley Downstream Alliance, which is one of

3 the core groups of our network.

4 And just so you know, we work in the Grants

5 mining district, primarily on uranium mining and milling

6 and cleanup and health issues out there.

7 The Bluewater Valley Downstream Alliance and

8 the Multicultural Alliance for a Safe Environment offer

9 the following comments based on our experience living

10 next to the uranium mill tailings Superfund site owned

11 by Homestake-Barrick Gold for over 40 years. The site

12 is located north of Milan, New Mexico.

13 Water quality regulations were non-existent

14 when the mill tailings were first deposited next to our

15 communities south and west of the Homestake-Barrick Gold

16 site. The tailings piles have leached radioactive and

17 toxic pollutants into groundwater, creating a

18 contaminant plume that has leaked into four aquifers.

19 BVDA and MASE hope to protect its last

20 remaining fresh water regional aquifer, the San

21 Andres-Glorieta aquifer, from Homestake-Barrick Gold's

22 contaminant plume. The San Andres aquifer supplies

23 fresh domestic water for the municipalities of Grants

24 and Milan.

25 Other uranium mining companies and mills in

1   the Ambrosia Lake area were also allowed to discharge

2   radioactive contaminants and toxic chemical pollutants

3   into New Mexico's surface waters and arroyos with

4   virtually no regulation until the 1970s.

5   Corrective state and federal water quality

6   regulations since then are continually being relaxed to

7   meet the needs of the uranium industry when they are

8   unable to comply with the existing regulatory framework.

9   Homestake-Barrick Gold has been conducting

10   groundwater remediation at the Superfund site since

11   1977. A groundwater corrective action plan for remedial

12   activities at the site was approved by the NRC in 1986.

13   Amendments to the plan are still under review by the

14   NRC. And in 2014, NMED renewed Discharge Permit 200 for

15   Homestake-Barrick Gold, allowing the injection of water

16   into the subsurface that exceeded the NRC-approved

17   groundwater protection standards.

18   MASE and BVDA contend that this ongoing

19   circuit of non-compliance and weakening of the

20   regulatory standards threatens our present and future

21   water supplies for domestic and agricultural uses,

22   contrary to the letter and intent of New Mexico's water

23   quality standards.

24   Overpumping of hydraulically connected

25   groundwater by Homestake-Barrick Gold means that our

1 critical water needs, both present and future, will

2 depend solely on regional groundwater aquifers as

3 surface flows within the San Mateo Creek basin are

4 depleted.

5 BVDA estimates that enough water has already

6 been lost in the Ambrosia Lake area to supply all of

7 Albuquerque's water for at least seven years, perhaps

8 longer.

9 We are appalled that the NMED would compound

10 its mistake and its complicity with past polluters by

11 proposing to allow future polluters to apply for weaker

12 standards in the waters into which they discharge.

13 The proposed changes will result in weaker

14 permit limits and increased pollution into New Mexico's

15 rivers and streams. New Mexico cannot afford to

16 sacrifice the remaining fresh water supplies that our

17 children and grandchildren will need to live, work, and

18 raise their families.

19 The proposed regulations do not even require

20 public hearing when an applicant requests temporary

21 weaker standards.

22 In addition, the absence of a time limit on

23 temporary standards will lead to a permanent weakening

24 of water quality standards, contrary to the preservation

25 of New Mexico's scarce water supplies in an era of

1 extreme weather and climate change.

2   The federal Clean Water Act allows variances

3 from existing water quality standards, for specified

4 periods of time, to resolve questions concerning the

5 appropriateness of specific criteria. Variances are

6 generally not renewable, but may be reissued upon

7 adequate justification following public review and EPA

8 approval.

9   If the New Mexico Water Environment Department

10 is simply trying to ease the corporate burdens of

11 cleanup for its corporate citizens, then these proposals

12 might make sense. But BVDA and MASE believe the Water

13 Quality Control Commission is concerned about the

14 viability of New Mexico's future water supplies, much of

15 which has already been sacrificed for Cold War era

16 uranium production in Northwestern New Mexico.

17   We urge the Commission to reject the proposed

18 revisions and to adopt the proposal to strengthen the

19 aluminum standard as put forth by Amigos Bravos.

20   Thank you.

21   MR. CHAVEZ: Thank you very much.

22   Anybody else in the audience with public

23 comment?

24   Thank you.

25   Seeing none, we're going to go ahead and break

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1 until 1:00, at which point Freeport will present their

2 case.

3 Thank you.

4 (Recess held from 11:46 AM to 1:10 PM.)

5 (Commissioner Sayer no longer present.)

6 MR. DOMINGUEZ: If everybody would kind of get

7 settled, we will go ahead and get started back up.

8 We will turn it back over to the Hearing

9 Officer.

10 MR. CHAVEZ: Mr. Chairman, thank you.

11 We're back on the record.

12 At this point I would like to look to the

13 audience to see if there is any public comment.

14 Great. If one of you could come forward first

15 and be sworn in.

16 (Oath administered to Susan Rodriguez.)

17 MS. TOWNSEND: If you could state your name.

18 MS. RODRIGUEZ: Susan Rodriguez,

19 R-o-d-r-i-g-u-e-z.

20 SUSAN RODRIGUEZ

21 after having been first duly sworn or affirmed,

22 provided public comment as follows:

23 PUBLIC COMMENT

24 MS. RODRIGUEZ: Good afternoon.

25 I had a little car trouble, but I got over

1   that.

2   I live down in Albuquerque, and I'm involved

3   in different water issues that we're concerned about the

4   quality -- we're -- the group -- I'm involved with

5   several different groups, and I've lived in Albuquerque

6   since 1988.

7   I have a daughter who was born here, and she's

8   now 26 and graduated from the University, and we really

9   enjoy New Mexico, and we're concerned about the quality

10   of the water -- very much concerned about it.

11   I had no idea of the pollution and the serious

12   nuclides even in our water. Which I think the last time

13   we met, Arjun Makhijani came and he was successful in

14   trying to -- in, I guess, educating people about the

15   dangers of some of these nuclides that are in our water.

16   He had an institute over in California, and his name is

17   Arjun Makhijani.

18   Well, with that in mind, I'm here again, and I

19   understand that -- and I stand with Amigos Bravos in

20   what they are saying. But to more or less try to put it

21   not in my own words, but I do support them, that the New

22   Mexico Environment Department -- if you'll allow me to

23   read a little bit -- "The New Mexico Environment

24   Department is proposing to allow industry to apply for

25   weaker standards in the water into which they discharge.

1   This would facilitate a process that would allow the

2   industry to permit -- to have weaker permits and result

3   in increased pollution into New Mexico's rivers and

4   streams. The proposal does not even require a public

5   hearing prior to adopting these weaker standards. By

6   not placing a time limit on these temporary standards,

7   it would in effect allow a permanent weakening of water

8   quality."

9   I ask you to -- okay -- to reject the

10 temporary standards proposal, or at the very least, to

11 ensure temporary standards -- that they don't apply to

12 new discharges.

13   My second point would be the small ponds here

14 in New Mexico where people fish, and there is an

15 industry proposal, and I oppose that, that they want to

16 weaken the standards in small ponds and wetlands. These

17 ponds and wetlands are often found in the headwaters of

18 our rivers and help deliver clean water to

19 downstreamers, of which us in Albuquerque are part of.

20   Allowing these -- pollution in these

21 headwaters would impact communities downstream that use

22 this water for drinking, irrigation and recreation.

23   Please, I would ask you to reject the proposal

24 to weaken standards for small ponds and wetlands.

25   And very important, also, my third point would

1   be the aluminum water quality criteria.

2   So several years ago I understand the mining

3   industry successfully petitioned to downgrade -- that

4   is, weaken -- the New Mexico aluminum water quality

5   criteria, which was the standard.

6   The Amigos Bravos proposal is to reverse this

7   downgrade and restore aluminum protection to a level

8   that is protective of fish and other aquatic life, and I

9   ask you to adopt this proposal and strengthen the

10   aluminum standard.

11   And, lastly, is that myself, and groups I

12   represent, stand for -- CCNS, Concerned Citizens of

13   Nuclear Safety -- for a 90-day -- I guess a postponement

14   -- a 90-day extension of time. This -- sorry.

15   I understand that NMED is supposed to release

16   a draft revised consent for public comment, and I want

17   you to consider that -- what NMED -- what Joni Ahrens of

18   CCNS is asking for, this 90-day extension, that it be

19   considered. More time is needed to listen to these

20   protests and to these considerations.

21   That's all I have to say. Thank you very

22   much.

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

24   Next.

25   Please have a seat to be sworn in and state

1 your name for the record.

2   (Oath administered to Janet Greenwald.)

3   JANET GREENWALD

4   after having been first duly sworn or affirmed,

5   provided public comment as follows:

6   PUBLIC COMMENT

7   MS. GREENWALD: My name is Janet Greenwald,

8 and I am co-coordinator of Citizens for Alternatives to

9 Radioactive Dumping, which is a statewide organization,

10 and I'm the facilitator of the water groups, which is an

11 Albuquerque-based organization.

12   Concerning the temporary standards proposal,

13 both Santa Fe and Albuquerque, as you know, now drink

14 out of the Rio Grande, where many of the smaller streams

15 end up.

16   Many of the standards for chemicals and

17 radionuclides are based on adult tolerances for those

18 chemicals and radionuclides, and there is very little

19 known about the tolerances for the fetus and the young

20 child, and so it behooves us to keep our streams as

21 clean as we can.

22   There is a whole realm of research being done

23 on the effects of chemicals on the child and the fetus,

24 and a number of ladies are beginning to be connected

25 with these chemicals and pesticides, and one of those is

1   Alzheimer's -- not Alzheimer's, I'm sorry -- I can't --

2   I can't think of the name right now. It's the illness

3   that makes it hard for children to speak and makes it

4   hard for them to relate to other people. You know, I

5   can see a child with it who I had once in a classroom,

6   but I can't remember the name.

7   MR. CHAVEZ: Is it autism?

8   MS. GREENWALD: There you go. Thank you.

9   Yes, autism.

10   There are European studies now that are

11   linking autism to overexposure to chemicals, and that

12   comes -- that study shows us that children living in

13   rural areas where pesticides are used heavily suffer

14   from autism more than urban children.

15   As far as small ponds and wetlands are

16   concerned, along these same lines, we need to protect

17   these wetlands and small ponds.

18   As far as the aluminum water quality criteria,

19   tourists are not going to come to New Mexico to fish in

20   dead and dying streams. As you know, tourism is our

21   number one industry.

22   We oftentimes think of regulation as

23   inhibiting industry, but I think restoring our aluminum

24   standards to those -- to standards that are more in line

25   with other states will actually help the tourist

1 industry, not -- not impede it in any way.

2   I'd like to say a few words about regulation

3 in general. We always are thinking of regulations, as I

4 just said, as something that impedes industry, but it's

5 my belief that if the New Mexico Environment Department

6 had been in the room with the workers and their

7 supervisors who were putting wastes in the drums at Los

8 Alamos that went to WIPP, that WIPP would still be open

9 and doing business right now.

10   So you have to recognize that regulation

11 sometimes is the best thing for all of us, including

12 business people.

13   Our group stands with CCNS in asking for a

14 90-day extension of time for consideration of the

15 groundwater discharge permit for waters from the

16 chromium plume at Los Alamos.

17   Thank you very much for your time and all your

18 work.

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

20   I believe we have one more. Please approach,

21 sir.

22   (Oath administered to Eric Patterson.)

23

24

25

1   ERIC PATTERSON

2   after having been first duly sworn or affirmed,

3   provided public comment as follows:

4   PUBLIC COMMENT

5   MR. PATTERSON: My name is Eric Patterson.

6   Can you hear me okay?

7   Okay. I'm from downtown Valdez, New Mexico.

8   I'm co-priority of Stoney Acre Farm. I'm a retired

9   chemist and chemistry teacher.

10   I want to talk about the aluminum standards.

11   Three years ago, we changed the aluminum standards based

12   on -- to something that's based on hardness and pH.

13   I coordinate a group of volunteers that go out

14   and measure and monitor water quality in the streams of

15   Taos County.

16   Three or four years ago, we started monitoring

17   the Red River, because we heard there was going to be a

18   Superfund cleanup there and we wanted to monitor

19   progress. We found a lot of aluminum up there, total

20   aluminum, as assayed by an EPA-certified laboratory in

21   Alamosa, Colorado.

22   I'm a little concerned that changing the

23   standards might not have been such a good idea. I read

24   the paper by Gunderson a few years ago in the Journal of

25   Canadian Marine Fisheries -- it's hard for me to say

1 that with a straight face -- and based on what he says,

2 I don't think we should have changed the standards.

3   I'm seeing aluminum, but the other thing that

4 troubles me, although the hardness seems to be fairly

5 consistent in the four different monitoring sites that

6 we've done in Red River, the hardness is consistent but

7 the pH is not, it's usually high. It sometimes takes a

8 big dip in a couple of miles between monitoring sites.

9 That means that the aluminum is going to be in a

10 slightly different form.

11   Aluminum chemistry is kind of complicated, and

12 I don't pretend to understand all of it, but I think

13 that we should err on the side -- on the side of

14 caution.

15   One of the big reasons for that is it's not

16 just that we have aluminum that's in the Red River, it's

17 going to be in the Rio Grande, where people get the

18 drinking water, but also the Village of Questa has been

19 financially and economically in pretty bad straits for a

20 long time. It's not a very prosperous community.

21   And through the efforts of Trout Unlimited and

22 some other organizations, they've -- not only thanks to

23 Chevron for dredging Elephant Butte Lake, but downstream

24 from there, they are going to -- and they've already

25 started building a fishing park, which should bring a

1   lot of revenue in to the Village of Questa. This

2   fishing park will be accessible to tourists and

3   residents like me who like to fish.

4   Also, I think this is going to be a big

5   economic boom for Questa. But if we're going to do that

6   and we're going to put trout in there, do we really want

7   to take a chance on having aluminum kill off trout

8   fingerlings? I don't think so.

9   You know, my grandmother always told me "Clean

10   up your mess."

11   For the aluminum standards, it seems like

12   we're trying to define what is a mess. I think that the

13   aluminum there has the potential -- and it's definitely

14   there -- downstream from the mine in all the three

15   locations we've monitored, it's definitely there. If we

16   have runoff from an arroyo that makes the water somewhat

17   acidic, the aluminum will go way up, and this will be

18   toxic to a lot of things, not just fish.

19   So I would urge you to revert to the previous

20   standards and I think that will help a lot.

21   Do you have any questions for me?

22   MR. CHAVEZ: You know, sir, at this time this

23   is really just public comment.

24   MR. PATTERSON: Okay. Good enough.

25   Thank you very much.

1   MR. CHAVEZ: Thank you.

2   At this time, we're going to move to Freeport.

3   Counsel, are you ready?

4   MS. CHAPPELLE: Yes, we're ready.

5   MR. CHAVEZ: You may proceed.

6   MS. CHAPPELLE: Why don't you guys come up.

7   MR. CHAVEZ: And just for clarification,

8   you're not going to the presentation yet, right?

9   MS. CHAPPELLE: In about five, ten minutes,

10   yes.

11   MR. CHAVEZ: As soon as you're about to, let

12   us know, because I want the Commissioners to have a

13   chance to move here.

14   MS. CHAPPELLE: I don't want to shine the

15   light in your eyes.

16   (Oath administered to Joseph S. Meyer and

17   Barry Fulton.)

18   MS. CHAPPELLE: Good afternoon, Mr. Chairman,

19   Commissioners, Hearing Examiner Chavez and parties.

20   My name is Germaine Chappelle, and I'm a

21   lawyer with Gallagher & Kennedy. With me today is Dalva

22   Moellenberg and Konstantin Parkhomenko.

23   We represent Freeport-McMoRan Chino Mines,

24   which operates the Chino Copper Mine.

25   We appreciate the opportunity to present

1   testimony to you today supporting Chino's petition as

2   part of the triennial review process.

3   Chino's petition is filed in accordance with

4   NMAC 20.6.4 to adopt site-specific aquatic life criteria

5   for copper in a limited geographic area referred to as

6   the Chino Mines Smelter Tailings and Soil Investigation

7   Unit, which we commonly refer to as STSIU, located in

8   Grant County, New Mexico, near the towns of Hurley and

9   Bayard, which both are about 11 miles east of Silver

10   City in a general direction.

11   First, just as a procedural matter, I would

12   note that our NOI also indicates our support of a couple

13   things that aren't within our petition.

14   Briefly, Chino supports the current

15   hardness-based aquatic life criteria for aluminum as

16   currently stated in NMAC 20.6.4.900.

17   Chino also supports NMED's proposal to add a

18   new provision under NMAC 20.6.4.10.F to adopt temporary

19   standards for surface waters in the state; and as you

20   might guess, Chino further supports NMED's petition and

21   the testimony of Ms. Pintado regarding adoption of the

22   portion of NMED's petition regarding the HP protocol for

23   Chino STSIU waters.

24   In support of Chino's proposal, Chino will

25   present two expert witnesses, Mr. Barry Fulton and

1   Dr. Joseph Meyer, who have previously submitted direct

2   testimony providing the technical basis for

3   site-specific criteria that is being proposed by Chino

4   today.

5   The testimony also describes the history of

6   Chino's proposal involving communication with NMED and

7   the US EPA dating back to the year 2010.

8   The witnesses will also testify as to the

9   details and scientific veracity of the toxicological

10   study that was performed to justify the proposed

11   criteria.

12   Chino would like to request that Mr. Fulton

13   and Dr. Meyer be allowed to answer questions as a panel

14   after they have finished summarizing and presenting

15   their testimony to this Commission.

16   You may note that also attached to our NOI are

17   two exhibits providing potential rule language. Those

18   are Exhibits H and I.

19   Pursuant to discussion with NMED, and as

20   stated in Chino's NOI, Chino conditionally accepts

21   NMED's preferred language in Exhibit I.

22   The reason for the conditional approval or

23   support is that the language -- and we'll discuss this

24   further with our exhibits, but the language in Exhibit I

25   tracks approval of the HP in NMED's petition, and so

1   without approval of the HP in NMED's petition, we would

2   need to probably modify language in Exhibit I.

3   Further, we would like to thank NMED for all

4   of their hard work, not only with respect to the HP, but

5   also with the site-specific portions of our petition.

6   NMED has been extremely diligent and professional in

7   working with us to come up with a solution, and we

8   appreciate that greatly. And that has actually afforded

9   us to resolve all technical issues that have been raised

10   with NMED, which we will also discuss in our testimony.

11   The only remaining objection included in

12   written testimony is from Ms. Conn with Amigos Bravos,

13   and that has to do with her assertion that Chino's

14   petition is deficient because it did not provide enough

15   detail regarding Chino's public participation process.

16   As you may note in Dr. Dail's rebuttal

17   testimony, Dr. Dail did not share that conclusion and

18   indicated in his testimony that he felt not only that

19   Chino's petition was sufficient but that Chino's

20   community involvement process was sufficient as well.

21   I would note that he indicated support for us,

22   including additional information in that regard, and we

23   are prepared to do that today in the nature of live

24   surrebuttal testimony.

25   With that, one thing that I have discussed

 1 with the Hearing Examiner and parties is a request that

 2 I'd like to just make real quick with respect to

 3 bringing Dr. Dail's rebuttal testimony up after our

 4 direct.

 5   The reason for that is we have really no other

 6 rebuttal testimony at all, either from us or from other

 7 parties, and because we feel that there is agreement

 8 with NMED and us with respect to our petition, it would

 9 essentially nicely package for the Commission resolution

10 of the issues essentially today rather than kind of

11 postponing it into tomorrow after you've heard a bunch

12 of different testimony.

13   The only other factor I would note there is

14 that we do have two experts from out of state, that if

15 we could get them back home sooner rather than later,

16 that would obviously be appreciated, but we defer to the

17 Hearing Examiner and the Commission's thought process on

18 that.

19   So with that, I'm ready to go into our

20 testimony, unless you want to decide or give us some

21 direction on rebuttal.

22   MR. CHAVEZ: Let's do that at the end.

23   MS. CHAPPELLE: Okay.

24   MR. CHAVEZ: Are you ready to go?

25   MS. CHAPPELLE: Yes, we are ready to go. I

1 believe this is ready to go, but we may need to flip a

2 switch, but I'm not sure. Is it already flipped?

3   MR. CHAVEZ: Mr. Chairman, at this time I'd

4 like to give the Commissioners an opportunity to move

5 into the audience or wherever they choose so they can

6 get a good view. Can we dim the lights?

7   MS. CASTANEDA: Yes.

8   MS. CHAPPELLE: What we're doing is just

9 handing out a copy of the slide presentation for

10 everyone. We have enough, I believe, for the folks in

11 the audience. We made about 30 copies.

12   The presentation really just pertains to the

13 technical testimony already filed in the case, there is

14 nothing new in this presentation, but we thought it

15 would just afford a little easier way to get through

16 that.

17   So with that, as that's being passed out, I'm

18 going to start asking Mr. Fulton some quick questions.

19   BARRY FULTON

20   after having been first duly sworn or affirmed,

21   was examined and testified as follows:

22   DIRECT EXAMINATION

23 BY MS. CHAPPELLE:

24   Q.   Mr. Fulton, would you please state your name

25 for the record?

1   A.   Barry Fulton.

2   Q.   And what is your occupation, Mr. Fulton?

3   A.   Environmental scientist.

4   Q.   And where are you employed?

5   A.   Arcadis US.

6   Q.   And what is your current job title?

7   A.   Senior environmental scientist.

8   Q.   Please summarize your education, experience

9 and qualifications as it relates to your testimony here

10 today?

11   A.   I have a bachelor's degree with majors in

12 ecology and environmental science, with minors in

13 chemistry and biology.

14   I also hold a master's of science degree in

15 environmental science, with a particular emphasis in

16 aquatic toxicology.

17   Prior to joining my current company, Arcadis,

18 I worked as a research scientist at the Center for

19 Reservoir and Aquatic Systems Research, where I managed

20 a variety of studies that assessed water quality within

21 streams and lakes.

22   Also as part of that job, I had a

23 responsibility to manage an aquatic toxicology testing

24 laboratory, where I was responsible for designing,

25 interpreting and reporting those results using a variety

1   of standardized aquatic test species.

2   I began working at Arcadis in 2009 as an

3   environmental scientist; and as part of this position, I

4   have designed, conducted and managed a variety of water

5   quality studies for regulatory purposes. Most of these

6   studies focus specifically on water quality standards,

7   including understanding the fate, transport and effects

8   of metals in aquatic systems.

9   Additionally, I am actively involved in the

10   scientific community through participation in membership

11   with the Science -- Society of Environmental Toxicology

12   and Chemistry and also through publication in the

13   scientific literature, where, thus far, I have published

14   six peer-reviewed articles.

15   Q.   Thank you, Mr. Fulton.

16   MS. CHAPPELLE: At this time, I would like to

17   tender Mr. Fulton as a qualified expert witness in

18   aquatic metals toxicology and water quality criteria.

19   MR. CHAVEZ: (Nods head.)

20   Q.   (BY MS. CHAPPELLE) With that, Mr. Fulton,

21   could you please proceed with the presentation?

22   A.   Yes.

23   So this presentation really provides an

24   overview of the site-specific copper criteria that's

25   being proposed by Freeport-McMoRan Chino Mines Company,

1　which hereafter I'll refer to as Chino.

2　　　　　I'll also mention here that all of the content

3　and technical information that is included in this

4　presentation is contained in the actual -- the

5　underlying report to this study, which has been filed as

6　Exhibit B in this petition.

7　　　　　So, overall, the petition proposes site-

8　specific copper criteria in certain drainages in one of

9　the areas of the Chino Mine site referred to as the

10　Smelter Tailings and Soils Investigation Unit, which

11　we'll refer to as STSIU, that's located near Bayard and

12　Hurley, New Mexico.

13　　　　　So this slide presents a map of that area,

14　which is the area located within -- within the orange

15　boundary line there, and so it's these blue drainage

16　lines that are actually proposed or petitioned for the

17　site-specific copper criteria.

18　　　　　And just for context here, the STSIU area

19　includes areas primarily affected by historical

20　wind-blown smelter emissions.

21　　　　　The STSIU area and the drainages that are

22　proposed for this site-specific criteria does not

23　include other various investigation units that are

24　associated with Chino Mine sites, including what is

25　referred to as the Hanover/Whitewater Creek

1 Investigation Unit, or IU, the Hurley Soils

2 Investigation Unit, and Lampbright Investigation Unit.

3   And so just to continue with the overview,

4 Chino's proposed site-specific criteria are calculated

5 based on a multiple regression model that uses two water

6 chemistry parameters, alkalinity and dissolved organic

7 carbon, which Dr. Meyer will discuss in more detail

8 later in the presentation.

9   And I'll point out here that as part of

10 Chino's proposed rule language, a portion of waters

11 located within the STSIU area, referred to as critical

12 habitat for the Chiricahua Leopard Frog, are excluded

13 from the petitioned waters.

14   So this slide provides a general chronology of

15 the site-specific criteria study.

16   So the genesis of this study really stems from

17 the 2009 New Mexico Triennial Review of Surface Waters,

18 which resulted in the provisions for site-specific

19 criteria.

20   In 2012, Dr. Meyer and myself began developing

21 a work plan for the types of investigations that would

22 be required to support a site-specific standard.

23   We submitted that work plan to NMED and US EPA

24 Region 6 in 2011, and subsequently in 2011 conducted the

25 field sampling and the laboratory toxicity testing.

1   The initial results from this study were

2   reported in 2012 in a draft interim report. And

3   following comments received from the New Mexico

4   Environment Department, a revised interim report and a

5   copper toxicity model report was submitted in 2013.

6   These results were also published in the

7   peer-reviewed scientific literature, which is also --

8   which was published in 2014, which is also when we

9   submitted our petition for the site-specific criteria,

10   leading us to these hearings today.

11   And I'll note on this slide that the public

12   participation process really actively began in 2013 when

13   the copper toxicity model report was finalized.

14   Q.   Thank you, Mr. Fulton.

15   Now, would you please turn to Freeport's NOI?

16   And for the benefit of other folks, the NOI is

17   referenced as number 24 on the pleading log.

18   Mr. Fulton, if you could please turn to page

19   three.

20   A.   Yes.

21   Q.   I note there, Mr. Fulton, that there are

22   several exhibit designations.

23   Do you see that? It's on page three of the

24   NOI.

25   A.   Yes.

1   Q.   Okay. So with respect to Exhibit A, would you

2 mind turning to that and briefly describing what that

3 is?

4   A.   Okay. So Exhibit A presents a map of the

5 STSIU area and the drainages petitioned for the proposed

6 site-specific criteria.

7   I note here, just for background and context

8 to the Commission, that with my personal involvement in

9 the field sampling aspect of the study, I also have

10 direct knowledge of the site characteristics; and as I

11 described in my testimony to the petition, the STSIU

12 area is located in a rough mountainous region and is

13 characterized as having ephemeral to intermittent waters

14 that really only flow in direct response to monsoonal

15 precipitation, with more persistent pools located in

16 bedrock drainages.

17   On the map presented in Exhibit A, it includes

18 a thick black line that is noted in the legend as the

19 critical habitat transect, which is excluded from

20 consideration for site-specific criteria, and that's

21 also noted in the map legend to Exhibit A.

22   Q.   Thank you, Mr. Fulton.

23   And just for the benefit of Commissioners,

24 what we're doing now is we're actually going through the

25 exhibits attached to the NOI just for your reference.

1   They are not going to flash up on the screen for right

2   now.

3   Mr. Fulton, could you please clarify the

4   reason for CLF exclusion?

5   A.   Sure.

6   We -- although we feel that scientifically the

7   site-specific criteria can be supported in the

8   Chiricahua Leopard Frog critical habitat, based on

9   comments received from stakeholders, we made a decision

10   to exclude that from consideration in this petition.

11   Q.   Thank you, Mr. Fulton.

12   And we've heard some conversation about

13   various units within the Chino Mines properties.

14   Can you describe what those units are part of,

15   please?

16   A.   So the various units, or IUs, are established

17   as part of an administrative order on consent between

18   the New Mexico Environment Department and Chino Mines

19   Company; and as part of that AOC, administrative order

20   on consent, they designate various areas as

21   investigation units for studying them.

22   Q.   Thank you, Mr. Fulton.

23   Do you recall the earlier testimony of NMED

24   witnesses, and I believe it was Ms. Pintado, describing

25   unnamed ephemeral tributaries, although it could have

1 been Dr. Dail, as well, with respect to HP protocol?

2   Would you characterize this area as consistent

3 with that description?

4   A.   Yes. I would characterize the majority of

5 these streams as ephemeral, with some intermittent

6 drainages as well.

7   Based on my experience sampling all of these

8 streams and being in the field throughout multiple

9 seasons, I can assure you that there are no perennial

10 streams on this mine site.

11   Q.   Thank you.

12   Now, with respect to the relationship between

13 Ms. Pintado's testimony of the Chino waters and the HP,

14 what is the relationship of that with this particular

15 exhibit?

16   A.   I'm sorry, can you --

17   Q.   Sure.

18   A.   -- rephrase that question?

19   Q.   What is the relationship between this area and

20 these waters and the area before the Commission in the

21 HP?

22   A.   So these waters were also petitioned by

23 Ms. Pintado based on a HP study conducted on these

24 waters.

25   Q.   And are they substantially the same

1 description?

2   A.   Yes.

3   Q.   Thank you, Mr. Fulton.

4   Moving now to Exhibit B, can you briefly

5 describe that exhibit?

6   A.   Exhibit B is the underlying study report,

7 which is the subject of the petition and really forms

8 the technical basis of the petition.

9   So, in brief, the report describes the methods

10 used to develop the site-specific criteria, the full

11 chemistry and toxicity results, the statistical analyses

12 of these results, and ultimately the process by which we

13 derive the site-specific criteria, a description of the

14 equation which is the basis of the site-specific

15 criteria.

16   Q.   Thank you.

17   Moving to Exhibit C -- and for Exhibit B and

18 C, Mr. Fulton, could you also describe your personal

19 involvement with those documents?

20   A.   So Exhibit B, the study report, myself and

21 Dr. Meyer authored that report.

22   And moving to Exhibit C, which is the peer-

23 reviewed publication of the study, the same thing,

24 Dr. Meyer and myself authored this peer-reviewed report

25 as well.

1   The peer-reviewed publication filed as Exhibit

2   C really also informs the scientific basis of the

3   petition. And for reference, we decided to publish

4   these results in the scientific literature, at least in

5   part at the suggestion of the New Mexico Environment

6   Department.

7   Q.   Thank you, Mr. Fulton.

8   And with respect to the exhibits titled -- or

9   designated as Freeport Exhibits A through C, do you have

10   any changes to make to those documents today?

11   A.   No, I do not.

12   Q.   And as of the day that they were drafted, do

13   they remain true and correct today?

14   A.   Yes.

15   Q.   Such that you would adopt them -- you would

16   move for adoption -- or you would request they be

17   adopted in front of this Commission?

18   A.   Yes.

19   Q.   Thank you.

20   Moving now to Exhibit F, Mr. Fulton, could you

21   please give us a general description of that document?

22   A.   Exhibit F is my resume.

23   Q.   Do you have any changes to make to this

24   document?

25   A.   No, I do not.

1   Q.   And given the testimony you've provided

2   already, does that testimony square with this document?

3   A.   Yes, it does.

4   Q.   And would you support admission of this

5   document before the Commission?

6   A.   Yes.

7   Q.   Moving now to Exhibit G, would you please

8   identify that document?

9   A.   Exhibit G is my direct written testimony.

10   Q.   Okay. Do you have any changes to this

11   document, Mr. Fulton?

12   A.   Yeah. The only change I note today is that my

13   written testimony states that since 2009 I was -- I have

14   been employed as a senior scientist with Arcadis, and

15   that was an oversight, as I was hired by my company in

16   2009 as an environmental scientist and have subsequently

17   been promoted to a senior scientist.

18   But that would be the only change I have to

19   Exhibit G.

20   Q.   Thank you, Mr. Fulton.

21   With that change, would you recommend adoption

22   by this Commission of that exhibit?

23   A.   With that change, yes.

24   Q.   Thank you.

25   Moving now, Mr. Fulton, to Exhibits H and I,

1 could you please give a description of those exhibits?

2   A.   Sure.

3   Exhibits H and I are two versions of the

4 proposed rule. My understanding is that New Mexico

5 Environment Department, if adopted by the Commission,

6 would prefer Exhibit I as the basis of the rule

7 language.

8   I note here that if it -- if Exhibit I were to

9 be adopted by the Commission and the hydrology-based --

10 hydrology-protocol-based UAA that was discussed by

11 Ms. Pintado yesterday for these waters were to be

12 rejected, there would -- it would require revisions to

13 some of the language that pertained to the designated

14 uses listed for these waters.

15   But otherwise, as I understand, there is no

16 difference of opinion between Chino and the New Mexico

17 Environment Department of the rule itself, and Chino

18 would defer to NMED's decision on how they want the rule

19 organized administratively, if adopted by the

20 Commission.

21   Q.   Thank you, Mr. Fulton.

22   Are you familiar with Dr. Dail's rebuttal

23 testimony on page 39?

24   And for easy reference for everyone else,

25 that's pleading log number 34, Rebuttal Exhibit 14.

1   A.   Yes, I am.

2   Q.   And could you please summarize Dr. Dail's

3   position with respect to Exhibit I in the testimony?

4   A.   It appears that Dr. Dail would prefer Exhibit

5   I as the basis of the rule language.

6   Q.   Thank you.

7   Moving now to the opposition noted by Amigos

8   Bravos regarding Chino's petition, Mr. Fulton, would you

9   please summarize your understanding of Ms. Conn's

10   opposition located on page 10 of her direct testimony?

11   And that is, for everyone else's reference, pleading log

12   19.

13   A.   Yes.

14   So the testimony of Ms. Rachel Conn alleges

15   that our petition is deficient, in saying that "Chino

16   fails, however, to indicate how many members of the

17   public or other stakeholders attended this meeting and

18   does not disclose, let alone 'present response to the

19   public input received,' in their petition."

20   Q.   Okay. Are you familiar with Rule 20.6.4 of

21   the NMAC?

22   A.   Yes, I am.

23   Q.   And could you please turn to that, please?

24   A.   Okay.

25   Q.   And could you please read into the record the

1   relevant portion of the rule at D(3)(c)?

2   A.   "Describe the methods used to notify and

3   solicit input from potential stakeholders and from the

4   general public in the affected area and present and

5   respond to the public input received."

6   Q.   And just for clarification, Mr. Fulton, I note

7   that at (3) that the provisions you just read is linked

8   to what's required to be in a petition. Is that

9   correct?

10   A.   That's correct.

11   Q.   And, Mr. Fulton, if you could please turn to

12   our NOI -- I apologize, turn to our petition, page six.

13   A.   Okay.

14   Q.   And could you please summarize what the

15   petition states Chino did with respect to the community

16   process?

17   A.   Yes.

18   With respect to the public participation

19   process, it states that Chino implements a public

20   participation process according to a community relations

21   plan under the AOC, which includes community work group

22   meetings, at which NMED and Chino present and discuss

23   activities conducted under the AOC.

24   It goes on to state that the community work

25   group holds regular meetings in Bayard or Hurley, New

1 Mexico, and is composed of various interested public

2 stakeholders.

3   And further it states that Chino provided

4 public notice of the September 16th, 2014, community

5 work group meeting in the local newspaper of record, and

6 that meeting is when the results of the site-specific

7 copper criteria were presented.

8   Q.   Mr. Fulton, does the petition also include

9 reference to an internet website that Chino hosts?

10   A.   Yes.

11   Q.   Could you please describe that?

12   A.   So the study report was posted on a website

13 that the community work group had access and -- had

14 access to and notification of.

15   Q.   I also note, Mr. Fulton, that it indicates you

16 -- that the petition indicates you were actually present

17 at the September 16th, 2014, CWG meeting. Is that

18 correct?

19   A.   That's correct.

20   Q.   And so would it be correct to say that you

21 have personal knowledge of questions received from the

22 public at that meeting, the public members who attended

23 the meeting, and obviously the responses you might have

24 given to those comments?

25   A.   Yes.

1   Q.   Mr. Fulton, if you could please turn now to

2   Dr. Dail's rebuttal on page 45?

3   And for reference for the record, that's

4   pleading log 34, Rebuttal Exhibit 14.

5   A.   Okay.

6   Q.   Could you please summarize Dr. Dail's rebuttal

7   response with respect to the objection lodged by Amigos

8   Bravos?

9   A.   So, in summary, it does not appear that

10   Dr. Dail of the New Mexico Environment Department has

11   the same concerns as raised by Amigos Bravos because,

12   let's see, on page 45, it states that "Chino Mines has

13   clearly taken steps to notify and solicit input from

14   potential stakeholders and the general public in the

15   affected area."

16   It goes on to recommend, however, that Chino

17   Mines provide additional details regarding the specifics

18   of the presentation in the responses to comments

19   received.

20   Q.   Thank you, Mr. Fulton.

21   MS. CHAPPELLE: And, Hearing Examiner, at this

22   point the next portion of this would really be

23   surrebuttal in response to that, so we'd need a little

24   bit of direction if you would like us to proceed to

25   provide additional information in that regard.

1   MR. CHAVEZ: Can you please kind of, as you

2   did in the beginning, restate your intentions, and then

3   I'll go to the other parties on this. But if you can

4   just kind of go over them again.

5   MS. CHAPPELLE: Okay. So in response to

6   objections lodged by Amigos Bravos and the

7   recommendation in NMED's rebuttal that Chino provide

8   additional information about its community stakeholder

9   process, we would like to do so now as surrebuttal,

10   essentially.

11   With that, we do have copies of notices and

12   minutes prepared by the CWG that we can offer as

13   additional evidence if that is desired by the

14   Commission.

15   We would note that those documents have been

16   shared with both Amigos Bravos and NMED.

17   MR. CHAVEZ: Okay. I'm inclined to allow you

18   to proceed, but I want to go to the other parties for

19   any objection or comment on this issue.

20   Let's start in the back with Amigos Bravos.

21   MR. SCHLENKER-GOODRICH: Yeah, I think it's

22   appropriate for -- Amigos Bravos does not have a

23   specific objection to Chino Mines providing this

24   information.

25   In all the prior Commission hearings that I've

1 been involved in, it has been almost routine for parties

2 to provide additional information where a perceived

3 deficiency was identified in materials or where some

4 clarification could be provided based on existing

5 proposals and existing testimony in the record.

6   The concern, however -- I do have a general

7 concern, however, that I identified yesterday, which is

8 what is good for the goose is good for the gander, in

9 the sense that there was objections raised to Amigos

10 Bravos providing information and new exhibits that I

11 think is frankly very similar to what Chino Mines is

12 trying to do today.

13   So to the degree that Chino Mines' information

14 is allowed into the record, and I would encourage the

15 Commission to allow that, I would also encourage the

16 Commission to allow Amigos Bravos' materials in there,

17 with the caveat that we will be presenting testimony

18 that introduces those exhibits and the basis for those

19 exhibits tomorrow.

20   So the fundamental issue here is one of

21 fairness and equity to ensure that the rules are fairly

22 applied.

23   The only other thing that I would note is

24 there is no expressed prohibition against the

25 introduction of additional materials at the hearing, and

1   that the Commission, in fact, under the Water Quality

2   Act, is encouraged to take consideration of all

3   evidence, but has an ability to give that evidence the

4   weight it deems it needs to be.

5   So, of course, evidence that is provided in

6   the course of a Commission hearing may be given,

7   frankly, less weight than evidence that has been

8   provided before the inception of the hearing, because

9   the parties have an ability to review that, but that

10   doesn't obviate or preclude the introduction of those

11   materials.

12   So with that, we do not have a specific

13   objection, but we do have a general concern about the

14   fair and equitable application of rules regarding new

15   evidence introduced during Commission proceedings.

16   MR. CHAVEZ: Thank you.

17   NMED.

18   MR. VERHEUL: NMED doesn't have any objection

19   to the introduction of materials from Freeport-McMoRan

20   in this matter, and as a general statement, we believe

21   that there is a distinction between -- between the

22   materials that are being introduced by Freeport-McMoRan

23   at this time and the materials that were attempted to be

24   introduced by Amigos Bravos yesterday, and we can get

25   into more specifics on those as each of those come up.

1   I'd also like to note that NMED did not have a

2   perceived deficiency in the record that had to be

3   addressed by the materials that Amigos Bravos attempted

4   to provide yesterday.

5   MR. CHAVEZ: Thank you.

6   San Juan.

7   MS. McCALEB: San Juan Water Commission has no

8   objection.

9   MR. CHAVEZ: Thank you.

10   Chevron.

11   MR. ROSE: Chevron has no objections.

12   MR. CHAVEZ: I'm going to allow you to

13   proceed.

14   MS. CHAPPELLE: Thank you, Hearing Examiner

15   Chavez.

16   With that, Mr. Fulton, if you would please --

17   actually, what I'd like to do real quick --

18   Mr. Parkhomenko, if you could start passing out these

19   exhibits right here.

20   Right now, Hearing Examiner Chavez, these are

21   unmarked, but we will go back and designate depending on

22   your -- or would you like me to go ahead and just

23   designate them now?

24   MR. CHAVEZ: Well, I think you were going to

25   do that at the conclusion.

1   MS. CHAPPELLE: That's right.

2   Q.   (BY MS. CHAPPELLE) So the first document,

3 Mr. Fulton, that I'd like you to turn your attention to

4 has to do with notice of the September 16th, 2014, CWG

5 meeting.

6   Please, could you please turn to that?

7   A.   Yes.

8   Q.   And if you wouldn't mind just describing what

9 is in front of you for the Commission and the parties.

10   A.   So it appears there is two versions of a

11 notice posted in the Silver City Daily Press, published

12 on Tuesday, September 2nd, 2014, based on the bylines

13 published at the top of the newspaper article.

14   There is a posting -- or the posting describes

15 the Chino administrative order on consent, the work

16 group meeting announcement, and specifically states when

17 the next community work group meeting will be held,

18 which was on Tuesday, September 16th, 2014, the time and

19 the location, and as part of the agenda, it states

20 "Presentation of the Development of the Site Specific

21 Copper Criteria for Drainages within the Smelter/

22 Tailings Soil Investigation Unit."

23   Q.   Thank you.

24   And by two different versions, what are those

25 two different versions?

1   A.   Apologies.

2   A version published in Spanish and a version

3   published in English.

4   Q.   And in that packet, I note there is another

5   notice.

6   Could you please describe that one?

7   A.   Sure.

8   So a separate notice was published on Monday,

9   September 15th, 2014, in the Silver City Daily Press.

10   There are two postings, one in Spanish and one in

11   English. The postings appear to be identical to the one

12   posted on September 2nd, in that it states that the --

13   you know, the time, the location of the next community

14   work group meeting, a description of what the community

15   work group meetings are, and then within the agenda, it

16   notes that there will be a presentation of the

17   development of site-specific copper criteria for

18   drainages within the Smelter/Tailings Soil Investigation

19   Unit.

20   Q.   Thank you, Mr. Fulton.

21   Moving now to the September, 2014, CWG meeting

22   minutes, could you please describe that document?

23   A.   Yes.

24   So this document provides a list of the

25   members of the community work group that were present,

1 other folks that were present, as well as guests that

2 were present.

3   It provides minutes pertaining to the

4 discussion of the meeting -- the community work group

5 meeting held on September 16th, 2014.

6   It notes that myself presented a presentation

7 on the site-specific copper criteria of the STSIU area.

8 And then it lists the questions asked by the community

9 work group members.

10   It also provides to the community work group

11 members a link to the underlying study report.

12   Q.   On Chino's web page, is that correct,

13 Mr. Fulton?

14   A.   On Chino's web page, correct.

15   Q.   Now, having been at this meeting, Mr. Fulton,

16 and having reviewed these minutes, do these minutes

17 appear to be a fair characterization of that meeting?

18   A.   Yes.

19   Q.   And to your knowledge, have -- do you have any

20 reason to believe that these minutes were not prepared

21 in the ordinary course of business by the CWG work

22 group?

23   A.   No, I do not.

24   Q.   With respect to the community work group,

25 Mr. Fulton, do you know whether that's something that

1　was formed just for this effort or has it been in

2　existence prior to this effort?

3　　　A.　So to my knowledge, the community work group

4　has been in existence shortly after the Chino

5　administrative order on consent was established sometime

6　in the mid-1990s.

7　　　　　And as I am aware, they have regular work

8　group meetings to discuss ongoing activities being

9　conducted under the Chino AOC.

10　　　Q.　Thank you, Mr. Fulton.

11　　　　　Could you please also describe the listing

12　of CWG members and other others present at that meeting?

13　　　A.　Sure.

14　　　　　There were a total of 14 people present at the

15　meeting.　Of those 14 people, 10 appear to be community

16　work group members.　There was one representative from

17　Chino AOC, there was one representative from NMED, and

18　there were two guests, including myself, where the other

19　guest was from WNMU, which I believe is Western New

20　Mexico University.

21　　　Q.　Thank you, Mr. Fulton.

22　　　　　I note on the listing of these minutes that

23　others were listed as absent, and I note that there

24　appears to be a name for an EPA staff member.　Is that

25　correct?

1   A.   Correct.

2   Q.   To your knowledge, and obviously with respect

3   to the public notice, are other members of the public

4   invited to attend this meeting?

5   A.   Yes.

6   I am aware that anybody that is interested in

7   attending and participating in the community work group

8   meetings are welcome to join.

9   Q.   So I note that potentially going over the

10   questions listed in this may be a little bit repetitive

11   of the information the Commission is going to receive

12   here in a few minutes from Dr. Meyer, Mr. Fulton, could

13   you just please give us some generalities about the

14   questions asked and the number of questions?

15   A.   Sure.

16   So with respect to the number of questions, it

17   looks like there is eight questions total that were

18   logged in the meeting minutes, and a general description

19   of those questions I can provide, and that would be, you

20   know, pertaining to where the samples were collected

21   from that were used to develop the study to the types of

22   chemical parameters that affect toxicity testing

23   results, and whether samples were selected from pool

24   habitats, and I guess -- you know, that's just a

25   sampling of those questions.

1   I'm not sure if you want me to go into detail

2   or read each one.

3   MS. CHAPPELLE: So Hearing Examiner Chavez, we

4   would kind of offer that up.

5   We don't know that it's necessary potentially

6   to read them all into the record, especially if

7   ultimately this document is admitted into the record,

8   but we are happy to do that.

9   We just wanted to make sure we were sensitive

10   to time.

11   MR. CHAVEZ: I don't think there is any need

12   to read them into the record.

13   MS. CHAPPELLE: Thank you, Mr. Fulton.

14   Q.   (BY MS. CHAPPELLE) If you could please turn

15   now to the next set of minutes, and this is just to give

16   background with respect, Mr. Fulton, to the timeline

17   that I know is still up on the screen with regard to

18   when public participation began.

19   Could you please identify that document,

20   please?

21   A.   The 9/17/2013 meeting minutes?

22   Q.   Yes.

23   A.   Sure.

24   MR. SCHLENKER-GOODRICH: I'm sorry, a

25   clarification of what you're referring to.

1   MS. CHAPPELLE: It's being passed out right

2   now. It's the -- I apologize, Mr. Schlenker-Goodrich,

3   it's the additional historic minutes that you and I

4   discussed yesterday.

5   MR. CHAVEZ: And let's go ahead and make

6   sure --

7   MR. SCHLENKER-GOODRICH: I'll look at the

8   document.

9   MR. CHAVEZ: -- that you have a copy of the

10   document in front of you.

11   MR. SCHLENKER-GOODRICH: Not yet.

12   MS. CHAPPELLE: Shall we move forward or just

13   wait?

14   MR. CHAVEZ: I want to get him a copy.

15   MS. CHAPPELLE: Could you give him a copy in

16   the back?

17   MR. CHAVEZ: Does Amigos Bravos have an

18   objection to this?

19   MR. SCHLENKER-GOODRICH: I will stand on my

20   prior no specific objection but general objection.

21   MR. CHAVEZ: The goose and the gander?

22   MR. SCHLENKER-GOODRICH: The only thing that I

23   would add -- what's that?

24   MR. CHAVEZ: The goose and the gander?

25   MR. SCHLENKER-GOODRICH: The goose and the

1 gander objection.

2   The only other thing I would add is that

3 counsel for Chino Mines did provide on Friday some of

4 the minutes, and specifically the September 16th

5 minutes, but I was not provided with the minutes for

6 September 17th, 2013, or May 20th, 2014. This is the

7 first time I've seen these minutes.

8   MR. CHAVEZ: Okay.

9   MR. SCHLENKER-GOODRICH: So I would bring an

10 objection on the timeliness of this and not being able

11 to have any opportunity to really review it.

12   MS. CHAPPELLE: Just to clarify, Your Honor,

13 we did have a discussion about that yesterday, so I did

14 alert him that we did find additional minutes and that I

15 would provide them today.

16   Q.   (BY MS. CHAPPELLE) Moving on, Mr. Fulton,

17 could you please --

18   MR. SCHLENKER-GOODRICH: I would only object

19 to the extent that I don't remember that specific

20 element of the conversation.

21   MR. CHAVEZ: I'm going to allow you to

22 proceed.

23   MS. CHAPPELLE: Thank you.

24   Q.   (BY MS. CHAPPELLE) Mr. Fulton, could you

25 please describe the minute meetings for September 17th,

1   2013?

2   A.   Sure.

3   I mean, I'm going to presume that you want

4   me to describe the section that deals with the

5   site-specific criteria study?

6   Q.   Sure, Mr. Fulton.

7   But just generally the meeting -- the folks

8   present and pertinent information regarding the topic

9   today.

10   A.   Sure.

11   A number of community work group members were

12   present. It appears there was seven members present.

13   Other folks were present from Western New Mexico

14   University, New Mexico Environment Department, including

15   two folks, and then two folks from Chino Mines AOC. It

16   looks like there were a handful -- five -- five people

17   absent from that meeting.

18   Q.   Thank you, Mr. Fulton.

19   Just moving on to the highlighted portion that

20   describes -- of these minutes that describes the

21   pertinent topic today.

22   A.   Sure.

23   I guess an overall summary of the highlighted

24   area would be that it -- in terms of the meeting

25   minutes, it describes as one of the ongoing initiatives

1 for the Chino Mines AOC was the site-specific criteria

2 study, and then goes on to kind of characterize recent

3 correspondence between Chino and the Surface Water

4 Quality Bureau.

5   It notes that those correspondences were

6 placed in the repository of that library. It also

7 states that Chino is reviewing and revising the study

8 reports and that the Surface Water Quality Bureau

9 correspondence is on their website, not on the AOC

10 repository, and have incorporated those into the AOC

11 repository.

12   Q.   Does it also indicate that those documents are

13 available on-line to the general public?

14   A.   Yes.

15   Q.   And does it reference the triennial review

16 process and give guidance as to how the public could

17 participate in the process?

18   A.   Yes. It gives a description of the triennial

19 review process, as you asked.

20   Q.   Thank you, Mr. Fulton.

21   Turning now to the final exhibit, and this is

22 dated May 20th, 2014, could you just provide, please, a

23 general description of that document?

24   A.   Sure.

25   I would say, in general format, it's the

1 document that -- the format of the document is

2 consistent with the other meeting minutes, in that it

3 describes a list of people that were present and absent.

4 For certain people, it notes their associations; for

5 example, it notes that someone from EPA was present,

6 folks from New Mexico Environment Division were present,

7 as well as from Chino AOC. It looks like there is a

8 brief summary of AOC documents.

9   And then prior getting into, it looks like,

10 any IU-specific updates, it looks like updates were

11 provided relative to the site-specific copper toxicity

12 model report and notes that Chino will be presenting a

13 site-specific copper toxicity model report before the

14 triennial review of the Water Quality Control

15 Commission.

16   And at that point it says that that

17 presentation would be that year, which was in 2014.

18 That may be an oversight, or it may be because we were

19 not sure as to when the triennial review would be

20 scheduled at that point in time.

21   Q.   Thank you.

22   MR. SCHLENKER-GOODRICH: For clarification,

23 what document are we referring to?

24   MS. CHAPPELLE: This is the May 20th, 2014,

25 minutes that were just passed out to you.

1   MR. SCHLENKER-GOODRICH: Thank you.

2   MR. CHAVEZ: And, Ms. Chappelle, if I may stop

3   you right there.

4   MS. CHAPPELLE: Yes.

5   MR. CHAVEZ: It's 2:15. I want to just take a

6   five-minute break and come back. I'm sorry, it's in the

7   middle of your examination.

8   MS. CHAPPELLE: Oh, no. It's absolutely fine.

9   It's actually perfect.

10   MR. CHAVEZ: Okay. If we could just take a

11   five-minute break, a recess.

12   (Recess held from 2:20 to 2:25 PM.)

13   MR. CHAVEZ: Let's go ahead and go back on the

14   record.

15   Freeport, you may proceed.

16   MS. CHAPPELLE: Thank you, Hearing Examiner

17   and Commission Members and parties.

18   Q.   (BY MS. CHAPPELLE) Just to kind of quickly

19   complete this portion of testimony, Mr. Fulton, you were

20   describing the May 20th, 2014, minutes.

21   Just one more quick question with respect to

22   those, and we will wrap up this portion of our

23   testimony.

24   Mr. Fulton, does this -- do these minutes

25   also provide further language about the community

1 involvement process and how folks might obtain relevant

2 documents?

3   A.   Yes, it does.

4   It includes a subsection of the minutes that

5 describes the new AOC repository web page and that it

6 can be accessed on-line.

7   Q.   Perfect.

8   A.   It goes on to describe, you know, that

9 computers are locally available, if needed.

10   Q.   So thank you, Mr. Fulton.

11   I just wanted to make sure that the record

12 reflected the kind of conformity of information for

13 community stakeholders in that process.

14   With that, Mr. Fulton, I have one final

15 question on this point.

16   Obviously, you're not an expert in the rule,

17 so I'm asking this more from a lay perspective.

18   Based on your understanding of the rule, your

19 participation in the CWG and your review of these

20 documents, do you agree with Dr. Dail's testimony in his

21 rebuttal that Freeport -- Freeport's community

22 involvement process meets the rule?

23   A.   Yes. Considering all of this information, I

24 would say that Freeport satisfied this public

25 participation requirement.

1   Q.   Thank you, Mr. Fulton.

2   Moving now to wrapping up your portion of

3 testimony, Mr. Fulton, I noted in Dr. Dail's rebuttal

4 there were some concerns from a technical standpoint on

5 page 42, pleading log number 34, Rebuttal Exhibit 14.

6   Could you just very, very briefly summarize

7 those and at the same time describe how Freeport and

8 NMED resolved those concerns?

9   A.   Sure.

10   I think the primary concerns raised in

11 Dr. Dail's testimony pertain to the general variability

12 in water chemistry observed across the STSIU site, as

13 well as the geographic extent to which the site-specific

14 criteria would apply, if adopted by the Commission.

15   Q.   Thank you.

16   And how did Freeport and NMED work to resolve

17 those issues?

18   A.   Subsequent communications between Chino Mines

19 and Arcadis and NMED resolved those concerns by

20 providing additional information in reference to

21 existing information.

22   Q.   Now, I noted in your testimony, Mr. Fulton,

23 that as part of your answer you kind of gestured to

24 yourself.

25   Just for clarification, were you present, and

1 did you participate in those conversations?

2   A.   Yes, I was present and participated on those

3 follow-up communications, which included a

4 teleconference.

5   MS. CHAPPELLE: Thank you, Mr. Fulton.

6   With that, I would like to turn to Dr. Meyer.

7   JOSEPH S. MEYER

8   after having been first duly sworn or affirmed,

9   was examined and testified as follows:

10   DIRECT EXAMINATION

11 BY MS. CHAPPELLE:

12   Q.   Good afternoon, Dr. Meyer.

13   A.   Good afternoon.

14   Q.   Thank you for being here.

15   First, what I'd like to do is qualify you as

16 an expert, Dr. Meyer. So could you please state your

17 name, occupation and where you're employed?

18   A.   My name is Joseph Snyder Meyer, M-e-y-e-r.

19 I'm an environmental scientist with Arcadis in Lakewood,

20 Colorado.

21   Q.   Dr. Meyer, because the air just went on, I

22 think you might want to either get closer to the mic or

23 speak up just a bit.

24   Moving forward, could you please summarize

25 your education, experience and qualifications as it

1 relates to your testimony here today?

2   A.   I have a bachelor of science degree in

3 chemical engineering from Lehigh University and a PhD in

4 zoology from the University of Wyoming.

5   Before working with Arcadis, I was a professor

6 in the Zoology Department at the University of Wyoming

7 from 1994 to 2006, and I taught courses in biology,

8 ecology, water quality, limnology, which is the study of

9 the inland lakes and rivers and streams and ponds, and I

10 taught risk assessment classes.

11   Since coming to Arcadis, I've been involved in

12 projects related to the cleanup of metals sites,

13 metals-related sites.

14   I'm an expert in the field of the

15 bioavailability and toxicity of metals to aquatic

16 organisms and terrestrial organisms.

17   I have over 60 peer-reviewed scientific

18 publications related to metals toxicology, and over 30

19 of those are related to the effects and the distribution

20 of copper in aquatic environments.

21   Before being a professor at the University of

22 Wyoming, I was a lecturer in the Fisheries Department at

23 Humboldt State University.

24   I did postdoctoral research with the

25 University of Wyoming, as well as at the Swiss Federal

1 Institute of Water Resources in Katanienbaum,

2 Switzerland.

3   Q.   Thank you, Dr. Meyer.

4   Mr. Fulton, if you could just pass over the

5 notebook so he can look at page three of the NOI.

6   A.   Yes.

7   Q.   Dr. Meyer, if you could please turn to Exhibit

8 D of that document.

9   A.   Yes.

10   Q.   Could you please briefly identify this

11 document?

12   A.   This is my resume.

13   Q.   Do you have any changes to make to this

14 document?

15   A.   No.

16   Q.   Do you believe this document represents your

17 background and expertise?

18   A.   Yes. As of the date that it was written,

19 correct.

20   Q.   To today?

21   A.   To -- to today, I have more publications than

22 are listed here, but otherwise it is correct.

23   Q.   Thank you.

24   And with that, you would recommend adoption as

25 an exhibit by this Commission?

1   A.   Yes.

2   Q.   Moving on, Dr. Meyer, to Exhibit E, could you

3   please identify that document?

4   A.   This is my written testimony regarding this

5   issue.

6   Q.   And do you have any changes to make to this

7   document?

8   A.   No.

9   Q.   And was this document prepared by you or under

10   your direction?

11   A.   It was prepared by me.

12   Q.   And do you validate this document as of the

13   date you wrote it?

14   A.   Yes.

15   Q.   And would you recommend its adoption by this

16   Commission?

17   A.   Yes.

18   Q.   Thank you.

19   With that, I'd like to turn to the rest of our

20   presentation.

21   A.   The process by which the site-specific

22   criteria for the Chino Mines STSIU were developed was

23   iterative and stepwise, with review and comment from the

24   Surface Water Quality Bureau of NMED.

25   Water samples were selected from the STSIU

1   drainages in August and September of 2011. We conducted

2   chemistry analyses and copper toxicity tests in those

3   waters and in laboratory waters, according to the US EPA

4   guidance.

5   We calculated water effect ratios, which I

6   will refer to, and you will see it in these slides, as

7   W-E-R or WERs. And those were calculated from the

8   toxicity results, again according to US EPA guidance.

9   From those results, we developed a multiple

10 regression model to predict the site-specific toxicity

11 of copper across a range of water chemistries that are

12 found in the STSIU waters. And we're proposing that

13 regression model to calculate the site-specific criteria

14 for the STSIU waters.

15   These site-specific criteria rely on a basis

16 of metal bioavailability. Now, bioavailability refers

17 to the proportion of metal that is available for an

18 organism to accumulate -- take up from its surroundings.

19   Copper bioavailability depends not only on

20 water hardness but on a variety of other water chemistry

21 parameters. The bioavailability decreases when metals

22 bind to particles or solids and when metals bind to

23 dissolved substances.

24   Now, just as an example of one of those

25 dissolved substances, if you take a walk out in the

1 woods and you pass a little pond of water with leaves in

2 it, you'll probably see tea-stained water -- tea-stained

3 colored water like this.

4   Can everybody see what I'm referring to?

5   That comes from the decomposition -- partial

6 decomposition/degradation of the leaves, the organic

7 matter, that are in the water.

8   That dissolved organic carbon binds with

9 copper and makes the copper less available so it cannot

10 be taken up by the organisms. That's what I mean by

11 bioavailability.

12   In contrast, this clear water is like the

13 water that's used in laboratory toxicity tests. It does

14 not contain all of those chemical compounds that can

15 help to decrease the bioavailability of the water -- or,

16 pardon me, the bioavailability of the copper in the

17 water.

18   Now, bioavailability can be incorporated into

19 site-specific assessments, and toxicity tests are

20 usually used to evaluate metal bioavailability. As the

21 bioavailability decreases, the toxicity, the biological

22 effect of the copper, also decreases.

23   Therefore, site-specific criteria can

24 scientifically justifiably be increased when water

25 chemistry decreases the metal bioavailability.

1   And very importantly, the site-specific

2   criterion, when derived according to the process we used

3   for this study, does not change the intended level of

4   protection of aquatic life at the site, according to the

5   US EPA Water Quality Standards Handbook.

6   Now, I can perhaps give you an idea of what we

7   mean by the chemical protection in the water and the

8   bioavailability decrease that it affords with this

9   diagram.

10   This represents something called the biotic

11 ligand model for copper and other metals that I helped

12 to develop over a decade ago. And in this model, this

13 blue shape that looks sort of like Pac-Man, if you will,

14 for those of you who might remember the old Pac-Man

15 games, that blue shape encompasses these chemical

16 parameters that decrease the bioavailability and the

17 toxicity of the copper to the organisms.

18   The dissolved organic carbon and the

19 alkalinity that are in the regression equation for these

20 site-specific criteria are circled here by the green

21 ellipsis; and they help, along with some of the other

22 water chemistry parameters, to, if you will, have

23 Pac-Man chew up some of the copper and make less of it

24 available to the organism.

25   And as I've shown here circled in the red

1 ellipse, it's the amount of metal that binds to the

2 organism that determines the biological effect.

3   So the more of these protective water

4 chemistry parameters chewing up some of the copper, the

5 less copper gets on the organism and the less biological

6 effect. That is the basis for the site-specific water

7 quality criteria that we're recommending or petitioning

8 here.

9   Now, the current water quality criteria for

10 copper in New Mexico are based on only the hardness of

11 the water and no other water chemistry parameters. I'll

12 refer to these as the default hardness-based copper

13 criteria.

14   As hardness increases on the horizontal axis

15 in this graph to the right, as you go up the red or the

16 blue line, the copper water quality criteria increases,

17 more copper is allowed in the water, according to the

18 current water quality criteria, because the hardness

19 helps to protect against the bioavailability and

20 toxicity of the copper to the organisms.

21   So this demonstrates a protective effect of

22 hardness on copper bioavailability and toxicity.

23   But the toxicity database used to generate the

24 current hardness-based criteria is derived in part from

25 toxicity tests that were conducted in synthetic

1   laboratory waters. And what I mean by "synthetic

2   laboratory waters" is that deionized water just has some

3   commercial salts added to it to give you a generic

4   representation of what a given water chemistry might be

5   out in the real world, but it does not cover all of the

6   water chemistry conditions possible.

7   So US EPA allows for site-specific water

8   quality criteria to be derived to account for these

9   other water chemistry parameters and other biological

10   conditions out at actual sites in the real world.

11   Four different methods are allowed by the US

12   EPA, and those same four methods are also what you

13   incorporated into the Administrative Code of New Mexico

14   in the previous triennial review.

15   One of those is the biotic ligand model that I

16   showed you on that fish slide earlier, and that's a

17   computer model based on the water chemistry parameters

18   that are measured.

19   But a more direct measure of the effect of

20   these water chemistry parameters on protecting against

21   copper toxicity is something called the water effect

22   ratio procedure, because it is directly based on results

23   of toxicity tests conducted with waters collected from

24   the site of interest, and that's why we call it the

25   site-specific water quality criteria.

1   Now, just to refresh for you, the STSIU site

2   has mountainous terrain, especially up here in the

3   northeastern quadrant, has numerous small and ephemeral

4   drainages that mainly have flashy flow in response to

5   monsoonal moisture during the July to September

6   traditional monsoonal season down here, and there are

7   some isolated bedrock pools, and we have the historic

8   operation of the smelter shown by this yellow star just

9   to the east of Hurley from 1939 to 2000 and diffuse

10   wind-blown distribution of copper across the STSIU site.

11   For this study, we divided the entire site

12   into nine sub-watersheds that are listed up here with

13   these different watershed names, and they gave us a wide

14   range of water chemistry, everything from low water

15   hardness to high water hardness, low alkalinity to high

16   alkalinity, and low dissolved organic carbon to high

17   dissolved organic carbon concentrations.

18   The objective of this water effect ratio study

19   was to develop site-specific copper criteria for the

20   STSIU surface waters based on the bioavailability of

21   copper.

22   We had 12 sampling locations that were mostly

23   ephemeral flow in the drainages. Those 12 sites are

24   shown here as the red circles. Notice that they are up

25   in the northeastern quadrant of the site, because we

1   never could locate water flowing down in the lower

2   elevation sites down here in the southern portion.

3   So we collected water where we could find it

4   during the monsoonal season, which attests to the flashy

5   nature of the flow within the STSIU area.

6   We had two rounds of sampling. In the first

7   sample round, we collected water from all 12 sites. In

8   the second round, later in the monsoonal period, we

9   collected water from six of those sites, a subset of the

10 12. And those samples were split for analytical

11 chemistry, and that's part of the water went to an

12 analytical chemistry lab and the other portion of the

13 water was sent to a toxicity testing laboratory, and we

14 then could take the results from the analytical

15 chemistry and the toxicity tests to link them together

16 to derive a toxicity prediction equation that could be

17 used for any time of the year with any water chemistry

18 that you would find in the STSIU, and not limit it to

19 just when we had collected water samples during those

20 weeks we were there.

21   Now, the water effect ratio procedure is

22 relatively simple in concept. You just conduct toxicity

23 tests in site water and in hardness-matched laboratory

24 water, the clear water here. By "hardness-matched

25 water," I mean the laboratory water has enough calcium

1   and magnesium added to it to match the hardness of the

2   site water, but it does not have the dissolved organic

3   matter or the alkalinity and other water chemistry

4   parameters matched.

5   So that is the difference between the two, and

6   it's very important, because I can add a given amount of

7   copper to this laboratory water and kill all the fish in

8   it, and the same amount of copper added to this site

9   water with dissolved organic carbon and higher

10 alkalinity in it will not kill any fish. That's the

11 important concept you're testing with a water effect

12 ratio.

13   So we add copper to the site and the

14 laboratory waters, and we expose two different species,

15 an aquatic invertebrate and a fish, that are considered

16 by US EPA to be representative of the sensitivity of

17 organisms that you would have out in the field, such as

18 here at the STSIU.

19   We then, based on the toxicity results,

20 calculate a parameter called the EC50, the 50 percent

21 effects concentration or median effects concentration,

22 and that's the concentration of copper that is required

23 to kill 50 percent of the organisms. And you calculate

24 that in both the lab and the site waters.

25   Now, the criteria are not set to have

1 50 percent of the organisms die out in the real world;

2 the criteria are set at protective concentrations that

3 will not cause lethality or mortalities like we have in

4 the toxicity tests. But the results are used here to

5 calculate the adjustment factor to account for the

6 protection in the site waters.

7   Now, these tests are conducted side by side at

8 the same time under exactly the same laboratory

9 conditions, so the only difference between them is the

10 different water chemistry in the site versus the

11 laboratory water.

12   And any differences in toxicity can then be

13 attributed to the non-hardness chemistry differences

14 between the site and the lab water.

15   And then the water effect ratio is simply the

16 EC50 in the site water divided by the EC50 in the lab

17 water. If that water effect ratio is greater than one,

18 it demonstrates that there is a protective effect of

19 those additional water chemistry parameters in the site

20 water and, therefore, you can scientifically justify

21 increasing the criteria and allowing more copper in

22 those waters.

23   So the site-specific criterion is just the

24 default hardness-based criterion, multiplied by this

25 adjustment factor, the water effect ratio, and that

1   gives you the site-specific criterion.

2   The results of our water effect ratio studies

3   can be summarized in this slide.

4   The horizontal axis shows all of the different

5   water samples that were collected during those two

6   sampling periods. The samples with a prefix of one in

7   the sample code represent the first round of sampling,

8   and those with a two as the prefix represent the second

9   round of sampling.

10   The vertical axis is the EC50, or the

11   concentration of copper that was required to cause

12   50 percent mortality. In this case, in the Daphnia

13   magna, the invertebrate which was more sensitive than

14   the fish. So I'm showing you the most sensitive results

15   here.

16   As you increase along this vertical axis, the

17   toxicity decreases because more copper is required to

18   cause 50 percent mortality. So, therefore, there is a

19   protective effect higher on this axis and, therefore,

20   the toxicity of the copper is less in these waters.

21   The orange circles represent the laboratory

22   water toxicity tests, and you'll see that relatively low

23   concentrations of copper were required to cause

24   50 percent mortality. So copper was quite toxic in

25   these laboratory waters. But in the black circles,

1 which represent the site waters, it took much more

2 copper to cause the same biological effect,

3 demonstrating the protective effect of those additional

4 water chemistry parameters.

5   In all cases, the black circles are above the

6 corresponding orange circle, showing that our water

7 effect ratio was greater than one. There was a

8 protective effect there.

9   The difference between the orange and the

10 black circle represents the magnitude of the water

11 effect ratio. In some cases, we only had a relatively

12 small water effect ratio, like at this site, but over

13 here we had a very large water effect ratio, showing

14 that there is a difference between the different waters

15 in the STSIU depending on the water chemistry of that

16 specific drainage.

17   This is an excellent example of why

18 site-specific criteria for copper can be justified.

19   Now, very interestingly, if you look at the

20 predictive nature of hardness, which is what the default

21 criteria for copper are based on, with hardness plotted

22 in the horizontal axis, you'll see that there is a low

23 predictability of copper toxicity from hardness alone.

24   At this hardness right here, we have a 12-fold

25 difference in toxicity -- a 12-fold difference in the

1   EC50 of copper to the Daphnia magna at a given hardness.

2   That's a wide range of difference in toxicity.

3   And you'll see that this R squared value of .1

4   tells us that only ten percent of the variation in the

5   toxicity to Daphnia magna for copper was accounted for

6   by the water hardness, as illustrated by this wide

7   dispersion of the data points far away from the central

8   regression line.

9   Now, if we go to alkalinity of the water as a

10 predictor of toxicity, we have a big jump in the

11 predictability. Alkalinity accounts for 43 percent of

12 the variation in the toxicity of the copper in the

13 water, much better than the water hardness does, and you

14 see that those points are now clustering closer to the

15 central regression line.

16   And then if we go to dissolved organic carbon,

17 we jump to even better predictability. We now account

18 for 75 percent of the variation in the copper toxicity.

19 Those points are now closer to the central regression

20 line.

21   And, in fact, when we combine both dissolved

22 organic carbon concentration and alkalinity into a

23 multiple regression equation, we can now predict

24 85 percent of the variation in copper toxicity.

25   This is a very strong predictor of the

1   toxicity of copper to the Daphnia magna, and frankly,

2   for water samples collected from the field, it doesn't

3   get much better than this. That's very strong.

4   You'd be happy with laboratory toxicity

5   results -- laboratory water toxicity results with that

6   high of an R squared.

7   So very simply, the water effect ratio is the

8   site water EC50 divided by the lab water EC50. The site

9   water EC50 that we're proposing in the petition is a

10   regression-predicted EC50 equation based on DOC

11   concentration and alkalinity. The lab water EC50 is

12   something called the species mean acute value that is

13   recommended in the US EPA 2001 Handbook for Water Effect

14   Ratio Determinations for Copper. And the

15   regression-predicted equation in the numerator up there

16   is just shown right here. It's that simple for

17   determining the site-specific water quality criteria.

18   Q.   Dr. Meyer --

19   A.   Yes.

20   Q.   -- just as a pause, the previous formula you

21   showed, is that also included in Exhibit I?

22   A.   Yes. This is in the formula that is in

23   Exhibit I that we are requesting to be included in the

24   Administrative Code.

25   Thank you for that clarification.

1   So the site-specific criteria are just the

2   default hardness-based criteria at the hardness of the

3   water sample that is collected times the water effect

4   ratio that would be calculated by that regression

5   equation I just showed you and that gives you the

6   criterion.

7   The water effect ratio would be applied to

8   both acute and chronic criteria, per the US EPA

9   guidance.

10   The water effect ratio would be applicable in

11   all waters, whether they be perennial, intermittent or

12   ephemeral. And the acute criteria would apply in all

13   waters, the chronic criteria would apply only in

14   perennial and intermittent waters, per the New Mexico

15   Administrative Code.

16   We have included caps or upper limits on the

17   maximum alkalinity and DOC that could be included in the

18   regression equation to safeguard against generating

19   unjustifiably high water effect ratios or adjustments to

20   the criteria. Those caps are shown here.

21   And, additionally, we have proposed no lower

22   limit on alkalinity and DOC concentrations in the

23   regression equations to ensure the needed protection for

24   very dilute waters that have very low alkalinity and DOC

25   concentrations with very little protectiveness in them.

1   And just to help you feel more comfortable

2   with this, there are analogies between the

3   hardness-based and what we're proposing as these water-

4   effect-ratio-based criteria. Both are based on a

5   regression equation, as shown up there. Both can be

6   calculated easily from either one water quality

7   parameter, hardness in the current default criteria, or

8   DOC, dissolved organic carbon, and alkalinity, two water

9   quality parameters in the proposed site-specific water

10   quality criteria equation. Both have regression caps to

11   not extend beyond the range of data that were used to

12   generate the regression.

13   But very importantly, dissolved organic carbon

14   and alkalinity predict copper toxicity in these STSIU

15   waters much better than the water hardness does in the

16   current default criteria.

17   So in conclusion, a regression-based water

18   effect ratio model provides a useful criteria adjustment

19   tool. It accounts for water chemistry and mechanisms of

20   copper toxicity that I referred to back on that fish

21   slide with the biotic ligand model. It provides a more

22   accurate prediction of copper toxicity than the current

23   hardness-based criteria do.

24   Water chemistry plays an important role in

25   copper toxicity by modifying that toxicity in the site

1 waters at STSIU, and the metal speciation concepts that

2 I showed you in the fish slide with the biotic ligand

3 model provide a mechanistic underpinning to explain the

4 toxicity results that we obtained in the STSIU waters.

5 So, in summary, the petition is to designate

6 site-specific criteria for drainages in the Chino Mines

7 STSIU, but it excludes the critical habitat for the

8 Chiricahua Leopard Frog.

9 The site-specific criteria are allowed by US

10 EPA and in the New Mexico Administrative Code.

11 The water effect procedure is allowed in the

12 New Mexico Administrative Code, and it was used to

13 provide the supporting data that I've just shown you.

14 The US EPA water effect ratio guidance was

15 followed in all of this study. And the multiple

16 regression model was fit to the water effect ratio

17 results to develop a predictor equation that's based on

18 alkalinity and dissolved organic carbon concentration,

19 and these default hardness-based criteria are then

20 multiplied by the water effect ratio to calculate

21 site-specific criteria that are intended to protect

22 aquatic organisms in this landscape at STSIU.

23 That concludes my presentation as part of this

24 testimony.

25 Q. Thank you, Dr. Meyer.

1   MS. CHAPPELLE: With that, what I'd like to do

2   is just a little bit of housekeeping.

3   Our presentation is over, so, Mr. Parkhomenko,

4   if you wouldn't mind moving the slide -- the screen up

5   so folks can get more comfortable in their seats.

6   Shall I just keep going on the exhibits?

7   Okay.

8   At this time I would like to move admission of

9   Freeport exhibits, as read into the record by both

10   Dr. Meyer and Mr. Fulton, and those exhibits are

11   Exhibits A through G and I.

12   Additionally, I would like to move into the

13   record the newly introduced exhibits, and those are

14   Exhibit J with respect to the notice, Exhibit K with

15   respect to the 9/14 CWG minutes, Exhibit L with respect

16   to the 9/13 CWG minutes, and Exhibit M with respect to

17   the 5/14 minutes.

18   And with respect to those exhibits, we now

19   stand for questions and cross-examination, Hearing

20   Examiner and Commissioners.

21   MR. CHAVEZ: Thank you.

22   Environment Department, cross-examination.

23   MR. VERHEUL: We have none.

24   MR. CHAVEZ: Thank you.

25   San Juan.

1   MS. McCALEB: No cross-examination.

2   Thank you.

3   MR. CHAVEZ: Thank you.

4   Amigos Bravos.

5   MR. SCHLENKER-GOODRICH: Yes.

6   MR. CHAVEZ: Thank you.

7   MS. CHAPPELLE: Mr. Hearing Examiner, as a

8   quick clarification, would you prefer the presentation

9   we passed out also be moved as an exhibit?

10   MR. CHAVEZ: It's part of the packet, correct?

11   MS. CHAPPELLE: It is not currently part of

12 the packet.

13   MR. CHAVEZ: You should probably do so.

14   MS. CHAPPELLE: Then with that, Mr. Hearing

15 Examiner and Commissioners, I would then move the

16 presentation provided by Mr. Fulton and Dr. Meyer be

17 included in the record as Exhibit M, as in Mary (sic).

18   MR. CHAVEZ: Thank you.

19   You may proceed.

20   CROSS EXAMINATION BY MR. SCHLENKER-GOODRICH

21   MR. SCHLENKER-GOODRICH: Good afternoon.

22   My name is Erik Schlenker-Goodrich. I'm with

23 the Western Environmental Law Center. I'm representing

24 Amigos Bravos.

25   I wanted to extend my appreciation for the

1 solid technical testimony on this. It seems like you

2 guys have done a lot of work on this.

3   All my questions are going to focus not on the

4 technical component but rather on the public engagement

5 elements of how this petition was put together.

6   Chino Mines' written petition, on page six to

7 seven, identifies a community work group meeting that

8 was held on September 16th, 2014. Correct?

9   MR. FULTON: Correct.

10   MR. SCHLENKER-GOODRICH: The minutes for that

11 meeting provided today generally identifies, and I'm

12 looking at -- the page is not numbered, but it's --

13 forgive me, I have the wrong one -- it's toward the end

14 where it identifies questions that were asked during the

15 presentation. It's toward the end, I think the second-

16 from-the-last page.

17   I don't know -- Germaine, do you know -- what

18 exhibit is this -- number is the September 16th, 2014?

19   MS. CHAPPELLE: Yes. I do. That would be --

20   MR. SCHLENKER-GOODRICH: I don't have the

21 numbers that you have for them.

22   MS. CHAPPELLE: That is Exhibit J. I'm sorry,

23 that is -- I'm sorry, I apologize. That is Exhibit K.

24   MR. SCHLENKER-GOODRICH: K.

25   And just for clarification while we're on

1 this, the September 17th minutes, 2013.

2   MS. CHAPPELLE: Exhibit L.

3   MR. SCHLENKER-GOODRICH: L.

4   MS. CHAPPELLE: And the 5/2014 minutes Exhibit

5 M, as in Mary.

6   MR. SCHLENKER-GOODRICH: Okay.

7   So Exhibit K, on the second-to-the-last page,

8 the minutes for that meeting provided today generally

9 identifies eight examples of the questions that were

10 raised at that meeting. Correct?

11   MR. FULTON: Correct.

12   MR. SCHLENKER-GOODRICH: Does it identify all

13 the questions that were raised at that meeting?

14   MR. FULTON: No, it does not.

15   I do recall an additional question. One

16 community work group member in particular, and his name

17 was Nathan Hobbs, was interested in the peer-reviewed

18 publication that we presented today and requested a copy

19 of that, which I provided after the community work group

20 meeting.

21   MR. SCHLENKER-GOODRICH: Thank you.

22   The minutes for that September 16th, 2014,

23 meeting, and again this is Exhibit K, provides notes

24 regarding responses for two of the eight questions. Is

25 that correct?

1   MR. FULTON: Correct.

2   MR. SCHLENKER-GOODRICH: Were those exhaustive

3   responses? Are those summaries of the responses?

4   MR. FULTON: I would describe those as very

5   brief summaries of the responses.

6   As I recall, when those questions were asked,

7   in many instances it became more of a discussion and

8   going back to various slides and maps presented as part

9   of that presentation.

10   MR. SCHLENKER-GOODRICH: Understood.

11   Is there any documentation regarding the

12 responses to the other six questions?

13   MR. FULTON: Not to my knowledge.

14   MR. SCHLENKER-GOODRICH: Turning to the

15 September 17th minutes, Exhibit L, and the highlighted

16 portion that you have or Chino Mines has highlighted on

17 page three of that exhibit, it seems to provide notes

18 regarding -- I'm sorry, it notes that there was a

19 presentation regarding site-specific criteria.

20   Am I characterizing that accurately?

21   MR. FULTON: So I was not at this particular

22 meeting in 2013.

23   I'm skimming over the minutes as I speak, and

24 I guess I'm not seeing a specific reference to a

25 publication, so I can't speak directly as to whether or

1 not there was a formal presentation given to that

2 meeting or a discussion provided to the community

3 workers at that meeting.

4   MR. SCHLENKER-GOODRICH: Understood.

5   Do you have any general sense of how this was

6 brought up at the meeting or what the purpose of this

7 being brought up at the meeting was, how it was

8 structured at all?

9   MR. FULTON: I can probably provide a general

10 sense, based on my participation in the September 17th,

11 '20- -- or pardon me, the meeting in which I presented.

12   MR. SCHLENKER-GOODRICH: Uh-huh.

13   MR. FULTON: In that I know the format of

14 these regular community work group meetings is to

15 provide the community work group members with a general

16 description of ongoing activities or studies that are

17 occurring as part of the Chino Mine AOC.

18   So I would presume that this summary and

19 update as to the site-specific criteria study was

20 probably provided in that general context.

21   MR. SCHLENKER-GOODRICH: So more an update,

22 basically, of how this project was proceeding?

23   MR. FULTON: Correct.

24   MR. SCHLENKER-GOODRICH: Are you aware of

25 whether there was an opportunity for stakeholders or

1 members of the public to ask questions regarding that

2 update?

3   MR. FULTON: I can't speak to that directly

4 because I wasn't there, but based on my experience with

5 the meeting that I did attend, I presume so, given the

6 open format of the discussion of those meetings.

7   MR. SCHLENKER-GOODRICH: Is there any

8 documentation regarding any of that discussion that may

9 have taken place or Chino Mines' responses to that

10 discussion or the questions that were raised?

11   I guess, is there any documentation about that

12 sort of back-and-forth dialogue that may have taken

13 place at the time?

14   MR. FULTON: So as I understand, the meeting

15 minutes are the documentation to the topics discussed

16 during those meetings.

17   MR. SCHLENKER-GOODRICH: So if -- this is the

18 documentation. There is nothing else that would perhaps

19 -- if there was some sort of discussion regarding this

20 update, it would be contained here?

21   MR. FULTON: All of the documentation

22 pertaining to the actual discussion of those community

23 work group meetings, to my knowledge, would be

24 represented in the meeting minutes.

25   MR. SCHLENKER-GOODRICH: In the minutes.

1 Thank you.

2 Regarding the May -- turning now to the last

3 exhibit, Exhibit M, and turning to -- this is on the

4 second-to-last page, and I believe in your oral

5 testimony you were referencing the top paragraph dealing

6 with repositories and about the use of a website or

7 on-line tools.

8 So with that web page -- that web page had

9 files pertaining to the site-specific criteria project.

10 Is that correct?

11 MR. FULTON: So my understanding is that the

12 repository, which is accessible on a web page as

13 described in the meeting minutes that we're discussing

14 now, would include study reports.

15 MR. SCHLENKER-GOODRICH: And was this -- the

16 discussion about this on-line repository web page, is

17 this similar to the prior discussion that we just had

18 that this was an update about how those materials were

19 being maintained and that they were available to the

20 public?

21 MR. FULTON: So again because I wasn't at this

22 particular meeting, I don't have direct knowledge of

23 that discussion.

24 I -- based on my interpretation of these

25 meeting minutes, it appears that the AOC managers from

1   NMED and Chino Mines are providing the work group with

2   an update about a new repository web page.

3   MR. SCHLENKER-GOODRICH: And similar to your

4   statement for Exhibit L, that the minutes reflect the

5   discussion at those meetings that this is the -- this is

6   the only documentation there is for that meeting?

7   MR. FULTON: It just --

8   MR. SCHLENKER-GOODRICH: That you're aware of.

9   MR. FULTON: That I'm aware of.

10   But just to clarify something, Exhibit L is --

11 what's the date of the minutes on that Exhibit L?

12   MR. SCHLENKER-GOODRICH: The September 17th,

13 2013.

14   MR. FULTON: Okay. Again, since I don't have

15 direct knowledge, not being in attendance to these, that

16 would be my general impression.

17   MR. SCHLENKER-GOODRICH: On the basis of the

18 website materials or in any of these meetings, did --

19 just on the website materials, did any members of the

20 public ask questions or submit comments using that

21 website portal?

22   MR. FULTON: Not to my knowledge.

23   MR. SCHLENKER-GOODRICH: Regarding all of

24 the minutes, who prepares the community work group

25 minutes?

1   MR. FULTON: To my knowledge, that would be

2   the secretary of the community work group, but I can't

3   -- I can't state that with certainty.

4   MR. SCHLENKER-GOODRICH: Relative to the

5   website, you noted that certain -- and at all of these

6   meetings, you noted that certain materials were provided

7   or that the public had access to these materials on the

8   website. I guess asking specifically about the website.

9   Correct?

10   MR. FULTON: (Witness nods head.)

11   MR. SCHLENKER-GOODRICH: Did the website --

12 I'm sorry, forgive me.

13   In all of these meetings and in terms of the

14 website materials, it seems that underlying scientific

15 and technical materials regarding the proposed

16 site-specific criteria were provided to the public.

17 Correct?

18   MR. FULTON: It would -- correct.

19   MR. SCHLENKER-GOODRICH: Did Chino Mines

20 submit the actual proposed site-specific criteria

21 proposal to the public for review and comment?

22   MR. FULTON: So we notified the community work

23 group meeting that that petition would be provided on

24 NMED's web page as part of the triennial process and

25 that specific comments with respect to the petition

1 could be submitted as part of the triennial process.

2   MR. SCHLENKER-GOODRICH: And that petition was

3 provided with the -- by the notice of intent deadline?

4 The petition was the notice of intent essentially? Am I

5 correct?

6   MR. FULTON: Correct.

7   MR. SCHLENKER-GOODRICH: Setting aside the

8 meetings and the website, are you -- are you aware of

9 any other public comments or questions that have been

10 raised to Chino Mines regarding this petition?

11   MR. FULTON: Not to my knowledge.

12   MR. SCHLENKER-GOODRICH: Can you point to

13 anything in Chino Mines' petition or supporting

14 materials that specifically presents and responds to the

15 public questions raised during these public

16 participation efforts, with the caveat of the brief

17 discussion we had regarding Exhibit K, where there was a

18 response to two of eight -- or a general response to two

19 of eight questions?

20   MS. CHAPPELLE: I'm going to lodge an

21 objection on the basis that I don't see where that

22 requirement is in the rule.

23   MR. SCHLENKER-GOODRICH: Well, let me read

24 20.6.4.10.D(3)(c). It states "A petition for the

25 adoption of site-specific criteria shall describe the

1　methods used to notify and solicit input from potential

2　stakeholders and from the general public in the affected

3　area" -- and this is the key -- "and present and respond

4　to the public input received."

5　　　　　MS. CHAPPELLE: So I understand that counsel

6　potentially and I are going to engage in a legal

7　discussion about the meaning of that rule, and I would

8　note that the beginning of that sentence indicates a

9　request and a requirement to provide the method by which

10　both of those two following clauses are required.

11　　　　　So I would like to note for the record we have

12　a fundamental disagreement with respect to the

13　interpretation of this rule by Amigos Bravos.

14　　　　　MR. SCHLENKER-GOODRICH: I would agree with

15　that disagreement very much.

16　　　　　Amigos Bravos' view is that there are two

17　requirements in this regulatory provision -- or this

18　standard. One is which to identify how they reached out

19　to the public, and then the second is a specific

20　requirement in the petition to identify and respond to

21　the questions raised by the public.

22　　　　　So I would very much agree with counsel for

23　Chino Mines. I don't think that obviates my ability to

24　proceed with cross-examination on this topic.

25　　　　　MR. CHAVEZ: I'll allow the question.

1   MR. SCHLENKER-GOODRICH: So I believe this

2   answers my following two questions. Is it -- but let me

3   just confirm.

4   Is Chino Mines' position that the petition

5   must describe the methods for how public participation

6   was conducted?

7   MS. CHAPPELLE: Again, I'm going to object

8   because this -- this is an expert witness, one; and,

9   two, he's not a witness here that can really discuss

10   what Chino's position with respect to its petition would

11   be. Plus, it also calls for a legal conclusion. So

12   those are my objections.

13   MR. SCHLENKER-GOODRICH: I understand that.

14   I would note for the record that in the direct

15   testimony, Ms. Chappelle did ask for the expert's

16   position on whether or not they complied with the public

17   participation requirements and specifically noted the

18   standard in the rule.

19   So if she was entitled to ask that question,

20   I think I should be entitled to ask that question as

21   well.

22   MS. CHAPPELLE: And just as a quick response,

23   I would note the distinction that that was his position,

24   not Chino's position.

25   MR. SCHLENKER-GOODRICH: Granted.

1   MR. CHAVEZ: And if the witness doesn't have

2   an answer or doesn't know the answer, I think he can

3   answer in the affirmative that he doesn't know.

4   MR. SCHLENKER-GOODRICH: That's fine.

5   MR. CHAVEZ: Can you --

6   MR. FULTON: Yeah, I'm not exactly sure of the

7   answer to your question.

8   MR. SCHLENKER-GOODRICH: Is it your position

9   that the petition must also specifically present and

10   respond to the questions raised by the public in the

11   course of its public participation efforts?

12   MR. FULTON: Again, I'm not quite sure of the

13   answer to that question.

14   MR. SCHLENKER-GOODRICH: If the petition does

15   not identify and specifically respond to the questions

16   raised by the public, how can the Commission be ensured

17   that the petition is, in fact, responsive to the

18   public's concerns?

19   MS. CHAPPELLE: I'm going to note the same

20   objection.

21   MR. SCHLENKER-GOODRICH: I would note my same

22   response.

23   MR. CHAVEZ: I direct the witness to answer

24   the question if he can.

25   MR. FULTON: Can you repeat the question?

1   MR. SCHLENKER-GOODRICH: If the petition for

2   site-specific criteria does not specifically identify

3   the questions raised by the public and the -- and Chino

4   Mines' responses to those questions, how can the

5   Commission be ensured that the petition is, in fact,

6   responsive to the public's concerns?

7   MR. FULTON: I guess I would say that I'm not

8   quite sure of the answer to that question.

9   MR. SCHLENKER-GOODRICH: No further questions.

10   MR. CHAVEZ: Thank you.

11   Chevron, any cross-examination?

12   MR. ROSE: No questions.

13   MR. CHAVEZ: Thank you.

14   I would then like to move to the Commission,

15   Mr. Chairman, for any questions, cross-examination of

16   these witnesses.

17   MR. DOMINGUEZ: Thank you, Mr. Hearing

18   Officer.

19   Before we move to specific questions by the

20   Commission, I would remind Commissioners to frame your

21   questions centered around the testimony of the two

22   witnesses and the applicable expertise presented in

23   their testimony.

24   With that, I'll turn to the Commission for

25   questions.

1   Commissioner Hutchinson, followed by

2   Commissioner Bamman and Commissioner Longworth.

3   CROSS EXAMINATION BY COMMISSION MEMBERS

4   MR. HUTCHINSON: I guess this is for

5   Dr. Meyer.

6   Are the aquatic life form protective

7   concentrations of copper in anticipation of copper

8   accumulating down the food chain?

9   In other words, you said they were protective

10 of 50 percent -- or 50 percent toxicity to life forms.

11 But does that copper accumulate as it moves down the

12 food chain into, let's say, fish species and then human

13 consumption?

14   MR. MEYER: Mr. Chairman and Commissioner

15 Hutchinson, studies that have been done so far do not

16 demonstrate a biomagnification, which is what I believe

17 you're referring to --

18   MR. HUTCHINSON: Yes.

19   MR. MEYER: -- a biomagnification of metals

20 like copper through the food way.

21   So if you're concerned about the DDT

22 biomagnification, for example, the classic one, no, it

23 doesn't.

24   MR. HUTCHINSON: Thank you.

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

1   MR. DOMINGUEZ: Commissioner DeRose-Bamman.

2   MS. DeROSE-BAMMAN: I must confess, I didn't

3 read all the technical documents that were in support of

4 it, but I read the testimonies, and so I have a couple

5 of questions just about the procedures, the sampling

6 procedures, and the analysis, the toxicity tests

7 themselves.

8   So I'm assuming -- what kind of samples were

9 collected? Were they grab samples? Or did you have

10 samplers out there to collect them over a period of

11 time?

12   I realize those events -- you could never

13 really tell how long they would last but -- so what kind

14 of --

15   MR. MEYER: Mr. Chairman and Commissioner

16 DeRose-Bamman, I can generally respond to that.

17   When we have very specific questions, I will

18 defer to Mr. Fulton, though, if that's all right with

19 you.

20   MS. DeROSE-BAMMAN: Oh, sure. Thank you.

21   MR. MEYER: Okay. Thank you.

22   No, those were grab samples. We did not have

23 something like the Isco time sampler out there. So they

24 were the go to one site, grab water, put it on ice,

25 prepare it, go to another site and grab more water.

1   MS. DeROSE-BAMMAN: It must have been a fun

2   event, especially to try and get to all those locations,

3   right, at the same time.

4   The toxicity tests -- and maybe this is

5   obvious from the support documentation -- you have two

6   species, the Daphnia magna and the fathead minnow, but a

7   lot of the charts that you provided were just for the

8   Daphnia magna. So can you tell me why?

9   MR. MEYER: Mr. Chairman and Commissioner

10   DeRose-Bamman, the reason is the Daphnia magna were the

11   more sensitive of the two species. So we thought, for

12   brevity, so we don't dump the whole load on you, that

13   that would be the most appropriate, and the Daphnia

14   magna would be the preferred species based on the US EPA

15   guidance because they were the more sensitive. So we

16   based the water effect ratios on them.

17   The fathead minnow results were just used in

18   what US EPA calls a confirmatory mode to demonstrate

19   that other species provide a similar result as the

20   Daphnia magna.

21   MS. DeROSE-BAMMAN: Okay. Thank you.

22   The approach -- when permittees have been

23   asked to do toxicity tests on a regular basis, it's the

24   whole effluent toxicity, and so, you know, we -- it's

25   probably a similar setup, but I think the whole -- the

1 permittees need to do it on a series dilution of the

2 effluent, so it's a one time -- well, it's actually over

3 -- many of us have to do it over a seven-day period, so

4 -- but I'm assuming that this approach is just based on

5 that one volume of sample that you receive.

6   Then is that -- what you described in your

7 presentation is there are aliquots of that larger

8 volume, and then that's where you're adding the various

9 concentrations of copper, along with the various other

10 parameters -- I can't remember what the -- how you set

11 them up.

12   So is that -- that's your basis for -- for

13 both species, you have the series of copper, the

14 dilutions of copper in your sample, and the magna and

15 the fathead minnows in the separate containers -- the

16 test containers themselves. Is that right?

17   MR. MEYER: Mr. Chairman and Commissioner

18 DeRose-Bamman, yes, you have exactly the right idea.

19   The actual conduct of the toxicity test, after

20 the waters are prepared in the laboratory, essentially

21 it's the same, but as you pointed out, the preparation

22 of the waters is drastically different between a WER, or

23 a water effect ratio test, and a WET test, which is the

24 whole effluent toxicity.

25   The purpose of the WER study is to determine

1 how -- in this case with copper, how much copper can be

2 added before you cause adverse biological effects.

3   The WET toxicity test's purpose is to

4 determine what concentration of the effluent is

5 tolerable by these organisms. So you dilute that

6 effluent -- do nothing to it except dilute it to get to

7 a safe concentration.

8   Whereas, in the WER test, we're trying to find

9 out what can be tolerated by adding more and more copper

10 without changing the water chemistry at all.

11   So in one you change the water chemistry by

12 dilution, and in the other, you don't change it, but you

13 add copper in the test in which you don't change the

14 water chemistry.

15   MS. DeROSE-BAMMAN: Thank you.

16   And you had set concentrations of copper that

17 you added, correct, for each test, so that you had the

18 same range?

19   Let's say -- what was the range of copper that

20 you added to the vessels?

21   MR. MEYER: Mr. Chairman and Commissioner

22 DeRose-Bamman, the range of copper depended on the

23 chemistry of the water, because the more DOC --

24   MS. DeROSE-BAMMAN: Right.

25   MR. MEYER: -- if you haven't seen this enough

1 times already, the more copper we would have to put in,

2 so a higher range of copper concentrations, or the

3 higher the alkalinity, or, in fact, the higher the

4 hardness also of the water.

5   If you want specific concentrations,

6 Mr. Fulton could give you a better idea.

7   MR. FULTON: Well, Mr. Chairman and

8 Commissioner, I could just add to that discussion, in

9 that while I don't know the exact concentrations at --

10 or tested for each sample, the way that we determine the

11 appropriate test series of concentrations was that

12 immediately upon receipt of the samples, the toxicity

13 testing laboratory would conduct what is referred to as

14 a screening level test, so a shorter duration test, just

15 to give a broad idea of maybe what concentrations would

16 be toxic and which would not based on the chemistry,

17 and then from that information, we selected a pretty

18 wide range to ensure that we would bracket that EC50

19 value.

20   MS. DeROSE-BAMMAN: I noticed your -- the

21 middle chart of your results for EC50 on -- well, also

22 the bottom two charts, they are logarithmic, so you had

23 quite a big span of EC50s, I mean, because the scale is

24 logarithmic, so --

25   MR. MEYER: Yes.

1   Mr. Chairman and Commissioner, that's exactly

2   correct, a very astute observation.

3   And, in general, you can see that the span

4   between the orange and the black dots is at least a

5   factor of ten, meaning a factor of ten less toxicity in

6   the site water than in the lab waters.

7   MS. DeROSE-BAMMAN: And how these -- how

8   you're proposing that this applies -- so you had

9   mentioned in the presentation about the -- it's on the

10   second-to-the-last page of slides, the middle slide, the

11   analogy between hardness-based and the water-effects-

12   ratio-based criteria, and the statement in red "DOC" --

13   it's at the very bottom of the slide, "But DOC and

14   alkalinity predict copper toxicity better than hardness,

15   at ten percent versus 85 percent of variance in toxicity

16   accounted for."

17   So -- but this -- so the -- the water effects

18   ratio is still applied to the hardness-based calculating

19   criterion, right?

20   So you're saying you're calculating this, but

21   then you apply it to the hardness-based factor based on

22   acute or chronic, depending on what the scenario calls

23   for?

24   MR. MEYER: Mr. Chairman and Commissioner

25   DeRose-Bamman, that's exactly correct. I believe you

1 understand fully.

2   And the reason is the current criteria -- the

3 hardness-based criteria actually account for a small

4 portion of the toxicity and you do not throw that out

5 with the water effect ratio.

6   The water effect ratio is just an adjustment

7 to account for everything else.

8   So multiplying the two together account for

9 all of the toxicity in the water.

10   Is that --

11   MS. DeROSE-BAMMAN: Yes.

12   MR. MEYER: -- responsive?

13   MS. DeROSE-BAMMAN: Thank you.

14   And I think it's interesting, with any of the

15 criteria that are a function of another parameter,

16 hardness-based, or in this case the DOC and alkalinity,

17 I'm always wondering how do we come up with that number?

18 How does the -- what's the DOC number?

19   Is it just from the sample of the day, or is

20 it over a year period -- this isn't really something for

21 you, but it's interesting to -- really, what's the

22 process for proper implementation of those formula-based

23 criteria, whether it's -- so I'd be interested in

24 knowing, is there a part of the proposal -- does it

25 include what the optimum -- you know, the optimum way to

1 calculate what DOC should be used, that figure that

2 should be used, or the alkalinity value that should be

3 used to come up with the criterion -- the actual

4 criterion that would apply?

5   MR. MEYER: Mr. Chairman and Commissioner,

6 analogous to what is done with hardness criteria, the

7 code states the equation for the hardness-based

8 criteria. The implementation of that is performed by

9 the Surface Water Quality Bureau of NMED.

10   And analogous here, if adopted into the code,

11 this equation for site-specific criteria would then be

12 implemented by NMED and they would choose what to do.

13   I would envision one possibility being

14 analogous to what is done with hardness, and the

15 hardness varies through the year, and you, therefore,

16 have to pick a hardness of either instantaneous or

17 perhaps the 15th percentile, it depends on what state

18 you're in, and that's the proof in the pudding or, you

19 know, the details that have to be handled by the Surface

20 Water Quality Bureau.

21   MS. DeROSE-BAMMAN: Okay. No further

22 questions.

23   Thank you, Mr. Chairman.

24   MR. DOMINGUEZ: Thank you.

25   Commissioner Longworth.

1   MR. LONGWORTH: Thank you.

2   Thank you for providing this. This is really

3   very helpful, and hopefully I can get through this

4   pretty quick.

5   In the site setting you described this as

6   ephemeral. We're using ephemeral as it's defined

7   currently in the rule?

8   MR. FULTON: Mr. Chairman, Commissioner, that

9   is correct. I think they were defined as a range of

10 ephemeral and intermittent waters.

11   MR. LONGWORTH: So following up on that, did

12 you do any type of protocol in relations to drought

13 conditions, 20-hour precip events?

14   I mean, in other words, how did you know to go

15 out and sample?

16   MR. FULTON: Separate from -- Mr. Chairman,

17 Commissioner, separate from the site-specific criteria

18 study, a hydrology protocol was conducted on these

19 particular drainages, as described by Ms. Pintado

20 yesterday.

21   For the -- this -- the actual site-specific

22 criteria study, EPA guidance states that the sampling

23 should not be conducted during or immediately following

24 a rain event.

25   So to ensure that we could collect sufficient

1 water samples for the study designed, we did plan to

2 sample during the monsoonal season and -- and just

3 ensured that we were not in the field collecting samples

4 during or immediately after a rain event.

5   MR. LONGWORTH: And just following up on that,

6 there was two rounds of sampling.

7   When we talk about "a round," what does that

8 mean?

9   MR. FULTON: Mr. Chairman, Commissioner, a

10 discrete sampling event. So one round would define a

11 discrete event in which a single effort was -- a single

12 mobilization effort was made to the field to go and

13 collect the water samples and all shipped to the

14 toxicity testing laboratory as well as the analytical

15 chemistry laboratory.

16   MR. LONGWORTH: So, in other words, in the two

17 rounds of sampling you did, in the first round, 12

18 samples, and in the second round, a subset of those 12?

19   MR. FULTON: That's correct.

20   MR. LONGWORTH: I think on the -- on slide 14,

21 I have just a couple quick questions on that.

22   On the X axis, what does that mean?

23   MR. FULTON: Slide 14.

24   MR. MEYER: Do you have a copy?

25   Mr. Chairman, please excuse us while we try to

1 figure out which slide 14 is.

2   MR. DOMINGUEZ: For the record, that would be

3 the middle slide on page five, I believe.

4   Is that correct?

5   MR. LONGWORTH: That's correct.

6   MR. DOMINGUEZ: Entitled "WER Results:

7 EC50s."

8   MR. MEYER: Yeah, the -- Mr. Chairman and

9 Commissioner, if I understand correct, this is the "WER

10 Results: EC50s" slide that you're referring to.

11   MR. LONGWORTH: Yes. I'm sorry, Mr. Chairman.

12 Yes, this is "WER Results: EC50s."

13   MR. MEYER: Yes.

14   MR. LONGWORTH: And so rephrasing my question,

15 is it on -- on the X axis, it goes 1-1, 1-2, 1-6, 1-7,

16 1-9, and there is little ticks, and then there is a

17 toxicity decrease indicated under 1-1. I'm just

18 curious, what does 1-1, 1-2 mean?

19   MR. FULTON: Mr. Chairman, Commissioner, those

20 are the sample codes unique to each sample.

21   So each of those represent a location, and the

22 prefix 1 would be the first round of sampling; whereas,

23 the prefix 2 is the second round of sampling.

24   MR. LONGWORTH: And prefix D-1, D-2?

25   MR. FULTON: Mr. Chairman, Commissioner, those

1 were just labeled according to watershed names.

2   On this particular site, many of these are

3 unnamed drainages, so drainages that were never

4 designated in any historical maps, and so a sample code

5 was just established to essentially inventory where

6 those samples were collected and have documentation as

7 to where those samples were collected.

8   MR. LONGWORTH: Okay. Thank you.

9   And then you have "WER," is that -- on that

10 same chart. All the way to the left -- the right Y

11 axis, there is a red W-E-R.

12   That's just a label to remind us that that's a

13 WER result?

14   MR. FULTON: Mr. Chairman, Commissioner, the

15 -- that's -- that was provided for illustrative purposes

16 to illustrate that the -- the magnitude of difference

17 between the black points, which are the site water

18 samples and the orange points which are the laboratory

19 samples, are the representation of the water effect

20 ratio.

21   So the water effect ratio is really the site

22 water divided by the lab water, or the site water EC50

23 divided by the lab water EC50; and the magnitude of

24 difference between those two points in the vertical

25 direction would kind of approximate the magnitude of the

1 water effect ratio.

2   MR. LONGWORTH: Okay. So that's kind of

3 superfluous in terms of what the chart is really

4 showing.

5   As I read it, it's really showing -- or it's a

6 toxicity decrease, and as it's stated, you have results

7 on the order of 10, but it's certainly significant for

8 all except sample 1-12, or seemingly significant, and

9 that -- I'm still not sure of why that's there.

10   That's okay. We can move on.

11   So the next question I have is on the next

12 slide. This is on page five, slide 15. We have the

13 hardness, and we have -- on the Y axis is a logarithmic,

14 and it's the dissolved Cu EC50.

15   What -- and it says in the X axis that it's

16 hardness milligrams per liter.

17   Which -- is it the -- which -- what sample is

18 that? Is that the lab sample, or is that the site-

19 specific sample?

20   MR. MEYER: Mr. Chairman and Commissioner

21 Longworth, all the points -- all the black points that

22 are plotted on that graph are the site water samples.

23 There are no lab water samples plotted on there.

24   And the red brace, or whatever symbol you want

25 to call that, that has greater than 12x beside it, is

1   just to illustrate that at the same water hardness you

2   can get everything from a very low EC50 to a high EC50,

3   because other water chemistry parameters also vary that

4   determine toxicity more than the hardness.

5   MR. LONGWORTH: Great. That's very helpful.

6   Thank you.

7   I think my last question is going to page six,

8   slide 18.

9   Yeah, me, too.

10   Take your time.

11   MR. MEYER: Yes.

12   MR. LONGWORTH: So the question I have there

13 is we have an R squared of 85 and -- whereas, the

14 previous two slides we were shown some data, which I'm

15 assuming is the site-specific data, but we don't have a

16 chart showing the R squared of 85.

17   I have a sense of why that might be, but if

18 you could help me understand why we kind of see the DOC

19 -- the dissolved organic material and the alkalinity in

20 separate regression charts; whereas, when we have the

21 actual equation, we're not seeing the combination of the

22 two in that regression chart.

23   MR. MEYER: Mr. Chairman, Commissioner

24 Longworth, the main reason for not showing a graph here

25 is because we have two independent variables, two

1 predictor variables, and it actually becomes a difficult

2 graph to show, and that's the reason that we didn't

3 include one here.

4   But the previous graphs were all with one

5 predictor, and it's quite easy just to show whether they

6 fit on that central regression well -- line well or if

7 they are plotting far away, and it's just much more

8 difficult in that 3D space than in the two-dimensional

9 space.

10   We'll be happy to provide -- if needed, we'd

11 be happy to provide some visualization if that will

12 help.

13   MR. LONGWORTH: No, that's fine. I just

14 wanted to get a clarification.

15   That's all, Mr. Chairman. Thank you.

16   MR. DOMINGUEZ: Commission Tongate.

17   MR. TONGATE: Your work here was obviously

18 just focused on copper.

19   Are these methods that you used -- also, can

20 they be comparable tests to be conducted for other

21 metals that are commonly found in surface waters?

22   MR. MEYER: Mr. Chairman and Commissioner

23 Tongate, yes.

24   In fact, the water effect ratio is intended to

25 be used with any chemical, whether it be a metal or any

1 other inorganic compounds or organic chemicals, can all

2 be tested with the water effect ratio method.

3   And definitely other metals will have -- some

4 will have very high water effect ratios in site waters,

5 like we had out at STSIU. But copper is the metal of

6 interest here at STSIU.

7   MR. TONGATE: Thank you.

8   MR. HUTCHINSON: Can I follow up on that?

9   MR. DOMINGUEZ: Commissioner Hutchinson.

10   MR. HUTCHINSON: Never mind.

11   MR. DOMINGUEZ: Disregard that. I turn this

12 direction. Commissioners on this side of the room.

13   MR. HUTCHINSON: Oh, I -- Mr. Chairman, I'll

14 go ahead and ask it, since --

15   MR. DOMINGUEZ: You lost your turn.

16   Commissioner Hutchinson.

17   MR. VIGIL: I thought you had to go to the

18 doctor.

19   MR. HUTCHINSON: What has been EPA's response

20 to this method? And have you had any other interactions

21 with proposing these site-specific standards using this

22 methodology?

23   MR. MEYER: Mr. Chairman and Commissioner

24 Hutchinson, US EPA developed the water effect ratio

25 procedures, so all procedures we used were using the EPA

1 guidance in several different handbooks; and all across

2 the country, site-specific water quality criteria have

3 been allowed for metals, especially copper is one that

4 responds quite highly -- strongly to water chemistry

5 parameters.

6   So municipal water treatment discharges often

7 get site-specific criteria for their effluents.

8   MR. HUTCHINSON: Okay. Thank you.

9   MR. MEYER: So it is a very common thing. It

10 is not uncommon. This is the first that I'm aware of in

11 New Mexico, though.

12   MR. DOMINGUEZ: Go to Commissioner Dawson.

13   MR. DAWSON: Thank you, Mr. Chairman.

14   When you did your site setting and your

15 sampling out here, that was in 2011. Correct?

16   MR. FULTON: Mr. Chairman, Commissioner

17 Dawson, that's correct.

18   MR. DAWSON: Do you anticipate that the -- if

19 you sampled today, would it change much? Is it -- in

20 regards to how it was in 2011?

21   MR. FULTON: Mr. Chairman, Commissioner

22 Dawson, there is no reason for me to suspect that

23 anything has changed out there between now and 2011.

24   I would anticipate that the model would

25 accurately predict those results, given that the basis

1 of the model is to predict toxicity based on chemistry;

2 therefore, the model is sensitive to chemistry changes.

3   So if there were any changes in chemistry out

4 there, the model would capture that and be able to still

5 accurately predict that toxicity.

6   MR. DAWSON: So the toxicity test that you

7 conducted in 2011, today it would be the same tests,

8 roughly, that you conducted in 2011?

9   MR. FULTON: Mr. Chairman, Commissioner

10 Dawson, if we were to collect -- conduct toxicity tests

11 today, we would still use the EPA procedures and conduct

12 those toxicity tests using the same guidance and the

13 same test designs.

14   MR. DAWSON: Okay. Thank you.

15   MR. DOMINGUEZ: Commissioner DeRose-Bamman.

16   MS. DeROSE-BAMMAN: Thank you, Mr. Chair.

17   Which months of the year did you collect the

18 samples?

19   MR. FULTON: Mr. Chairman, Commissioner, I

20 believe that was August and September.

21   Let me double-check. That's correct, August

22 and September.

23   MS. DeROSE-BAMMAN: And on the charts where

24 you can actually count the number -- chart 14 on page

25 five, there are 17 results reported but there were 18

1   total collected, is that correct, or do you --

2   MR. FULTON: Mr. Chairman, Commissioner,

3   that's a good question and a good observation.

4   So there are 18 locations shown on the map and

5   17 results shown on the graph, and the reason for that

6   is because one of the samples that was collected, we

7   were unable to calculate the statistical EC50 value.

8   So we weren't able to calculate it according

9   to EPA methods based on the toxicity results. So per

10   the EPA guidance, we weren't allowed to incorporate that

11   into the derivation of the water effect ratio.

12   MS. DeROSE-BAMMAN: With the -- so then your

13   calculation of the EC50 was for all of them, all the

14   data you had? You -- or you took the most -- based on

15   the 17 points -- and I'm sorry, I didn't refresh my

16   memory or read the detailed document, but -- so then you

17   statistically analyzed these and you came up with one

18   EC50 for all those 17 points?

19   MR. FULTON: Mr. Chairman, Commissioner, we

20   calculated an EC50 for each sample --

21   MS. DeROSE-BAMMAN: Right.

22   MR. FULTON: -- except for the one sample

23   where, based on the toxicity data, we weren't

24   statistically able to calculate that result.

25   MS. DeROSE-BAMMAN: Okay. Looking at your

1   formula on -- I'm sorry, I need to get my glasses out

2   here -- it's on the last -- whatever slide it is, it

3   must be 18, on the bottom of page six, where you

4   actually report the regression model, does "species"

5   mean acute value?

6   How -- in -- I'm not trying to have a

7   three-hour discussion here on this.

8   Would it -- why is it not appropriate -- is

9   there not a species meaning chronic value that would be

10   appropriately applied to the chronic value?

11   MR. MEYER: Mr. Chairman and Commissioner

12   DeRose-Bamman, again, that's a very astute observation.

13   The calculation of the water effect ratio is

14   the site water EC50, which is an acute toxicity value,

15   and dividing by a chronic value would be apples and

16   oranges.

17   You could, if you had conducted -- if we had

18   conducted chronic toxicity tests, we would have the

19   numerator be the site water chronic EC50 instead of the

20   acute and then we could divide by the species, meaning

21   chronic value. But to keep apples and apples, it's

22   acute in the numerator and acute in the denominator.

23   MS. DeROSE-BAMMAN: But then you're also

24   proposing that this be applied to the chronic criteria

25   for aquatic -- to protect aquatic life?

1   MR. MEYER: Mr. Chairman and Commissioner

2   DeRose-Bamman, that's correct.

3   In the EPA guidance -- in the US EPA guidance

4   on conducting water effect ratios to calculate

5   site-specific criteria, they specifically state that the

6   water effect ratio, determined by acute tests, is

7   assumed to apply to chronic toxicity and therefore to

8   chronic criteria.

9   MR. LONGWORTH: On that point --

10   MR. DOMINGUEZ: Commissioner Longworth.

11   MR. LONGWORTH: Can you state the reference on

12   that?

13   MR. MEYER: That is -- Mr. Chairman and

14   Commissioner Longworth, that is in Appendix L of the US

15   EPA Water Quality Standards Handbook. Appendix L is the

16   water effect ratio guidance -- the initial water effect

17   ratio guidance that EPA produced.

18   And then in 2001, EPA produced a copper water

19   quality -- water effect ratio guidance document that

20   specifically stated the species mean acute values as the

21   appropriate denominator for the circumstance that we had

22   here.

23   Without getting into great detail, it was --

24   as NMED recommended to us, that was the most appropriate

25   denominator for the calculation of the water effect

1 ratio.

2   MR. LONGWORTH: Thank you.

3   MR. DOMINGUEZ: Commissioner Waters.

4   MR. WATERS: Looking at the -- and I'm going

5 to follow up on the question about the variability or

6 the conditions from 2011 to present.

7   Over a period of time, these site-specific

8 standards may experience changes in surface conditions,

9 maybe even over a seasonal period of time, that would

10 affect the organic loading rate of the streams that are

11 there.

12   How is that taken into account on these site-

13 specific standards? A forest fire, for example, the

14 effect of that on -- would you have to redo the -- you

15 know, redo the sampling after an event like that that

16 could change the surface organic matter, you know,

17 content, or how does that factor into the overall

18 standards?

19   MR. MEYER: Mr. Chairman and Commissioner

20 Waters, that, again, as in my response before, is a

21 matter of discussion and decision by NMED.

22   Because it is again analogous to how the

23 hardness criteria are actually implemented, and after a

24 forest fire, you could have a change in the water

25 hardness, also, so the criterion concept could change

1　for any water hardness-based, you know, metal or any

2　other chemical of concern.

3　　　　　So that would be an implementation decision.

4　I suspect that NMED might have the same question that

5　you're raising, and they might want a water chemistry

6　analysis.

7　　　　　The beauty of the criterion that we're asking

8　you to adopt is that it's based on a regression equation

9　that takes into account these water chemistry

10　parameters, and if those water chemistry parameters

11　change through time, the regression equation that will

12　be in the code still applies, but the implementation by

13　NMED might be modified based on major changes as you

14　brought up.

15　　　　　MR. WATERS: Thank you.

16　　　　　MR. DOMINGUEZ: Commissioner Pattison.

17　　　　　MR. PATTISON: I think I have a question,

18　Mr. Chairman, and maybe you can help me clarify in my

19　own mind what the purpose of this -- getting into these

20　specifics and so forth for copper and the association of

21　that with temporary standards.

22　　　　　This is the way the temporary standards are

23　developed, or is that an incorrect assumption?

24　　　　　MR. MEYER: Mr. Chairman and Commissioner

25　Pattison, it is my understanding -- and I do not claim

1 to be an expert on the temporary standards, but it is my

2 understanding that the temporary standards are not

3 derived by a mathematical formula like the

4 hardness-based criteria or the alkalinity and

5 dissolved-organic-carbon-based criteria that we are

6 talking about here.

7   The temporary standard is a number that is --

8 if I understand correctly, is chosen to represent a

9 reasonable concentration that would be allowed for a

10 short duration during which a petitioner would be

11 allowed to have a higher concentration than the current

12 criteria that were developed by the mathematical

13 calculation procedure that is used for hardness-based

14 criteria or is used for our site-specific criteria.

15   So I think the temporary standards are totally

16 dissociated from the current criteria that you're

17 thinking of.

18   Is that responsive?

19   MR. PATTISON: I believe it is.

20   If I understand what you're saying and have

21 said by this copper application, that if the figures

22 that you have given in the site-specific criteria are

23 available to an applicant and they can show them, then

24 the Department can award a temporary standard -- or

25 develop a temporary standard for that site-specific

1 industry or whatever.

2   Am I interpreting that correctly, or not?

3   MR. MEYER: Mr. Chairman and Mr. Commissioner,

4 perhaps I did not understand fully what you're asking,

5 but if I may phrase it my way and then please correct me

6 if I misunderstand.

7   I think you are asking whether the

8 site-specific criteria are just for a short duration of

9 time. Is that correct? And would, in essence, be a

10 temporary standard -- incorporated into a temporary

11 standard. Is that correct?

12   MR. PATTISON: Well, let me go at it a

13 different way.

14   MR. HUTCHINSON: Mr. Chairman --

15   MR. PATTISON: We've had testimony from the

16 public --

17   MR. HUTCHINSON: Mr. Chairman, Commissioner

18 Pattison.

19   I think that the answer to your question might

20 be that an applicant could go through the process that

21 Chino is proposing here, to propose a standard change

22 for a segment specific, and they -- if copper were the

23 particular element that they are dealing with, then they

24 could use this particular formula and maybe they could

25 use this formula for other metals or other possible

1 pollutants. So the temporary standard is designed for a

2 whole different avenue.

3   This is asking for a change in the standards,

4 and Chino has made this petition, and any interested

5 person can make an application for a change in the

6 standards at any time.

7   MR. PATTISON: Okay. I believe that -- that

8 clarifies the question in my mind.

9   Thank you very much. Thank you, Howard.

10   MR. DOMINGUEZ: Okay. Other questions by the

11 Commission?

12   Seeing none, Mr. Hearing Officer, that is all

13 the questions the Commission has for the Chino

14 witnesses.

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

16   I would now like to look towards the audience.

17   Is there anybody from the audience and the

18 public that would like to cross-examine these witnesses?

19   Seeing none, I would like to turn back to

20 Freeport for any redirect.

21   MS. CHAPPELLE: We have no redirect, Your

22 Honor.

23   MR. CHAVEZ: Thank you very much.

24   Now, I guess we want to look to San Juan.

25 It's 4:00, and so we want to go probably until about

1 4:45 to allow some public comment.

2   MS. CHAPPELLE: Just a clarification, Your

3 Honor, I was just wondering about the rebuttal request

4 we had made, having the discrete rebuttal from NMED at

5 the close of our direct.

6   MR. CHAVEZ: Actually, yes. That's good. If

7 you don't mind, Ms. McCaleb.

8   MS. McCALEB: I don't mind.

9   MR. CHAVEZ: Yes, why don't we proceed.

10   Do any of the parties have any objection to

11 what they are about to do?

12   MR. SCHLENKER-GOODRICH: What are they about

13 to do? I didn't hear, Germaine. Sorry.

14   MS. CHAPPELLE: Sorry.

15   We had originally made a request to move up

16 Dr. Dail's specific rebuttal testimony related to our

17 petition.

18   MR. SCHLENKER-GOODRICH: Okay. No objection.

19   MR. CHAVEZ: Please proceed.

20   Also, a clarification, NMED slides -- I'm

21 sorry, exhibits are admitted.

22   MS. TOWNSEND: Chino.

23   MR. CHAVEZ: Chino, I'm sorry.

24   Freeport Chino's exhibits are admitted and

25 slide M --

1   MS. CHAPPELLE: N.

2   MR. CHAVEZ: -- N --

3   MS. CHAPPELLE: And I misspoke. It's N.

4   MR. CHAVEZ: It actually should be marked as

5   slide N.

6   MS. CHAPPELLE: N, yes.

7   (Freeport-McMoRan Chino Mines Company Exhibits

8   A through N admitted.)

9   MR. VERHEUL: May I proceed?

10   MR. CHAVEZ: Please proceed.

11   BRYAN DAIL

12   after having been previously duly sworn or

13   affirmed, was examined and testified on rebuttal as

14   follows:

15   DIRECT EXAMINATION

16   BY MR. VERHEUL:

17   Q.   Good afternoon, Dr. Dail.

18   You were before the Commission all this

19   morning, so we will dispense with the introductories.

20   Did you prepare rebuttal testimony for this

21   hearing on behalf of the Bureau regarding other parties'

22   water quality proposals that are before the Commission?

23   A.   Yes, I did.

24   Q.   What exhibit number is that?

25   A.   That is Exhibit Number 14.

1   Q.   Has anything changed to your rebuttal

2 testimony since it was filed?

3   A.   Yes, it has.

4   Since that rebuttal testimony was filed, the

5 Department and myself, in a conference with

6 Freeport-McMoRan regarding the site-specific copper

7 criteria proposal, in regard to a few questions that we

8 had in regard to the range of applicability, in this

9 case the geographic extent to which the site-specific

10 copper criteria would apply, and, secondarily, we

11 wanted clarifications that had to do with the range that

12 the equation would apply to in regard to water

13 chemistry.

14   Those clarifications were made to the

15 satisfaction of the Department and also

16 Freeport-McMoRan, and we can now say that we support the

17 proposal without reservation, as noted in filed rebuttal

18 testimony.

19   Q.   So to be clear, is that Exhibit I?

20   A.   Exhibit I is part and parcel of defining where

21 the Department wanted or thought it wanted the site-

22 specific copper criteria to be listed.

23   There were two possible places within the New

24 Mexico Administrative Code that were proposed by

25 Freeport-McMoRan, and we clarified which one of those

1 would be more appropriate.

2   Q.   Is that depicted on Exhibit A of

3 Freeport-McMoRan's proposal?

4   A.   Exhibit A is indeed a map which depicts the

5 geographic extent, and Exhibit I explains that in prose.

6   Q.   Do you adopt the Bureau's Rebuttal Exhibit 14

7 as your testimony?

8   A.   Yes, I do.

9   Q.   And I believe you've already clarified this,

10 but just to be further clear, what is the Department's

11 position regarding Freeport-McMoRan's proposal to adopt

12 site-specific copper criteria for the Smelter and

13 Tailings Soil Investigation Unit?

14   A.   The Department's position on that is fully

15 supportive of Freeport-McMoRan's site-specific copper

16 criterion, as indicated in my filed testimony, with the

17 geographic limitations that we agreed upon.

18   Q.   Do you have any further rebuttal testimony in

19 this matter?

20   A.   I don't believe I do.

21   MR. VERHEUL: With the caveat that the

22 rebuttal for Dr. Dail was only limited to this issue and

23 he has further rebuttal testimony in the future on other

24 parties' proposals, I have no further questions for him

25 on rebuttal for this specific issue.

1   MR. CHAVEZ: Okay. Thank you.

2   If we can just take a five-minute break right

3   now, a really quick one, and then we'll continue back,

4   and once again I want to -- we'll probably go until like

5   4:45, with the last 15 minutes for public comment.

6   Thank you.

7   (Recess held from 4:06 to 4:12 PM.)

8   MR. DOMINGUEZ: If everybody could come back

9   together, we'll get back underway, please.

10   Thank you.

11   MR. CHAVEZ: Thank you. We're back on the

12   record.

13   San Juan, do you have any cross-examination

14   with regard to this witness?

15   MS. McCALEB: No, we do not, Mr. Hearing

16   Officer.

17   MR. CHAVEZ: Amigos Bravos?

18   MR. SCHLENKER-GOODRICH: No, Mr. Hearing

19   Officer.

20   MR. CHAVEZ: Chevron?

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

22   MR. CHAVEZ: Mr. Chairman, Commissioners, are

23   there any questions with regard to this witness?

24   MS. CHAPPELLE: Just for the record, Freeport

25   does not as well.

1   Sorry. I'm sorry. I just wanted to make sure

2   it was clear.

3   MR. CHAVEZ: Thank you very much. It's

4   getting late. So feel free, thank you.

5   MR. DOMINGUEZ: Questions from the Commission

6   on the specific rebuttal that just was presented?

7   No, sir.

8   MR. CHAVEZ: Seeing none, any members of the

9   public?

10   Seeing none, back to NMED.

11   MR. VERHEUL: We have nothing further for this

12   witness on this matter.

13   MR. CHAVEZ: Okay. Thank you.

14   You're excused for the time being.

15   San Juan, you may proceed.

16   (Oath administered to Charles L. Nylander.)

17   MS. McCALEB: Good afternoon, Mr. Hearing

18   Officer, Mr. Chairman, Members of the Commission.

19   Again, my name is Jolene McCaleb, and I'm an

20   attorney for the San Juan Water Commission.

21   With me is Charlie Nylander, who is the San

22   Juan Water Commission -- the Water Commission's expert

23   witness in this triennial review hearing.

24   The San Juan Water Commission has participated

25   in the state's triennial reviews since the late 1990s,

1   but because there are so many new Commissioners and

2   faces I haven't seen here before, I'd like to make a

3   brief statement about who the San Juan Water Commission

4   is so that you can all be familiar with the Commission

5   and its interests.

6   First of all, the San Juan Water Commission,

7   which I'll also often refer to as the SJWC, is a

8   political subdivision of the State of New Mexico.

9   It was formed under the New Mexico Joint

10   Powers Agreements Act, and it's located in San Juan

11   County.

12   The purpose of the Commission is to do two

13   things: to acquire raw water supplies and to protect

14   those raw water supplies for the municipal, industrial,

15   and domestic use of almost all water users in San Juan

16   County that live outside of tribal lands.

17   The county currently has a population of about

18   130,000 residents.

19   In addition, the San Juan Water Commission, as

20   a political subdivision itself, is comprised of 14 other

21   political subdivisions of the state. Those include the

22   cities of Aztec, Bloomfield and Farmington, the County

23   of San Juan, and a rural water users association, which

24   itself is comprised of ten political subdivisions, all

25   of which are non-profit mutual domestic associations

1   that are organized under the Sanitary Projects Act.

2   To fulfill its mission of providing raw water

3   supplies to the San Juan County area, the San Juan Water

4   Commission is a participant in the Animas La Plata

5   Project, and it holds a permit for 20,800 acre feet of

6   water diversions from the ALP Project. That water comes

7   primarily from the Animas River.

8   The Water Commission also holds permits for

9   water diversions totaling more than 10,000 acre feet a

10   year from the San Juan River basin unassociated with the

11   ALP Project, and these water rights are in addition to

12   and separate from the individual water rights owned by

13   its member entities.

14   The Water Commission has participated in the

15   triennial reviews since the 1990s because the water

16   quality standards directly impact its member entities,

17   some of whom discharge into the surface waters of the

18   state.

19   In addition, obviously, the water quality

20   standards impact both the health and the economy of San

21   Juan County.

22   With regard to this particular triennial

23   review proceeding, the Commission is participating for

24   three primary purposes.

25   First, San Juan Water Commission wishes to

1   state its general support for the Water Quality Bureau's

2   temporary standards proposal.

3   As some of you may recall, those who have been

4   here for a while, Commissioner Hutchinson, Commissioner

5   Vigil, you may recall that the San Juan Water Commission

6   previously proposed a variance procedure during the 2003

7   triennial review, but at that point in time the proposal

8   -- the concept, in fact, was opposed by the Bureau. So

9   the Water Commission is pleased that the Bureau is now

10   supportive of a variance or a temporary standards

11   procedure.

12   The Water Commission believes it's important

13   to have such a procedure in order to provide flexibility

14   and allow progress in improving water quality rather

15   than pursuing a downgrade of a criteria or a designated

16   use.

17   And in addition, the Water Commission would

18   like to specifically thank the Bureau for its meetings

19   with the Water Commission in efforts to resolve

20   outstanding issues.

21   In particular, months after the direct and

22   rebuttal testimony was filed by the parties in this

23   case, and as we discussed a bit yesterday, EPA issued

24   its final water quality standards regulation in which it

25   provides new guidance for variances.

1   Given that guidance, that the San Juan Water

2   Commission has now had an opportunity to digest, the

3   Water Commission is withdrawing some of its objections

4   or proposals for modifications to the Bureau's temporary

5   standards proposal, as Mr. Nylander will explain during

6   his testimony today.

7   Just to signpost those, for example, San Juan

8   Water Commission no longer objects to the term

9   "temporary standards" instead of the term "variance" in

10   the proposal.

11   Also, the San Juan Water Commission no longer

12   requests that the Water Quality Control Commission adopt

13   the temporary standards procedure under its authority in

14   74-6-4.H to adopt variances, but recognizes that this

15   Commission has the authority to adopt the Bureau's

16   proposal as a water quality standard itself.

17   Second, Mr. Nylander will explain San Juan

18   Water Commission's concerns about the Bureau's proposal

19   to upgrade nine water body segments from secondary to

20   primary contact. Specifically, the Water Commission

21   contends the Bureau has not provided sufficient

22   information to meet the appropriate regulatory

23   requirements to upgrade the designated use.

24   Third, San Juan Water Commission is

25   participating to support the Bureau's proposal to

1 downgrade the designated uses for 30 water body segments

2 based on UAAs conducted since the last triennial

3 review.

4   That said, the San Juan Water Commission is

5 using this opportunity to appear before you to highlight

6 its concerns about the impact of EPA's rebuttable

7 presumption that all waters are fishable/swimmable

8 unless proved to be otherwise after a UAA, and to

9 encourage this Commission to consider whether there

10 might be options available to avoid the imposition

11 of that rebuttable presumption where it's not

12 appropriate.

13   The details of the Water Commission's

14 positions on these issues are set out in Mr. Nylander's

15 written direct and rebuttal testimony and exhibits, as

16 they will be modified today during his oral testimony.

17   Mr. Hearing Officer, Mr. Nylander, with your

18 permission, intends to present or collapse both his

19 direct and rebuttal testimony into one presentation.

20   Because San Juan Water Commission didn't have

21 its own petition, its direct testimony goes to proposals

22 of other parties, and it was very difficult to parse out

23 direct testimony versus rebuttal testimony in that

24 regard. So we'd like to collapse it into one, if we

25 may.

1   MR. CHAVEZ: I have no problem with that.

2   You can proceed.

3   MS. McCALEB: Thank you. There would be one

4   exception to that, and that would be with regard to

5   Amigos Bravos.

6   Yesterday there was a filing by Amigos Bravos,

7   that we haven't had a full opportunity to digest, and

8   because there was no previous written testimony on that

9   proposal, we would like to hear their direct oral

10   testimony on that and, if appropriate, provide some

11   rebuttal at that time.

12   MR. CHAVEZ: Absolutely.

13   MS. McCALEB: Thank you.

14   So at this time, I would like to call

15   Mr. Nylander as the Water Commission's witness.

16   MR. CHAVEZ: Please proceed.

17   MS. McCALEB: Thank you.

18   CHARLES L. NYLANDER

19   after having been first duly sworn or affirmed,

20   was examined and testified on direct and rebuttal

21   as follows:

22   DIRECT EXAMINATION

23   BY MS. McCALEB:

24   Q.   Mr. Nylander, could you please state your full

25   name?

1   A.   My name is Charles L. Nylander.

2   Q.   And, Mr. Nylander, could you please summarize

3   your education and your relevant professional experience

4   that impacts your testimony here?

5   A.   I have a bachelor's of science degree in

6   agriculture with a major in wildlife management from New

7   Mexico State University.

8   I have a master's of science degree in water

9   resource management from the University of Wisconsin in

10   Madison.

11   MR. CHAVEZ: Ms. McCaleb, I'm sorry for the

12   interruption, but we did not swear the witness.

13   MS. TOWNSEND: Yes, we did.

14   MR. CHAVEZ: Oh, we did?

15   MR. NYLANDER: We did.

16   MR. CHAVEZ: My apologies.

17   MS. McCALEB: Yes, sir, we did before I

18   started my opening statement. We got a bit ahead of

19   ourselves.

20   MR. CHAVEZ: Not a problem. Sorry.

21   MS. McCALEB: Thank you.

22   MR. CHAVEZ: Please proceed.

23   MR. NYLANDER: Regarding professional

24   experience, I was employed by the Environmental

25   Improvement Agency beginning in 1973 and was a staff

1   member of that agency and its successor agency, the

2   Environmental Improvement Division, until approximately

3   1985, at which time I -- I moved up to the Los Alamos

4   National Laboratory as a scientist.

5   While I was employed with the environmental

6   agency in state government, I oversaw surface water and

7   groundwater programs, assisted in rule-making procedures

8   for both regulations of surface water, groundwater and

9   also water quality standards. I think everything is in

10   my resume and bio that fills in the details.

11   My required duties up in Los Alamos, I was

12   employed there collectively 20 years, I was an

13   environmental scientist and managed their NPDES permit

14   for approximately 120-plus outfalls on the laboratory

15   property, as well as their Safe Drinking Water Act

16   programs, PCB program, and spill control and prevention

17   programs.

18   The last ten years of my employment at the

19   lab, I was a program manager for the groundwater

20   characterization program and conducted a site-wide

21   hydrogeologic study of the Pajarito Plateau over a

22   ten-year period at a cost of approximately 70 million

23   dollars.

24   During my tenure at the lab, I did take a

25   leave of absence for about a year-and-a-half and took a

1 consulting job in Denver, Colorado, where I was project

2 leader for Ebasco Services, who had a basic

3 agreement at the Rocky Flats Plant to do environmental

4 investigations, and that was a break of service at the

5 lab, but I did return to the lab and finished my career

6 there in July of 2006.

7   Since July of 2006 and my retirement from the

8 lab, I have been an independent consultant with my own

9 company called Watermatters, LLC, and I'm consulting for

10 the San Juan Water Commission here today.

11   Q.   Mr. Nylander, if I may ask you just a brief

12 question, to highlight your experience with the State of

13 New Mexico. You mentioned that you worked with the

14 Environmental Improvement Agency from 1973 to 1985.

15   A.   Yes.

16   Q.   Was that agency the precursor to the New

17 Mexico Environment Department?

18   A.   Yes.

19   The Environmental Improvement Agency was the

20 very first agency, and that was stood up, I think, in

21 1970 or thereabouts, and it was followed by a successor

22 called the Environmental Improvement Division, and then

23 that ultimately became the New Mexico Environment

24 Department.

25   So my 12-year tenure with the state agency was

1 split. Part of the time was with the EIA and part of it

2 was the EID.

3   And when I worked for both those agencies,

4 that was in the very, very beginnings of environmental

5 program development in New Mexico, so I had the

6 opportunity to have a hands-on working relationship with

7 the Water Quality Control Commission.

8   I did serve as executive secretary for the

9 Commission for some time and was able to basically

10 follow triennial reviews of water quality standards

11 throughout that period as well as throughout my whole

12 career, which is almost 45 years now that I've been

13 doing this.

14   Q.   And during your tenure with the Environmental

15 Improvement Agency, were you, in fact, the chief of the

16 Surface Water Quality Bureau for three years?

17   A.   Yes, I was.

18   Q.   Thank you.

19   Mr. Nylander, was your resume prefiled?

20   A.   Yes.

21   Q.   And is that found at Exhibit A to the notice

22 of intent filed by the San Juan Water Commission?

23   A.   Yes, it is.

24   Q.   And actually I believe Exhibit A is what you

25 termed a curriculum vitae and then Exhibit B is a

1   resume. Is that correct?

2   A.   Yes, it is.

3   Q.   Do you have any changes to make to either of

4   those documents?

5   A.   No, I do not.

6   Q.   And did you also prepare and prefile any

7   written technical testimony?

8   A.   Yes, I did.

9   Q.   And is your written direct found at San Juan

10 Water Commission Exhibit C to its NOI?

11   A.   Yes.

12   Q.   And is your written rebuttal found at Exhibit

13 D to San Juan Water Commission's NOI?

14   A.   Yes.

15   Q.   And do you have any corrections or additions

16 to make to your written testimony?

17   A.   No, I do not.

18   Q.   Will you be making any clarifications or

19 explaining any changes of position of the Water

20 Commission during your testimony today?

21   A.   Yes, I will.

22   Q.   Do you adopt your prefiled written testimony,

23 with the modifications you will verbally make today, as

24 your sworn testimony in this hearing?

25   A.   Yes, I do.

1   Q.   Mr. Nylander, could you please give the

2   Commission a brief overview of the topics you will

3   address during your oral testimony today?

4   A.   Yes.

5   In general, my filed testimony and exhibits

6   discussed Department proposed changes at Section

7   20.6.4.410(F), that's the temporary standards -- so I

8   have a couple of fours in there -- the temporary

9   standards. Also, 26.4.12.H regarding compliance with

10   the proposed temporary standard.

11   Then 20.6.4.97 NMAC regarding the Department's

12   ephemeral water -- waters proposal. And then, finally,

13   Section 20.6.4.101 through 503 NMAC, the Department's

14   classified water proposal regarding the upgrade from

15   secondary contact recreation to primary contact

16   recreation on nine surface water segments.

17   And I would like to summarize these four

18   topical areas briefly one at a time.

19   Q.   Okay.

20   A.   Regarding the proposal to add new language

21   creating a temporary standard, following the

22   Department's originally proposed language in the

23   June 25th, 2014, petition, the Department issued a

24   revised petition in August of this year to amend their

25   proposed language and issued it to the triennial review

1 parties.

2   This was done after parties had already filed

3 their direct and rebuttal testimony on the June 25th,

4 2014, version and on their original proposed language.

5   In addition, EPA has recently published their

6 final rule on a water quality standards variance on

7 August 21st, 2015.

8   I have carefully reviewed these documents, and

9 as stated in my filed testimony, San Juan does not --

10 does, in fact, support the concept of a temporary

11 standard for adoption by this Commission.

12   Q.   Mr. Nylander, can you -- you mentioned just

13 now that you have had an opportunity to review the

14 Department's revised petition and you've also mentioned

15 the issuance of the new EPA final rule.

16   Have you had an opportunity to digest all of

17 that and compare it with the San Juan Water Commission's

18 previous proposed modifications, and do you have any

19 general thoughts about how the new EPA rule and the

20 changes to the Department's petition impacts the water

21 Commission's position?

22   A.   Yes. I did compare the NMED's proposed

23 language for temporary standard, their latest version,

24 with the new EPA final rule, as well as with the San

25 Juan Water Commission's proposed language that was part

1 of my rebuttal testimony prefiled in this case. So I've

2 looked at all three of them in comparison.

3   Q.   Mr. Nylander, can you provide for this

4 Commission or describe for them some of the differences

5 between the San Juan Water Commission's proposed

6 modifications to the Bureau's proposal and give just a

7 brief synopsis of any issues that there might be

8 remaining?

9   A.   The San Juan Water Commission's proposed

10 language that I proposed in my rebuttal testimony

11 provided a definition for temporary standard.

12   This was based on EPA's definition in their

13 draft rule-making document, and we felt that a

14 definition was appropriate, and this is a feature that

15 the Department has not proposed.

16   Additionally, mirroring the final EPA rule,

17 the San Juan Water Commission's proposed language

18 applies the temporary standard to both a designated use

19 and water quality criteria.

20   For some reason, the Department's language

21 regarding the temporary standard does not include

22 applicability to a designated use, and in fact, their

23 proposed language specifically prohibits application to

24 a designated use.

25   This difference is a paramount and significant

1 difference between what San Juan Water Commission has

2 proposed and the Department's proposed language.

3   Q.   Mr. Nylander, sorry to interrupt. I want to

4 make sure we don't lose that thought.

5   Can you explain why the San Juan Water

6 Commission proposed applying a temporary standard to a

7 designated use in addition to criteria?

8   A.   Yes, I can.

9   Primarily, I included the designated use in

10 the San Juan Water Commission testimony and the proposed

11 language because EPA's proposed and final water quality

12 standards variance rule includes applicability to both

13 the use and a criteria.

14   EPA also added applicability to a permittee or

15 permittees in their rule, which I also included in the

16 San Juan Water Commission language.

17   You have to remember that a water quality

18 standard is comprised of two elements: a designated use

19 and then a water quality criteria to protect that use.

20   And when you think about these two pieces, the

21 designated use and criteria to protect the use, it seems

22 fitting that this should be part of the temporary

23 standard language.

24   Furthermore, the Commission's definition of

25 criteria published in the water quality standards is --

1   and I quote, "Elements of state water quality standards

2   expressed as constituent concentration levels or

3   narrative statements representing a quality of water

4   that supports a use. When criteria are met, water

5   quality will be -- will protect the designated use."

6   And that's the end of the definition.

7   The corollary to this last sentence is that

8   the Commission's definition would infer that when

9   criteria are not met, water quality will not protect the

10   designated use; and in my mind, if criteria are not met,

11   the use is not fully protected.

12   This is why the temporary standard language

13   should apply to both a use and criteria, as provided by

14   EPA in their final rule for a water quality variance.

15   Because the EPA rule also applies to permittee

16   or permittees, that applicability should also be

17   included in any temporary standard adopted by the

18   Commission.

19   EPA's rule allows application to multiple

20   permittees if they are in -- even if they are in

21   different basins if the problem they are having with

22   water quality use attainability is similar and -- and

23   they can be listed all together for the benefit of

24   regulating them as a group.

25   I think it's important that permittees be

1 added to the temporary standard proposal before the

2 Commission.

3 I think the San Juan Water Commission's

4 proposed language contained in my rebuttal testimony at

5 this point is preferable to the Department's proposed

6 language.

7 Q. And with regard to that last statement,

8 Mr. Nylander, about the Water Commission's proposed

9 language being preferable, you're speaking of the

10 inclusion or the applicability of the temporary standard

11 to a designated use. Is that correct?

12 A. Yes. Yes, I am.

13 In fact, just to cite the new final rule at

14 131.14(a), "Applicability," it says "A water quality

15 standard variance may be adopted for a permittee or

16 permittees or water body/waterbody segments, but only

17 applies to the permittees or water body/waterbody

18 segment specified in the water quality standards

19 variance."

20 So their applicability addresses both

21 designated use and permittees.

22 Q. Thank you.

23 I would like to move on now, Mr. Nylander, if

24 we may, to other proposed language that the Water

25 Commission had presented in your rebuttal testimony,

1 which the Water Commission would now like to withdraw.

2   A.   Well, the last two areas of comparison relate

3 to the name that we want to label the proposed new water

4 quality standard rule with.

5   San Juan Water Commission had proposed that

6 the Commission adopt language regarding a water quality

7 variance similar to the title of the EPA rule, under the

8 Commission's statutory authority to grant variances in

9 74-6-4.H of the statute.

10   The Department has rejected the use of the

11 word "variance" and instead preferred the term

12 "temporary standard."

13   And although historically since 2005, the San

14 Juan Water Commission has proposed a variance from the

15 water quality standard rule, and has taken that position

16 -- and has taken that position in this 2013 triennial

17 hearing, I think the San Juan Water Commission, in the

18 spirit of compromise, is willing to accept the term

19 "temporary standard."

20   That's the last outstanding issue between San

21 Juan Water Commission's proposal regarding temporary

22 standards and that proposed by the Department, is what

23 to call the required documentation to be submitted with

24 a petition for a temporary standard.

25   The Department, using the term -- is using the

1 term "work plan," while San Juan Water Commission

2 referred the term "documentation"; largely, because

3 EPA's final rule does not require a work plan but does

4 require documentation.

5   Again, at this juncture, regardless of what

6 you call the documentation, it will be required by the

7 Department and the Commission and EPA to be approved in

8 any case. Thus, San Juan Water Commission has no

9 objection to the term "work plan."

10   Q. And, Mr. Nylander, in addition to the no

11 longer objecting to the term "work plan," the Water

12 Commission also previously objected to the requirement

13 of UAA-level or UAA-type documentation. Is that

14 correct?

15   A. That is correct.

16   Q. And what is the Water Commission's current

17 position on that issue?

18   A. Before I answer that, may I just make one more

19 comment on the work plan topic?

20   Q. Sorry. I didn't mean to interrupt your flow

21 there.

22   A. That's all right.

23   Just one comment on the Department's revised

24 petition and language on the temporary standard.

25   Reading through on page four, there are items

1 -- 5 talks about preparing a work plan in accordance

2 with paragraph 4, and then it goes on to say, on line

3 22, "The work plan shall identify the factor or factors

4 listed in 40 CFR 131.10(g) or Subparagraph

5 20.6.4.10(F)(1)(a) NMAC affecting attainment of the

6 standard that will be analyzed and the timeline for

7 proposed actions to be taken to achieve the uses

8 attainable over the term of the temporary standard,

9 including baseline water quality, and any

10 investigations, projects, facility modifications,

11 monitoring, or other measures necessary to achieve

12 compliance with the original standard."

13   The point I want to make about that language

14 is the proposed language would infer that a work plan

15 would basically do two things: it would identify

16 factors that would be analyzed and it would also list

17 the timeline for proposed action in all of the different

18 projects and so forth.

19   This seems to me to be a little bit out of

20 synch, in that it is -- it is apparent to me that a

21 petitioner for a temporary standard would have to have

22 done the analysis on the water segment that they are

23 interested in and actually have done a UAA study to show

24 that a use can't be attained before they require or

25 request a temporary standard.

1   And so I was a little confused about this

2   language because it seemed to infer that you're still

3   going to be analyzing the water quality to see if a use

4   is attainable, and yet you are already going to

5   premeditate all the proposed actions you're going to

6   take to solve the problem.

7   So I think that paragraph is confusing and

8   perhaps during the course of the hearing that could be

9   clarified by the Department.

10   Now, to get back to your question, I do have

11   two or three really quick final points on the temporary

12   standard proposal.

13   Yes, I do have the admission that San Juan

14   Water Commission now understands that a petition for a

15   temporary standard affecting a Clean Water Act 101(a)(2)

16   use, that's the fishable/swimmable uses, would indeed

17   require preparation of a use attainability analysis,

18   UAA, to demonstrate non-attainability of a use pursuant

19   to one or more factors listed in 40 CFR 131.10(g).

20   Q.   Excuse me, Mr. Nylander. What is the basis

21   for that new understanding?

22   A.   It's actually looking directly at the EPA

23   final rule and realizing that that is the controlling

24   rule, that EPA can't approve a petition unless that's

25   been done. So if it's a 101(a)(2) use, so it appears to

1   me that that's going to have to be work that you have to

2   do.

3   And previously in my testimony, I argued

4   against the requirement for a UAA, or UAA-like

5   documentation, and lately I've come to appreciate that

6   the performance of a UAA is unavoidable, and to enable a

7   successful petition to EPA for a water quality standard

8   variance and for a temporary standard with the

9   Commission, and thus San Juan Water Commission rescinds

10   my previous testimony with regard to the need to submit

11   a UAA.

12   Then, finally, if you work backward from the

13   EPA-approval requirements in their rule, which is,

14   again, the controlling document, any adoption of

15   language by the Commission regarding a temporary

16   standard, provided it has all the elements that I've

17   just mentioned, should result in a rational pathway for

18   a petitioner in New Mexico to use and obtain approval

19   from EPA of a water quality variance.

20   And it might be -- just a thought, but if --

21   if the difference between the Department's language and

22   the San Juan Water Commission's language is confusing,

23   maybe they ought to consider just adopting the EPA final

24   rule language, as modified, to fit the needs of New

25   Mexico.

1   MR. CHAVEZ: Ms. McCaleb --

2   MS. McCALEB: Yes.

3   MR. CHAVEZ: -- sorry to interrupt.

4   It's 4:45. So if you don't mind, let's go

5   ahead and -- for your portion, wrap up so we can take

6   some public comment.

7   MS. McCALEB: Mr. Hearing Examiner, I believe

8   that this is -- we were just getting ready to move to

9   another topic, so it's fine to break right here.

10   MR. CHAVEZ: It's a good time?

11   MS. McCALEB: Yes, sir.

12   MR. CHAVEZ: Thank you.

13   We'll continue with you guys starting at 9:00

14 AM tomorrow.

15   MS. McCALEB: Thank you.

16   MR. CHAVEZ: Thank you very much.

17   So at this time, Mr. Chair, Members of the

18 Commission, what I'd like to do is ask if there is

19 anybody in the crowd who would like to give public

20 comment?

21   Have you signed in?

22   MS. FISHER: Yes.

23   MR. CHAVEZ: Okay. Come forward. Have a seat

24 so you can get sworn in.

25   (Oath administered to Kristina G. Fisher.)

1   MS. TOWNSEND: State your name.

2   MS. FISHER: Kristina Fisher.

3   MR. VIGIL: I'm sorry, what was that?

4   MS. FISHER: Kristina Fisher.

5   MR. CHAVEZ: Please proceed.

6   KRISTINA G. FISHER

7   after having been first duly sworn or affirmed,

8   provided public comment as follows:

9   PUBLIC COMMENT

10   MS. FISHER: Thank you for allowing public

11   comment on this.

12   I'm Kristina Fisher. I live here in Santa Fe,

13   and I'm currently the board president of the Santa Fe

14   Watershed Association.

15   I'd like to comment briefly on two points.

16   The first is the aluminum water standard. My

17   understanding is that the New Mexico standard for

18   aluminum is the weakest in the nation, and I would

19   encourage the Commission to consider going to the EPA's

20   recommended standard. I think that would be a lot

21   stronger and a lot more protective. It's very important

22   for fish and aquatic wildlife that aluminum levels be

23   kept low.

24   My other piece is on the temporary standards

25   proposal that's being discussed.

1   Although this is called a temporary standard,

2   it does not include a time limit requirement. So my

3   concern is that the temporary standard could easily

4   become permanent, and if it's weaker than the permanent

5   standard, then that's a real problem.

6   My other concern is that the temporary

7   standard does not require a public hearing before that

8   goes into place, and I think that that should be a part

9   of it.

10   As you all know, New Mexico's scarcest and

11 most precious resource is our water, and so I think we

12 should have as protective standards as possible for the

13 wildlife and human communities that depend on it.

14   Thank you.

15   MR. CHAVEZ: Thank you very much. Thanks for

16 coming.

17   Is there anyone else at this time that would

18 like to present public comment?

19   Seeing none, Mr. Chair, Members of the

20 Commission, I think that will conclude this session for

21 today, and we will be continuing tomorrow at 9:00 AM.

22   Yes.

23   MR. DOMINGUEZ: Mr. Hearing Officer, if you

24 wanted to kind of line out how things will flow

25 tomorrow, just so that people can kind of be prepared

1   for the succession.

2   MR. CHAVEZ: Sure, Mr. Chairman.

3   So tomorrow we will resume with San Juan and

4   their presentation, obviously go through cross-

5   examination and such. We will move then towards Amigos

6   Bravos with their case, and they have their expert

7   tomorrow that will be here. At the conclusion of their

8   case, we will go to Chevron. Once Chevron is concluded,

9   because we put them after Amigos specifically, and so

10   once that's done, we will go to rebuttal in reverse

11   order of any, and essentially that would conclude the

12   hearing.

13   So does anybody have any questions on that?

14   Seeing none, we'll see everybody at 9:00 AM.

15   Thank you.

16   (Proceedings in recess at 4:50 PM.)

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1 STATE OF NEW MEXICO)

2   )ss.

3 COUNTY OF BERNALILLO)

4   I, Kathy Townsend, the officer before whom the

5 foregoing hearing was taken, do hereby certify that the

6 witnesses whose testimony appears in the foregoing

7 transcript were duly sworn by me; that I personally

8 recorded the testimony by machine shorthand; that said

9 transcript is a true record of the testimony given by

10 said witnesses; that I am neither attorney nor counsel

11 for, nor related to or employed by any of the parties to

12 the action in which this matter is taken, and that I am

13 not a relative or employee of any attorney or counsel

14 employed by the parties hereto or financially interested

15 in the action.

16

17

18   _____

                               NOTARY PUBLIC
19   CCR License Number: 23
                               Expires: 12/31/15
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   My Commission Expires: 9/12/2017
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