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RECEIVED
JUN 19 2006
DEPARTMENT OF
WATER RESOURCES

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF DISTRIBUTION OF WATER TO WATER RIGHT NOS. 36-02356A, 36-07210 AND 36-07427 and IN THE MATTER OF DISTRIBUTION OF WATER TO WATER RIGHTS NOS. 36-04013A, 36-04013B AND 36-07148 (SNAKE RIVER FARM); AND TO WATER RIGHTS NOS. 36-07083 AND 36-07568 (CRYSTAL SPRINGS FARM)	**AFFIDAVIT OF BRADLEY V. SNEED IN SUPPORT OF IGWA'S POST-HEARING MEMORANDUM REGARDING DIRECTOR'S ORDER APPROVING IGWA'S 2005 SUBSTITUTE CURTAILMENTS** **(BLUE LAKES DELIVERY CALL)** **(CLEAR SPRINGS DELIVERY CALL, SNAKE RIVER FARM)**

STATE OF IDAHO)
) ss.
COUNTY OF ADA)

Bradley V. Sneed, being first duly sworn on oath, deposes and hereby states as follows:

1. I am one of the attorneys of record for Idaho Ground Water Appropriators, Inc. ("IGWA"), in the above-captioned matters before the Idaho Department of Water Resources (the "Department").

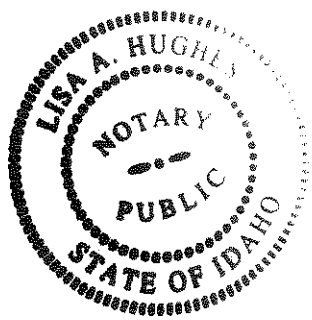
2. On June 5, 2006, the Department, with Director Karl J. Dreher sitting as hearing officer, conducted a hearing in the above-captioned matters at the Department's offices located at 322 East Front Street, Boise, Idaho.
3. During that June 5, 2006, hearing, testimony was offered by Cindy Yenter, Tim Luke, Dr. Allan Wylie, John Rex Minchey, Dean Stevenson and Dr. Charles M. Brendecke. The entire substance of the June 5, 2006, hearing, including the testimony of all of the above witnesses, was electronically recorded by Department staff on June 5, 2006.
4. Shortly after the June 5, 2006, hearing, I contacted Phillip Rassier (counsel for the Department) and requested a copy of the electronic recording of the June 5, 2006, hearing. After receiving my request, Mr. Rassier delivered a copy of the electronic transcript of the June 5, 2006, hearing to my office by electronic mail.
5. Shortly thereafter, I caused the electronic transcript of the June 5, 2006, hearing to be delivered to Accurate Court Reporting, Inc. for transcription. Accurate Court Reporting, Inc. sent me the final transcript of the June 5, 2006, hearing on or about June 15, 2006.
6. Attached hereto as Exhibit A is a true and correct copy of the excerpts, which were cited by IGWA in its Post-Hearing Memorandum, from the transcript of the June 5, 2006, hearing before the Department that was prepared by Accurate Court Reporting, Inc.

DATED this 19th day of June, 2006.

Brad V. Sneed

SUBSCRIBED AND SWORN TO before me this ____ day of June, 2006.

[seal]



Notary Public for Idaho
Residing at Boise Id
My commission expires 3.22.2007

CERTIFICATE OF SERVICE

I hereby certify that on this 19th day of June 2006, I served a true and correct copy of the foregoing by delivering the same to each of the following individuals by the method indicated below, addressed as follows:

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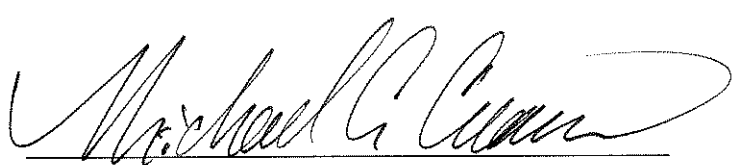

Jeffrey C. Fereday
Michael C. Creamer
Brad V. Sneed

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF DISTRIBUTION OF WATER)
TO WATER RIGHT NOS. 36-02356A, 36-07210)
AND 36-07427 (BLUE LAKES),)
)
and)
)
IN THE MATTER OF DISTRIBUTION OF WATER)
TO WATER RIGHTS NOS. 36-04013A, 36-04013B)
AND 36-07148 (SNAKE RIVER FARM); AND)
36-07568 (CRYSTAL SPRINGS FARM).)
)

TRANSCRIPT OF HEARING

JUNE 5, 2006

BOISE, IDAHO

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EXHIBIT

TAKEN

A

COPY

Prepared for

Brad V. Speed

Reported By

Jeanne M. Hirmer, CSR, RPR

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

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AND 36-07148 (SNAKE RIVER FARM); AND)
TO WATER RIGHTS NOS. 36-07083 AND)
36-07568 (CRYSTAL SPRINGS FARM).)
)

TRANSCRIPT OF HEARING
JUNE 5, 2006
BOISE, IDAHO

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BOISE, IDAHO, MONDAY, JUNE 5, 2006, 9:30 A.M.

MR. DREHER: Good morning. I'm Karl Dreher, Director of the Idaho Department of Water Resources, and I'll be presiding over the hearing this morning. The hearing is being conducted at the main office of the Idaho Department of Water Resources, 322 East Front Street, Boise, Idaho, on June 5th, at about 9:30 a.m.

Some other Department staff and representatives are present. Mr. Tim Luke, Dr. Allan Wylie, and Ms. Cindy Yenter are Department staff here today. Also, with me is Mr. Phil Rassier, who's the principle Deputy Attorney General serving as counsel for the Department; Chris Bromley, another Deputy Attorney General assigned for the Department; and an extern that's joining us for the summer, Will Fletcher, who's sitting in the back.

The purpose of this hearing this morning is to receive evidence and testimony relative to whether I should modify my prior Orders approving the Idaho Groundwater Appropriators' 2005 substitute curtailments in response to both the Blue Lakes delivery call and the Clear Springs delivery call for its Snake River farm facilities. Those Orders were issued on April 29th, 2006.

And for the limited purpose of considering

whether those Orders should be amended or revised, we have brought both of these matters together. However, they remain separate contested cases, and the record of this hearing will be incorporated into both those matters.

The hearing is being conducted in compliance with applicable provisions of Chapters 2 and 17 of Title 42, Idaho Code, as well as Chapter 52, Title 67, Idaho Code, and the Department's rules and procedures.

Just joining us now is Mr. Clive Strong, who is the Deputy Attorney General, Chief of the Natural Resources Section in the Attorney General's Office.

With that, I would ask that the parties make their appearance, beginning with Mr. Fereday.

MR. FEREDAY: Jeff Fereday, Mr. Director, on behalf of North Snake and Magic Valley Groundwater Districts; also, the Idaho Groundwater Appropriators here today. And with me at counsel table is Dr. Charles Brendecke of Hydrosphere Resource Consultants from Boulder, Colorado. Also, joining me is my associate, Brad Sneed.

MR. DREHER: Okay.

MR. STEENSON: Dan Steenson representing Blue Lakes Trout.

MR. SIMPSON: John Simpson representing Clear Springs Foods.

1 that they are charging Northside.
2 **Q. So the effect of that is that -- see if you**
3 **agree with me. The effect of that is if a person wants a**
4 **delivery of a hundred acre-feet at a certain point in the**
5 **canal system there must be 130 acre-feet diverted at Milner**
6 **into the canal to make that delivery.**
7 **Is that an accurate description of how that**
8 **works?**
9 A. It would be close. But, there again, it's not
10 something that I'm -- you know, that I'm delivering on a
11 day-to-day basis. But yes, that would be close. That
12 would actually be, uh, more a percent of amount diverted
13 rather than amount delivered.
14 **Q. Ms. Yenter, would you agree that once a canal**
15 **system has been charged any acre-foot of water diverted,**
16 **whether it's natural flow or storage, experiences**
17 **essentially the same carriage loss as any other acre-foot,**
18 **that there's no way to distinguish between the two?**
19 A. Could you repeat that, please?
20 **Q. Once a canal system has been charged and the**
21 **canal is up and running, would you agree that carriage**
22 **losses are experienced across the board by the commingled**
23 **waters in that canal system; that some acre-feet or some**
24 **diversions don't -- experience a different carriage loss**
25 **than others?**

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1 A. I don't know that I can say that, because I
2 think it depends on the system that you're talking about.
3 And I don't know the Northside system, for instance, that
4 well to really answer that question.
5 **Q. Would you know whether the canal system itself**
6 **discriminates between storage diversions and natural flow**
7 **diversions? Is it different water? It's not, is it?**
8 A. You mean the physical canal?
9 **Q. That's right.**
10 A. You're referring to the physical canal?
11 **Q. That's right.**
12 A. Well, of course. The physical canal, no,
13 would not know the difference.
14 **Q. And the water in the canal is commingled, is**
15 **it not, regardless of whose account it might have been**
16 **diverted for?**
17 A. That is my understanding.
18 **Q. With regard to the 30 percent surcharge or**
19 **carriage loss charge, is it your understanding that that,**
20 **in effect, represents the calculation of 30 percent**
21 **conveyance loss in the canal? Is that another way of**
22 **saying it?**
23 A. I don't know. Again, I'm not administering
24 that loss so I really can't answer to it.
25 **Q. Are you familiar with carriage losses in a**

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1 **canal? Have you ever seen them measured or described?**
2 A. Of course I am.
3 **Q. Would you say that a 30 percent loss in a**
4 **canal system on the Eastern Snake Plain is within the range**
5 **of plausibility?**
6 A. Yes.
7 **Q. Would you say that it's a reasonable amount of**
8 **loss?**
9 A. I don't know if I can answer that. I -- it
10 appears to be reasonable, but it would depend on the system
11 we're talking about.
12 **Q. Have you seen losses that are higher than**
13 **30 percent?**
14 A. Not on the ESPA.
15 **Q. Are you aware of any information suggesting**
16 **that this 9400 acre-feet of calculated losses that we have**
17 **been discussing here was used or consumed on any cropland**
18 **or in any other manner?**
19 A. The only information I've seen is what I
20 received from the ESPA.
21 **Q. So I take it the answer is "no"?**
22 A. The answer to that would be "I have seen no
23 evidence."
24 **Q. Okay. Have you seen any evidence that it**
25 **might have been spilled back to the river?**

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1 A. I've seen no evidence, but I don't -- it's not
2 something that I check for.
3 **Q. You don't measure spills?**
4 A. I am not involved in the administration of
5 Northside Canal Company.
6 **Q. Because that's in another water district,**
7 **isn't it?**
8 A. Correct.
9 **Q. Are you aware of any information suggesting**
10 **that this 9400 acre-feet did not seep into the aquifer?**
11 A. I am just simply not aware of any information
12 regarding the 9400 acre-feet.
13 **Q. Now, in its Orders the Department did not give**
14 **the groundwater districts a recharge credit for this 9400**
15 **acre-feet, did it?**
16 A. That's correct.
17 **Q. Did you advise the Department that no credit**
18 **should be given?**
19 A. No. I did not make that decision.
20 **Q. Would you agree that 9400 acre-feet is a**
21 **significant amount of water in the context of the**
22 **groundwater districts' mitigation efforts?**
23 A. Yes, it is a significant amount.
24 **Q. With regard to the voluntary curtailments,**
25 **sometimes called "reduction acres," I would like to ask you**

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1 a few questions.
2 **With regard to Exhibit 1, you note that it**
3 **contains preliminary conclusions. Do you note that?**
4 A. I know that it is simply called "conclusions."
5 **Q. Did you consider these conclusions to be**
6 **final, or were they subject to any further analysis?**
7 A. These conclusions just represented the
8 determination of my analysis which were passed -- passed on
9 to the Director for a decision.
10 **Q. At the bottom of the first paragraph of**
11 **Exhibit 1 is a sentence that says that this is a summary of**
12 **work completed, et cetera, and preliminary conclusions.**
13 **Now, I just want to make sure that this is not**
14 **a preliminary document.**
15 A. Uh, you know, I see the, uh -- I see the
16 disconnect here. That is probably a word that should have
17 been removed from the memo, because I did not, in fact,
18 make any preliminary conclusions.
19 **Q. You wrote this memo, though, right?**
20 A. I did. I did. And that -- that word in that
21 first paragraph probably should have been removed.
22 **Q. So these are your final conclusions?**
23 A. This is my final analysis.
24 **Q. Is it correct to say that additional**
25 **information could change that analysis?**

1 A. Possibly, yes.
2 **Q. Have you done any further investigation of**
3 **these matters since you wrote this memo, Exhibit 1?**
4 A. I would have to say no.
5 **Q. Now, there were about 21,000 acres of**
6 **voluntary curtailments or reductions that were submitted by**
7 **the groundwater districts. Do you recall that?**
8 A. Yes.
9 **Q. And only about one-third or some -- i think it**
10 **was 6885 acres or so were recognized in the Director's**
11 **Order. Do you recall that?**
12 A. Correct.
13 **Q. So we're talking about perhaps one-third --**
14 **around one-third of what was submitted was found qualified.**
15 **Did you personally inspect each of these**
16 **21,000 some odd acres?**
17 A. I did not personally inspect each acre. Uh,
18 myself and up to a half a dozen -- well, actually, it was
19 more like three or four of us. Myself and three or four
20 other staff inspected probably 95 percent of acres which we
21 initially determined to be eligible.
22 **Q. Did you say 95 percent?**
23 A. Of the eli- -- of what we determined to be
24 eligible. We did field verify the eligibility.
25 **Q. How did you determine them to be eligible**

1 **before you visited them?**
2 A. A series of in-office analysis which included
3 comparison to aerial images, comparison to water rights,
4 um, comparison to past set-aside databases, um, comparison
5 to canal company share -- you know, share location shape
6 files, um, just comparison to all data that we had
7 available in our office to see if they met the criteria set
8 forth in the, uh -- in the Order of last year.
9 **Q. An acre was deemed ineligible for voluntary**
10 **curtailment credit unless it was shown to have been**
11 **groundwater irrigated in 2004, or shown to be in a**
12 **mitigation plan in that year; isn't that correct?**
13 A. Correct. It was shown to be . . .
14 **Q. In a mitigation plan or to have been irrigated**
15 **with groundwater in 2004?**
16 A. Yes. Otherwise, it would have been
17 ineligible.
18 **Q. What was the rationale for the Department's**
19 **decision not to give curtailment credit to the groundwater**
20 **users for those acres unless they had been irrigated with**
21 **groundwater or in a mitigation plan in 2004?**
22 A. Well, again, I didn't write that decision.
23 That decision came from the Director's Order. But it is my
24 understanding that we were looking for a, uh -- an actual
25 reduction of use -- of groundwater use.

1 **Q. Now, is it true that you did not look at**
2 **groundwater irrigation in 2003, 2002, or 2001, in making**
3 **this analysis?**
4 A. For the most part, yes. Well, we did not look
5 in the initial -- when we made the initial eligibility cut,
6 no, we did not go back to 2003 in making the analysis.
7 **Q. Okay. I note that on Attachment A to**
8 **Exhibit 1 we've got some eligibility code descriptions.**
9 **And No. 5, which accounted for some 5200 acres of**
10 **disqualification, notes "not irrigated in 2004, not**
11 **irrigated in 2005, not eligible."**
12 **Did you write that?**
13 A. Yes.
14 **Q. Now, "not irrigated in 2005," it was not**
15 **supposed to not be irrigated in 2005, correct?**
16 A. That's correct.
17 **Q. So again, this is really just that it was not**
18 **groundwater irrigated in 2004. And therefore, even though**
19 **it's dried up now, it cannot be eligible. Is that how that**
20 **works?**
21 A. Correct. That was an eligibility description;
22 in this case, a noneligibility description.
23 **Q. Do you know who directed that it be the policy**
24 **of the Department that the land must have been irrigated in**
25 **2004 with groundwater to be eligible for curtailment**

1 credit?
2 A. Who directed it?
3 **Q. Yes. Where did that policy come from?**
4 A. I don't know where the policy came from. The
5 Director included that criteria in his Order.
6 **Q. Do you know whether the acres that the**
7 **groundwater districts dried up, in any year going back**
8 **before 2004, benefit the reach gains in the**
9 **Devil's Washbowl reach, or is that something beyond**
10 **your understanding?**
11 A. Well, it's something that I don't perform the
12 analysis on.
13 **Q. Isn't it true that those groundwater rights**
14 **which were not pumped in 2004, and, therefore, their nonuse**
15 **in 2005 was not counted, still could be irrigated or pumped**
16 **now or in future years?**
17 A. Under certain conditions, yes.
18 **Q. And those conditions would include not being**
19 **under a curtailment Order, for example?**
20 A. For example. Not being forfeited, for
21 example.
22 **Q. Do you know of any forfeitures amongst any of**
23 **the groundwater acres that were submitted for voluntary**
24 **curtailment?**
25 A. I wasn't looking for forfeitures. I didn't

1 identify any.
2 **Q. Okay. And groundwater rights have not been**
3 **forfeited, have they, just because they haven't been pumped**
4 **for a couple of years? That alone won't cause them to be**
5 **forfeited, correct?**
6 A. Correct.
7 **Q. Now, if it were the objective to increase**
8 **reach gains in the spring complex of serving Blue Lakes and**
9 **Clear Springs, if that were the objective, wouldn't it be**
10 **important that a groundwater right be turned off and kept**
11 **off for a number of years? Wouldn't that be better than**
12 **just a one-year turnoff?**
13 A. Well, again, you're getting into an area
14 that's really not my expertise. I mean, I have certain
15 intuitive feelings about this, but that's not my area of
16 expertise. You've asked the wrong person.
17 **Q. So that's an "I don't know"?**
18 A. "That's an I don't know."
19 **Q. Okay. Now, with regard to administering water**
20 **rights and the effect of that administration on the senior**
21 **who needs the water, let's take a hypothetical here. If**
22 **you were to curtail on a surface stream a junior's**
23 **headgate, you would expect, would you not, that the water**
24 **that he was foregoing would immediately or nearly**
25 **immediately be available to a downstream senior making the**

1 **call; isn't that right?**
2 A. That's correct.
3 **Q. When you curtail a groundwater well, the same**
4 **is not true; is that correct, in general?**
5 A. "In general."
6 **Q. And it could take months or even years before**
7 **the curtailed amount could show up, if you will, to help a**
8 **senior somewhere else, in the groundwater context; isn't**
9 **that correct?**
10 A. Correct. There is -- it is expected that
11 there is a lag time -- an unknown lag time in the aquifer.
12 **Q. I'd like you to refer to Exhibit 4.**
13 **I'll represent to you that this is information**
14 **provided by the North Snake Groundwater District for the**
15 **years 2002, 2003, and 2004.**
16 **Do you recognize any of the information on**
17 **this?**
18 A. Yes, I do.
19 **Q. Okay. Do you recognize that this is a list of**
20 **conversions that this district carried out in those three**
21 **years?**
22 A. Yes.
23 **Q. Isn't it possible that some lands irrigated**
24 **with surface water in this '02 to '04 period could have**
25 **been receiving the surface water under the North Snake**

1 **Conversion Program in that period? Is that possible?**
2 A. That's possible. Yes, it's possible.
3 **Q. Did you evaluate this possibility in deciding**
4 **to disqualify a particular acre from the Curtailment**
5 **Program, because it was only being irrigated with surface**
6 **water in 2004, not groundwater?**
7 A. Uh, clarify exactly what you're asking me
8 there, please.
9 **Q. Did you evaluate the possibility whether a**
10 **particular acre that you were disqualifying was because it**
11 **was not irrigated with groundwater in 2004?**
12 A. And you're speaking of a reduction acre rather
13 than a conversion acre?
14 **Q. Correct. A reduction acre --**
15 A. Okay.
16 **Q. -- actually was in a conversion project that,**
17 **arguably, hadn't been listed -- potentially had not been**
18 **listed by the groundwater user. Did you evaluate that;**
19 **whether there was any disconnect?**
20 A. Uh, I did evaluate the connection between
21 reduction acres and conversion projects. There were a few
22 reduction acres that I disqualified because they were part
23 of an active conversion project. Or it was my
24 understanding that they -- well, they were -- they were to
25 be pumped from the same well that was part of an active

1 conversion project and, uh, there was that overlap.
2 I didn't evaluate the fact that there might
3 have been an unlisted conversion project if that's -- if
4 I've answered your question -- if I've understood your
5 question?
6 **Q. Yes, that's right. You say you disqualified**
7 **an acre because it was part of an active conversion**
8 **project. The point there is you would not want to count it**
9 **twice?**
10 A. Exactly.
11 **Q. In category 6 --**
12 A. You're back on reduction --
13 **Q. -- back on the Exhibit 1; that is, eligibility**
14 **Code 6.**
15 A. Uh-huh.
16 **Q. It states that it's irrigated in 2005 with**
17 **surface water, not part of a conversion project, not**
18 **eligible. And this indicates, does it not, that there were**
19 **some 3400 acres of submitted lands that were not given any**
20 **mitigation credit, because even though it was irrigated**
21 **with surface water in '05, the lands were not formally part**
22 **of any conversion project?**
23 **Is that an accurate description of that**
24 **disqualification code?**
25 A. Ummm, partly. Um, that was just referring to

1 those lands which we disqualified, because there was a
2 supplemental source of water which was going to be
3 continued to be used even though groundwater use was partly
4 or entirely eliminated.
5 **Q. When you say "a supplemental source," do you**
6 **mean a supplemental groundwater source?**
7 A. No. In this -- in this case -- and I believe
8 this question has come up previously, and my answer now is
9 the same as it was then. In all these documents I use the
10 term "supplemental" not referring to the primacy in any
11 particular right, but just in cases where there are two
12 sources of water that may be used to irrigate the same
13 land.
14 So in this case the surface water being a, uh,
15 additional source of water that could be used to irrigate
16 groundwater acres. They may have reduced their groundwater
17 use, but they continue to irrigate all the acres with their
18 other water source and, uh, weren't given credit for a
19 conversion project so the acres were not eligible. We
20 basically decided not to extend credit to multi-source
21 acres unless the acres were dried up.
22 **Q. Is this to say, then, Ms. Yenter, that these**
23 **lands were not listed in a conversion project, and even**
24 **though they were irrigated with surface water and not with**
25 **groundwater they were, therefore, ineligible? Is that an**

1 **accurate way of saying this?**
2 A. Um, yes. Yes. Because that is -- that was --
3 another part of that was that they were not part of the
4 conversion project so, therefore, we could not give them
5 credit for that. But, yes, that would be as accurate as
6 you could probably get it.
7 **Q. So in that case, then, is it accurate to say**
8 **that an individual landowner might forego groundwater**
9 **pumping and, instead, use her Northside shares, for**
10 **example, on her property? And that would, would it not,**
11 **reduce groundwater pumping from the aquifer?**
12 A. That is correct. It would.
13 **Q. But you decided not to give it credit as a**
14 **conversion because it was not listed as part of the**
15 **conversion program?**
16 A. No. The reason we didn't give it credit is
17 because in most of those cases there simply was not enough
18 background data to determine a reduction in groundwater
19 use.
20 **Q. Is it possible that there could be more**
21 **information gathered up on those situations, or do you feel**
22 **like you have completely exhausted all the available data**
23 **on those questions?**
24 A. Oh, no. We could get to the point where that
25 could actually be done, where there are just some data gaps

1 that are being closed, that -- actually, they are being
2 closed, but -- as we get more data that is likely possible.
3 **Q. Have the groundwater districts, or, in this**
4 **case, North Snake Groundwater District, been forthcoming in**
5 **providing data when asked?**
6 A. Oh, yes.
7 **Q. What would the groundwater districts have to**
8 **do to qualify these -- what I'll call -- "do-it-yourself**
9 **conversion lands" for credit?**
10 A. We need a good baseline of groundwater use
11 data. And, uh, you know, we're just -- we're missing
12 enough measurements on some of these particular diversions
13 that -- that we just can't establish a baseline. And so
14 even though we have a current -- a good, current
15 measurement we don't have anything to compare it to. So
16 the more years we get good, solid data, uh, the better
17 position we will be in to document -- document
18 reduction -- actually document.
19 **Q. And I take it you're willing to work with**
20 **North Snake to evaluate that data should they provide it?**
21 A. Oh, yeah.
22 **Q. In 2005, you recall, I'm sure, the unusually**
23 **wet spring, don't you?**
24 A. Yes.
25 **Q. And you're aware that because of this**

1 **available moisture that some crops actually emerged and**
2 **were maturing into June without any irrigation; isn't that**
3 **right?**
4 A. Correct.
5 **Q. And some crops may even have produced a full**
6 **crop without any irrigation that year; isn't that correct?**
7 A. It was possible.
8 **Q. Could you describe how, in making your field**
9 **inspections, you determined whether a crop had received**
10 **irrigation water in those months in 2005?**
11 A. That one did pose us a bit of a -- a bit of a
12 quandary at times. We did have both an early and a late
13 photograph in '05, so we were able to pick up things like
14 early frost. And, um, then it was sometimes just a matter
15 of field investigation to see the type of crop that had
16 been grown and if there was any evidence in the irrigation
17 system. Every -- it was -- a lot of times it was a
18 case-by-case issue. We were cognizant of that, though.
19 **Q. Where it was not clear what did you tend to**
20 **do?**
21 A. Where it was not clear we tended to -- quite
22 honestly, we went with our gut. You know, it was somewhat
23 subjective. And in some cases we would, uh, just give them
24 the benefit of the doubt. I -- it really didn't involve
25 all that many acres. I don't have a number for you,

1 A. I didn't actually ever disqualify any
2 conversions. There were a number that weren't developed.
3 **Q. Okay.**
4 A. There was four or five that weren't developed,
5 but I -- I didn't actually disqualify out of hand any
6 conversions.
7 **Q. Some you disqualified in part, did you not,**
8 **because of your conclusion that there was a supplemental**
9 **well providing groundwater to the property?**
10 A. Well, I'm confused. No. No. Because we
11 wouldn't have -- we wouldn't have disqualified a conversion
12 project. We would have -- we would have -- no. We
13 wouldn't have disqualified a conversion project just
14 because there was a supplemental well. I think that was
15 kind of the point.
16 **Q. Let me rephrase that. You extended less than**
17 **full credit to some conversion projects because of the**
18 **existence of a supplemental well operating on the property;**
19 **isn't that correct?**
20 A. In the final analysis, yes.
21 **Q. Did you evaluate the licenses or decrees of**
22 **each of those supplemental well situations to determine**
23 **whether those wells were, in fact, pumping a supplemental**
24 **groundwater right?**
25 A. We did not evaluate as to primacy. We only

1 though. It strikes me that that didn't involve more
2 than -- well, I don't know, 10 percent or 8 percent. Maybe
3 not even that many. Like I said, I just don't have a good
4 feel for that.
5 **Q. I'd like to ask you some questions now about**
6 **the conversion project in North Snake Groundwater District.**
7 **Refer to your memo, which is Exhibit 2, the January 13,**
8 **2006 memo, please.**
9 **Now, you prepared this as a result of your**
10 **field inspections and other work; did you not?**
11 A. Correct.
12 **Q. Now, I asked you earlier about visiting each**
13 **of the conversion parcels, and you, I think, indicated**
14 **that -- or maybe this was the reduction parcels.**
15 **Let me just ask you: Did you visit each of**
16 **the conversion parcels?**
17 A. I did or an associate did.
18 **Q. So it wasn't a 95 percent, it was a hundred**
19 **percent?**
20 A. Yes. This was a 100 percent reduction.
21 **Q. Now, you determined that a number of the**
22 **proposed conversions were ineligible. You disqualified**
23 **them, correct?**
24 A. The conversions or reductions?
25 **Q. The conversions.**

1 evaluated as to -- well, no, wait. Let me back up. By
2 "supplemental," were you referring to the existence of
3 canal shares? That's really all we investigated was the
4 existence of both the groundwater right and -- and the
5 existence of canal shares on any given parcel.
6 **Q. So, in your view, a well is deemed**
7 **supplemental for purposes of the conversion process if**
8 **there are canal shares on that same land; is that accurate?**
9 A. Well, it's a term we use rather loosely.
10 Sometimes it's -- you know, sometimes it can have different
11 meanings.
12 **Q. You're aware, aren't you, that licenses and**
13 **decrees for groundwater wells will contain actual**
14 **supplemental language? Are you aware of that?**
15 A. I am. And that's why I say we use that term
16 somewhat loosely, because in -- in some cases that's not
17 necessarily a declaration of privacy of the right.
18 You know, we -- again, in the context of this exercise I
19 confuse the word "supplement" that you refer to anytime
20 there's more than one source of water on any given
21 irrigated acreage.
22 **Q. Are you aware, though, that many groundwater**
23 **users who have a primary groundwater right will use the**
24 **groundwater right and not use their shares?**
25 A. Yes. I am aware that that occurs.

1 **reduction, though, to be accurate, would have to be**
2 **parcel-specific and it would have to look at the specific**
3 **mix of waters actually being used on that particular**
4 **parcel?**
5 A. Of course. I will -- I can tell you that I
6 believe the 30 percent represented an average -- what the
7 Department believed was an average reduction.
8 **Q. Okay. Back to conversions.**
9 A. Okay.
10 **Q. Were there certain conversions where you felt**
11 **that the headgate measuring device for the delivery of**
12 **surface water was inaccurate?**
13 A. There was one that I had some concerns about,
14 um, and I never really investigated the headgate delivery
15 structures on the conversion projects last year. I did not
16 have time.
17 **Q. Do you think that is a significant problem**
18 **going forward? I just want to know whether you think that**
19 **maybe the headgate diversion measuring devices need to be**
20 **improved for the future?**
21 A. I don't really know, Mr. Fereday. I --
22 because I haven't looked at a lot of them. This just
23 happened to be one that was right on the farm, and I could
24 see it, and I had some questions about it. And, uh, the
25 rest of them, uh, were up the ditch somewhere and I didn't

1 **difficulty?**
2 A. Yes. And those were the operators who were
3 required to put alternative devices on for 2005.
4 **Q. Do you remember who some of those individuals**
5 **were?**
6 A. Well, not without my notes, no. It's all
7 contained in the spreadsheet which was sent out.
8 **Q. That was the large format spreadsheet?**
9 A. Correct. There was, I think, a specific
10 column in there that even referred to device required for
11 2005.
12 **Q. With regard to those conversions that were**
13 **irrigated under Northside shares, I take it you did not**
14 **make any attempt to determine whether the shares were being**
15 **rented or whether they were appurtenant to those parcels?**
16 A. No. We did not look into that. I mean, not
17 directly with the canal company, only the information we
18 had in our office.
19 **Q. With regard to the power consumption**
20 **coefficient, or PCC measurements, you note back in**
21 **Exhibit 1 that even -- quote, "Even with current PCC**
22 **measurements power consumption data are not received until**
23 **January or February, and final determinations of**
24 **groundwater use cannot be made until then," end quote.**
25 **Do you recall that?**

1 really get a chance to look at them. That is something
2 that needs to be verified.
3 **Q. Okay. In that one instance where there were**
4 **some questions did you notify that landowner or that**
5 **irrigator about that problem?**
6 A. I notified the operator that I had a concern
7 about the device. I did not talk to the ditch rider.
8 **Q. Do you remember who that operator was?**
9 A. Yes. It was, um -- well, it was K & W Farms.
10 The name of the operator escapes me right now.
11 **Q. And with regard to some of the conversions**
12 **where there were groundwater pump measuring systems**
13 **involved, didn't you find that in some of those situations**
14 **the measuring system was not up to snuff or was not as**
15 **accurate as you would like? Is that fair to say?**
16 A. Yes.
17 **Q. And what specific concerns with regard to pump**
18 **measurements -- groundwater pump measurements -- did you**
19 **identity?**
20 A. Mostly the issue was that when the, um -- the
21 system was converted over to a mixed-use system, um, the
22 former method of power consumption coefficient was no
23 longer valid, because of multiple demands on its
24 power meter.
25 **Q. Did you inform those operators of this**

1 A. Yes.
2 **Q. Did you acquire those power records after**
3 **writing this memo and attempt to make final determinations**
4 **of groundwater use on those parcels?**
5 A. No. On the conversion projects we requested
6 power data from -- through the North Snake Groundwater
7 District, who collected it from their users, who I assume
8 had to go directly to Idaho Power on the ones that we
9 needed.
10 **Q. What about attempting to acquire power data**
11 **after the January/February date? Are you saying that**
12 **that's when it was provided?**
13 A. No. It was provided on conversion projects,
14 uh, for us in, uh, December -- before I -- before I wrote
15 this note for just those conversion wells where PCC remains
16 valid and where -- well, actually -- yeah. Where PCC
17 remains valid and where we could get to areas of
18 groundwater withdrawal using PCC, we actually requested
19 that early power records be turned in to us in December of
20 2005 so we could make this analysis.
21 **Q. So the analysis, then, was not necessarily as**
22 **accurate as it could have been if the final PCC data had**
23 **come in after February; isn't that correct?**
24 A. No, I wouldn't say that.
25 **Q. Why not?**

1 **Exhibit 1, in that December 12th memo you wrote that,**
2 **quote, "Acres under endguns were not accepted. Parcels**
3 **less than one acre were not accepted."**
4 **What was the rationale behind your decision to**
5 **deny credit for acres under endguns and all parcels under**
6 **one acre?**
7 A. Acres under endguns are pretty hard to
8 determine in some cases because of overspray and because of
9 pivot overlap. Acres under endguns don't actually always
10 amount to production. We saw some of that.
11 I also saw acres under endguns which were not
12 a part of the water -- about the water right. In other
13 words, the endgun has been added after the water right was
14 determined and, uh --
15 **Q. In other words, it was an enlargement of some**
16 **kind?**
17 A. Actually, an enlargement. But a lot of times
18 I reported those under "enlargements" rather than under
19 "endguns." I believe -- and, here again, I'm not totally
20 familiar with this reference, but I believe the Department,
21 in one of its programs, has made the determination not to
22 recognize endgun reduction as just being minor, and so we
23 tried to stay consistent with that.
24 Um, parcels less than one acre were just
25 really -- even when we had good documentation on 'em -- so

1 small that -- well, we couldn't verify 'em on our -- on
2 our, uh, digital -- digital photography that we had. They
3 were just too small and our resolution was too gross. We
4 just couldn't get down that small.
5 And also, even when you'd go out in the field
6 sometimes it was tough to find them or even determine
7 anything. So for the number of small parcels that there
8 were -- and I don't believe there was more than a
9 handful -- we, uh -- we just didn't -- we just didn't
10 include it.
11 **Q. You agree, though, that drying up even a small**
12 **parcel that was irrigated with groundwater would cause a**
13 **reduction in consumptive use from the aquifer?**
14 A. It varies, certainly.
15 **Q. You mentioned that reductions -- often**
16 **endgun -- turning off endguns doesn't cause a reduction. I**
17 **think that's what I -- at least that's what I heard.**
18 **Could you elaborate on that, please? Is that**
19 **a correct characterization of your statement?**
20 A. Yeah, that's what I said. Um, in many cases
21 what I see in the field is that pivots overlap, and the
22 real benefit of the endguns is only in the corners. But,
23 um, on the sides of the pivots the two pivots come
24 together, and so you've basically got your endgun watering
25 somebody else's -- you know, watering the area underneath

1 another circle. So to turn that endgun off really gains
2 you nothing. That area is still irrigated under that other
3 circle. Um, and what's left over was just -- almost
4 insignificant.
5 **Q. What if an endgun, though, is the only source**
6 **of water for that particular corner or acre or parcel?**
7 A. Um --
8 **Q. Wouldn't turning it off actually cause less**
9 **water to be diverted from the aquifer and less consumptive**
10 **use to occur?**
11 A. I would agree that it could cause less
12 consumptive use. I would not always agree that less water
13 was diverted, but that's simply because the system just
14 makes an adjustment when an endgun comes on.
15 **Q. What kind of adjustment does the system make**
16 **when an endgun comes on?**
17 A. A lot of times the, uh, pressure at the
18 nozzles for the rest of the pivot are just, uh -- are just
19 reduced to accommodate the extra flow of the demand of the
20 endgun.
21 **Q. So shutting off -- if there was -- let's just**
22 **pick a number. If there were a hundred gallons a minute**
23 **coming into the pivot, turning on or shutting off the**
24 **endgun would not cause that hundred gallons a minute to**
25 **change. Is that --**

1 A. I have --
2 **Q. -- a good hypothetical?**
3 A. I have measured systems where the endgun on or
4 endgun off condition, the diversion from the well was
5 approximately the same. It didn't make a significant
6 difference. But that, again, is only referencing the
7 actual version of water, the actual withdrawal of water.
8 The consumptive use could be decreased. It was an amount
9 that we decided to stay consistent and just not allow any
10 endguns.
11 **Q. Now, the groundwater districts did receive**
12 **curtailment credit for some corners -- pivot corners, did**
13 **they not?**
14 A. Sure, they did.
15 **Q. And many others they did not receive credit;**
16 **isn't that correct?**
17 A. That's correct.
18 **Q. Could you just describe how you made the**
19 **determination from one to the other?**
20 A. Well, in a -- in a pivot corner where it's
21 irrigated with, uh, hand lines or wheel lines or some other
22 equipment separate from the pivot, um, there was a valid
23 water right on that corner and that corner had been
24 irrigated and it was no longer irrigated and, uh, we
25 wouldn't get credit for that -- for those acres.

1 Q. But if it was irrigated with the same pivot by
2 means of an endgun, or some other technique, you would tend
3 not to give it credit?
4 A. That's correct. An endgun will pick up -- I
5 don't know, I would say less than an acre of land -- extra
6 land in a corner. And there's typically three to seven
7 acres in a corner, depending on the acre in the (inaudible)
8 system.
9 Q. Ms. Yenter, just a few additional questions to
10 go back over a couple of things that maybe aren't clear.
11 With regard to Exhibit 1, I believe you
12 indicated that you made an initial determination of which
13 of the 21,000 some odd acres did not meet eligibility
14 criteria, and I think you indicated that you verified
15 something like 95 percent of those.
16 Isn't that what you said?
17 A. Yes. The ones that were initially determined
18 to be eligible.
19 Q. What were the initial eligibility criteria
20 that you applied? Are they set out fully in this memo?
21 A. They are set out mostly in this memo in the
22 table on Page 2.
23 Q. Do you know how many acres met this
24 preliminary eligibility criteria out of the 21,000?
25 A. You know, not exactly, Mr. Fereday, because

1 Q. Now, what we're talking about here today
2 relates to, does it not, the following paragraph that I'll
3 read to you in the Director's May 19th, 2005 Order. This
4 is at Page 21.
5 Do you happen to have that?
6 A. I do have that one. Page 21?
7 Q. I'm sorry, I'm at Page 28.
8 A. 28.
9 Q. And this is the paragraph in parentheses
10 numbered "(1)".
11 A. Okay.
12 Q. And I won't read the entirety of it, but it
13 begins "By 5 p.m. on May 30, 2005, the irrigation district
14 or groundwater districts that polled (phonetic) to
15 represent the groundwater rights for consumptive uses
16 having priority dates later than December 28th, 1973,
17 causing material injury to water right number 36-07427 of
18 the affected water rights must submit a plan or plans to
19 the Director to provide mitigation by offsetting the
20 entirety of the depletion to the ESPA under such rights, or
21 to provide Blue Lakes travel with a replacement water
22 supply of suitable water quality of 10 cfs a minute
23 (inaudible)."
24 This is the paragraph that is the basis for
25 the Replacement Water Plans and it's the hearing that we're

1 some of our numbers were adjusted after we did our field
2 reviews both up and down, you know, before end use, but it
3 wasn't too awfully far away from the orig- -- you know, the
4 final number of 6885.
5 MR. FEREDAY: We have no further questions.
6 MR. DREHER: Thank you.
7 Mr. Steenson, you can go to Cross.
8 MR. STEENSON: Yes, sir.
9
10 CROSS-EXAMINATION
11 BY MR. STEENSON:
12 Q. I have a few questions concerning the question
13 Mr. Fereday asked related to credit for voluntary
14 curtailments and with respect to the seepage. I'll ask
15 about voluntary curtailments, first.
16 Do you mind if I called you "Cindy"?
17 A. No.
18 Q. Cindy, are you familiar with the Director's --
19 with respect to Blue Lakes, the Director's May 19th, 2005,
20 Order responding to Blue Lakes' demand?
21 A. Yes, I am.
22 Q. Okay. And have you reviewed the Orders that
23 he's issued subsequent to that relating to the Groundwater
24 Districts' Replacement Water Plans?
25 A. Yes, I reviewed them.

1 having today; is it not?
2 A. Correct.
3 Q. And the particular part of this paragraph that
4 these plans are submitted to address is the following
5 phrase, quote, "must submit a plan or plans to the Director
6 to provide mitigation by offsetting the entirety of the
7 depletion to the ESPA under such rights"; is that correct?
8 Do you see that phrase?
9 A. Yeah. I see that phrase. Yes.
10 Q. That's the phrase that these plans are
11 submitted to address; isn't that correct?
12 A. Yes.
13 Q. And what does this phrase mean to you; "-- by
14 offsetting the entirety of the depletions from the ESPA
15 under such rights"?
16 A. What does it mean to me?
17 Q. Yes.
18 A. I guess I would have to say it would mean to
19 me that it, uh -- that the groundwater user would be
20 required to offset the injury which had been determined
21 under that particular (inaudible). And by providing, you
22 know, replacement water at -- at that point.
23 Q. Specifically the phrase "depletion from the
24 ESPA," what does that mean?
25 A. "Depletion from the ESPA" typically refers

happened. Uh, early in '06, before it happened, there was this water running in the canals. And some of that water came from a natural flow right at Milner which was a priority.

MR. SIMPSON: Thank you.

MR. DREHER: Okay. Ms. Yenter, thank you very much. You're excused.

And we'll take, what, a ten-minute recess?

MR. FEREDAY: Yes. Or five, perhaps?

MR. STEENSON: Whatever.

MR. DREHER: Let's do the ten.

MR. FEREDAY: Okay.

(A recess was taken.)

MR. DREHER: Mr. Fereday.

MR. FEREDAY: We would like to call Tim Luke, please.

MR. DREHER: Mr. Luke.

Would you raise your right hand, please.

TIM LUKE,
having first duly affirmed under oath, testified as follows:

MR. DREHER: You may be seated.

DIRECT EXAMINATION
BY MR. FEREDAY:

Q. Mr. Luke, could you please describe what your role is at the Department of Water Resources; your position?

A. I am the manager for the water distribution section in the Water Allocation Bureau. And relative to this matter I supervise Cindy Yenter as the watermaster of Water District 130. And I work with various water districts as well the measurement program (inaudible).

Q. You worked with Water District 01, then?

A. Uh, from time to time.

Q. And you are generally familiar, aren't you, with the subject matter that Ms. Yenter has been testifying about this morning?

A. Yes.

Q. With regard to that 9400 acre-feet of what I'm calling "losses" in the Northside Canal, do you remember the testimony this morning from Ms. Yenter about that?

A. Yeah, essentially.

Q. And that discussion between Ms. Yenter and me had to do with the 9400 acre-feet that was accounted -- was diverted at Milner into the Northside system and paid for by the groundwater districts as storage water, and then not actually delivered because it was counted as a loss,

correct?

A. Correct.

Q. Where did this 9400 acre-feet go, in your view?

A. I don't know. Uh, you know, I do know that 20,000 some odd acre-feet, just a little over 20,000, was being reported as being delivered to the conversion project headgates. Uh, roughly, 11,000 or so was delivered, as I understand it -- or reported to have been delivered -- to the Sandy Pipeline. And based on what Northside considers its losses and -- which is, as I understand it, what they figure is 30 percent to back into the 9400.

Q. You recognize, and I assume agree with Ms. Yenter, that all the water that's in the Northside Canal system is commingled as it's moving down the canal?

A. Commingled in the sense of storage water and natural flow?

Q. Correct.

A. Yes.

Q. And commingled in the sense of water diverted for one user's account as opposed to another water users account. They're all commingled, aren't they?

A. Yes.

Q. So if this water was diverted at Milner and not delivered to the conversions, to the Sandy Ponds or to

the other Northside Canal Company shareholders, and not spilled back to the river, then it must have gone into the aquifer, wouldn't you say?

A. You know, I can't say for sure. Um, I can only testify that the 9400 was a calculated number.

Q. It also was a diverted number, was it not?

A. Uh, I don't know if it was really diverted. I can only tell you what was reported as being delivered to those field headgates. Um, the 9400 was a calculated number. Uh, you know, I believe water was certainly delivered for conversion projects in Sandy Pipeline through Milner, that's correct. And I think, you know, if you were to look at the -- and there is certainly water reported as being delivered to Milner through Water District 01.

Q. Do you remember Exhibit 3? And perhaps you would like to refer to it there. Ms. Yenter and I were discussing it during her testimony.

Do you have any reason to believe, based on that exhibit, that the 9444 acre-feet were not diverted into the Milner -- excuse me, the Northside Canal at Milner?

A. Do I have any reason to believe it wasn't?

Q. Correct.

A. No, huh-uh. I can't really testify to the amount. I can just tell you that what was reported to us

was delivered as -- to the field headgates for the conversion projects and Sandy Pipeline. And that they were charged, I think, for 9400 acre.

Q. Okay. Mr. Luke, you're aware of aquifer recharge programs that have occurred in the past, aren't you, whereby water has been diverted into ESPA area canals including the Northside Canal, specifically to recharge the aquifer through seepage losses; you're aware of those programs?

A. Uh, yes.

Q. And those programs have occurred in a number of years in the past, including this year, 2006; isn't that correct?

A. Uh, I think water diverted to Northside in 2006 was really under Northside's normal natural flow rights and just part of their charging up the system. To the extent that there's incidental recharge from that (inaudible) could be -- there can be incidental recharge as a result.

Q. And that incidental recharge occurs because of what?

A. Well, in, like, most canal systems when you're charging it up at the beginning of the year it's -- conditions are dry and you will lose a fair amount of water at the beginning of the year.

Q. And that will --

A. It's just a matter of maintenance cleaning out their canals and getting the system charged.

Q. And that water loss will enter the aquifer?

A. Uh, correct.

Q. And losses occur after the canal is charged, as well, do they not?

A. Correct. Not necessarily at the same rate.

Q. In 2006, water was diverted at Milner into the Northside Canal under the Idaho Water Resource Board's recharge water right; isn't that correct? Or am I mistaken about that?

A. Well, I'm not certain.

Q. So do you know the reason why the Department of Water Resources did not extend a recharge credit to the groundwater districts for their conversion and Sandy Pipeline diversions in 2005, in their mitigation plan?

A. I think the reason was in the -- one of the Orders that was -- I believe Mr. Steenson referred to earlier, and this is Ms. Yenter's testimony.

Q. Could you describe what that reason was --

A. Uh --

Q. -- in your own words?

A. I'd prefer just to refer to the Order.

Q. That would be fine, if you'd like to.

A. I'm not sure which Order that was.

Q. Was that the May 19th Order of Blue Lakes 2005?

A. Probably.

Q. Do you have a copy of it there?

A. I don't think so.

Q. And I think -- was it at Page 21?

A. I don't know. I don't have the Order in front of me.

Q. Can you remember what it said?

A. Well, I think, uh, it said essentially that adding the storage delivery to the pond -- Sandy Pipeline and the conversion projects -- on top of the normal water delivery to Northside, did not increase recharge by the same amount for that water.

Q. I believe that was the April 29th, 2006 Order. Is that your recollection?

A. No.

(Inaudible comment.)

MR. FEREDAY: I'm sorry. Can we go off the record for a moment?

THE WITNESS: Sure.

(Discussion off the record.)

Q. (BY MR. FEREDAY) I'm showing you the Order

regarding IGWA Replacement Water Plan dated June 7th, 2005. Was that the Order you were referring to?

A. Yes, it is.

Q. And I note that you're referring to Page 6 in paragraph 29 there?

A. Correct.

Q. That states in part "When the canals of Northside are fully charged and water is already seeping into the ground, the addition of surface water on top of existing surface water will not significantly increase the seepage"?

A. Correct.

Q. Is that right?

A. Yes. That's -- the paragraph says that.

Q. You, Mr. Luke, know yourself whether that is a true statement?

THE RECORDER: (Inaudible comment.)

MR. FEREDAY (To the Recorder): Well, yeah. Let's go -- we are back on the record, I hope?

THE WITNESS: I generally compare it with that premise, yes.

Q. (BY MR. FEREDAY) So it's your position that the 9400 acre feet that was put into the canal and not accounted as a seepage credit went somewhere? Or did it go nowhere?

A. I can't answer that question. I don't know what was actually delivered for that purpose. Again, the 9400 acre-feet was what was charged to (inaudible).

Q. So you're actually suggesting that maybe that 9400 acre-feet never found its way into the canal?

A. Um, no, I don't think I'm suggesting that. I'm just saying I don't know.

Q. Okay. Let's assume that it did find its way into the canal. Are you saying that it did not go into the aquifer?

A. I think some of the water could have gone into the aquifer. Um, I don't know that that storage that was delivered to the canal company was really anymore storage than what's normally delivered to Northside and . . . you know, the -- I -- I don't know the answer.

Q. So you don't know where it went, but you don't -- you are not saying that it didn't go into the aquifer; is that correct?

A. Correct.

Q. The 9400 acre-feet, if, in fact, it was diverted at Milner as we believe it to have been, Mr. Luke, does that water actually just float on top of the other water that's already in the canal, or is it commingled?

A. It's commingled.

Q. Okay. With regard to the irrigated in 2004

requirement as to credit for voluntary curtailments, did you hear the testimony this morning of Ms. Yenter about that?

A. Yes.

Q. Could you describe for us the reasons why the Department disqualified from consideration as a curtailment acre those acres that were not irrigated in 2004 with groundwater?

A. That was a decision of the Director.

Q. Did you have a role in that decision?

A. No.

Q. Was it due to an interpretation of the groundwater districts' mitigation plan that Mr. Steenson referred to in his colloquy with Ms. Yenter; do you know?

A. No, I'm not sure.

Q. If the wells that were not pumped in 2004, and whose acreages, therefore, were ineligible, were turned back on tomorrow and then shut off next year, would they come back into eligibility next year because they had been pumped this year?

A. Is that just a hypothetical question?

Q. That is a hypothetical question, that's right.

A. Assuming that we were looking at a mitigation plan next year?

Q. Yes.

A. I think that would be consistent with the Order.

Q. And what do you think is more valuable to the aquifer if the goal is to increase recharge to the aquifer, a well that is turned off for one year or a well that is turned off for more than one year?

A. I couldn't answer that question necessarily. It's probably outside of my expertise.

Q. Okay. With regard to the Department's determination that some wells were supplemental and, therefore, their curtailment acres could not get full credit, do you recall the testimony this morning from Ms. Yenter?

A. Yes.

Q. Did you have any role in evaluating or making policy concerning the credit to be given for those acreages where wells were deemed to be supplemental?

A. You're referring to the reduction acres?

Q. Yes. With reference to reduction acres.

A. Um, no. I was involved in discussions, but not any decisions. My involvement was more in the analysis.

Q. Do you recall any discussion or analysis of the determination that a 30 percent credit would be given under certain circumstances for those acreages where a

supplemental well was deemed to exist?

A. Are you talking reduction or . . .

Q. Reduction, yes. Do you recall that 30 percent figure at all?

A. We didn't give 30 percent reduction on supplemental -- or reduction -- on the reduction acres.

Q. Didn't you give credit to the tune of 30 percent in some circumstances, based on your conclusion that there was a supplemental well usage on the property?

A. Well, I thought on reduction acres on supplemental we didn't -- for supplemental there was no -- the land continued to be irrigated, but we didn't get any credit. Uh, if the land was not irrigated, then, yes, we did give 30 percent. So if it was land in which the groundwater right was supplemental, it can have water. And if it was not irrigated, you know, we gave 30 percent credit.

I'm sorry. I didn't understand your question.

Q. Perhaps you can refer to the Exhibit 1 which describes the reduction acre analysis. And I believe if you refer to eligibility code 3 on Page 6 you'll find the notation that it was irrigated in 2004, not irrigated in '05, groundwater supplemental 30 percent credit.

A. Correct. And as I just said, yeah -- I didn't understand your question originally -- it was just that.

1 If it was not irrigated in '05, but irrigated in '04, and
2 it was supplemental, we gave the 30 percent credit.
3 **Q. And why was 30 percent chosen?**
4 A. Uh, that would be a better question or
5 Mr. Wylie -- or Dr. Wylie, but I believe it was a figure
6 from a groundwater model. It was consistent with the
7 groundwater model and how the groundwater model treated
8 supplemental wells. And I can't explain the basis for the
9 30 percent, but I'm pretty certain that's where the figure
10 came from. So we were being consistent with how that
11 situation was applied in the model.
12 **Q. That was not, then, a policy choice that you**
13 **made?**
14 A. No.
15 **Q. What was the Department's policy goal or**
16 **reasoning in declaring a reduction acre would be rejected**
17 **if it were not irrigated with groundwater or in a**
18 **mitigation plan in 2004?**
19 A. Again, that -- that wasn't my decision. I
20 think it just had to do with, you know, actual reduction in
21 modeling acres that just were not irrigated the prior year.
22 I think it was just reviewed as a real reduction; an actual
23 reduction.
24 **Q. Okay. With regard to the excess deliveries**
25 **that we discussed with Ms. Yenter, did you have any role in**

1 **reevaluating or establishing policy with regard to how**
2 **excess deliveries would be credited?**
3 A. You're referring to diversion projects?
4 **Q. Correct.**
5 A. Yeah. I had some role in assisting on the
6 analysis for the data.
7 **Q. The excess deliveries were credited as**
8 **recharge; isn't that correct?**
9 A. They were.
10 **Q. And those were amounts of water that were**
11 **diverted down to Northside Canal, correct?**
12 A. Uh, that was water that was actually reported
13 as diverted at the field headgates by the groundwater
14 district and Northside Canal.
15 **Q. But that water was storage water, was it not,**
16 **that was acquired by the groundwater districts, and then**
17 **delivered into the Northside Canal system?**
18 A. Correct.
19 **Q. So that water was diverted down the Northside**
20 **Canal system, correct?**
21 A. Yes.
22 **Q. Those excess deliveries were credited to**
23 **recharge, correct?**
24 A. Twenty thousand- -- referring to . . . -- was
25 reported to the Department from the groundwater district --

1 North Snake Groundwater District that Northside was over
2 20,000 acre feet for conversion.
3 **Q. Correct.**
4 A. The Department determined the excess water as
5 a result of the some of conversion project when we looked
6 at the surface water delivery and/or the combined surface
7 water groundwater use under those same projects had it
8 exceeded four acre-feet for being normal duty in that area
9 of groundwater rights.
10 So if particular delivery combined
11 groundwater/surface water use or just surface water
12 exceeded four, we calculated four acre feet at a value
13 associated with four acre-feet. And any additional was
14 viewed as excess and then spread out across the Northside
15 delivery area.
16 **Q. And input to the SPA groundwater model as**
17 **aquifer recharge, correct?**
18 A. Correct. Except that I think some portions
19 of -- of conversion projects and, uh, the excess was
20 actually taken out, because, uh, portions of the Northside
21 Canal service area and some of the conversion projects fell
22 outside of a, uh, area of impact under the delivery call,
23 which was determined by the groundwater model, which has to
24 do with the accuracy. I can't explain it. Dr. Wylie can.
25 So I guess some of the delivery was not actually -- some of

1 the excess -- a small portion of it was not actually
2 counted and -- as well as some conversion for it, because
3 it fell outside of that accuracy.
4 **Q. Outside of that "trimline," if you will?**
5 A. Yes.
6 **Q. But the excess water that did fall within it**
7 **was credited to the aquifer, correct?**
8 A. Correct.
9 **Q. Do you have any explanation as to why the 9400**
10 **acre-feet that was delivered down the canal system was not**
11 **credited to recharge, when this excess that the Department**
12 **found through deliveries was credited to recharge?**
13 **Do you have any explanation for the**
14 **difference?**
15 A. No. Other than, I guess, the one difference,
16 though, is that the Department had accepted that this
17 excess water was part of the water delivered to the canal,
18 and that it was just excess water.
19 **Q. Do you know why the excess water was credited**
20 **across the Northside system, as opposed to being credited**
21 **at the point of delivery?**
22 A. Uh, not for sure. I believe it -- you know,
23 we didn't really know where the water went. It was just an
24 equitable approach, I believe.
25 **MR. FEREDAY: No further questions.**

A. Yes.
Q. Did you hear the discussion today about the relative benefit of shutting off a supplemental well -- there was some testimony about the issue of supplemental wells. Did you hear that today?
A. Yes, I did.
Q. Has your work with modeling ever included evaluating what the effect of shutting off supplemental wells might be? Have you ever looked at the supplemental well question?
A. So your question is, uh, land irrigated partially by surface water and partially by groundwater?
Q. That's correct.
A. And then what would be the effect of turning off the groundwater well?
Q. Correct.
A. Um, you're asking how we -- how we evaluated that?
Q. Yes. How, in general, you have evaluated those kinds of situations in the past using the Model; if you have.
A. The, uh -- in this case we weren't supplied with any case what percentage of the time the groundwater well was used. So we used the number that we determined during model calibration that, in general, lands in the

Northside service area uses the groundwater 30 percent of the time. So that's the number we used.
Q. The 30 percent number, then, came through your previous experience using the Model for mixed source irrigation land -- mixed being ground and surface?
A. Yes.
Q. Do you know how those data were gathered with regard to the previous model runs? How long a particular well is run and how much -- surface water irrigation and so forth, how those data were collected?
A. Um, the -- we used the water duty number that, uh, it took about four acre-feet -- four feet of water per acre to adequately irrigate land in the Northside area. And then, um, saw how much, uh, water was left over for the mixed land, and then figured that they had to make up the difference using groundwater.
Q. Based on a four-acre foot per acre delivery at the field --
A. At the field headquarters, yes.
THE RECORDER: (Inaudible comment.)
MR. DREHER: Mr. Fereday, if you could pause for a moment, we're not sure we're picking up Dr. Wylie's responses here.
(To the Recorder): Okay. So we don't have the digital recorder anymore?

THE RECORDER: (Inaudible comment.)
MR. DREHER: Ah. Okay. All right. I knew something was missing. Okay. Excuse me. You may proceed.
Q. (BY MR. FEREDAY) In those evaluations that led to the 30 percent figure, did you assume that groundwater deliveries, a duty of water, would be four acre-feet per acre of diversions from that groundwater well?
A. Uh, we were assuming that the groundwater and surface water combined would yield a four acre-feet per acre.
Q. Have you evaluated what the typical diversion for a groundwater-irrigated acre is in the Northside Canal Company service area where only groundwater is used; what the duty of water typically would be there?
A. No, I have not.
Q. Do you believe that it would be the same -- that is four acre-feet -- as it is with surface water?
A. I guess in the absence of any other information I would have to accept four.
Q. The duty of water of four acre-feet, if it is water that is delivered down the Northside Canal it involves more than that, doesn't it, to get it there to the field headgate to carry water?
A. Yes. There are losses.

Q. Do you think that the losses of somewhere in the range of 30 percent in the Northside system are a fairly reasonable or reliable figure to use -- 30 percent?
A. I've heard it commonly used. I -- I don't -- don't know if it's been measured, but I've heard it very commonly.
Q. Would that surprise you that it would be as high or as low as 30 percent, or does that sound like a reasonable number, in your experience, for canal losses?
A. Uh, I don't -- it didn't sound -- doesn't sound shocking to me.
Q. Okay. To your knowledge, has there been any study done of losses in the Northside Canal system?
A. None that I'm aware of.
Q. The Model has been structured so that it can evaluate the effects of seepage from canals and laterals on the aquifer; isn't that correct?
A. That's correct.
Q. Could you describe to us how the Model looks at canal seepage?
A. During calibration?
Q. Well, first during calibration and then through an -- a sample model run.
A. During calibration we took a -- just a percentage of the water delivered, much the way the canal

1 companies, uh, figure it. So just from the delivery map
2 out, the trace of the canal, and, uh, subtract off the
3 percentage -- that percentage over that reach of the canal.
4 Once it got to the service area, then, uh, we
5 typically did not put in the -- the canals and laterals,
6 because water lost in the service area was much like, uh,
7 deep percolation during irrigation.
8 **Q. So the Northside Canal was modeled in that**
9 **context as part of the calibration exercise for the Model?**
10 A. That's right.
11 **Q. And I take it, then, that the Model**
12 **calibration was assuming that losses in the main canal of**
13 **whatever number was accepted -- let's take 30 percent --**
14 **found its way into the aquifer?**
15 A. That's correct.
16 **Q. And the amount of water that was delivered out**
17 **of the main canal into the network of laterals and on to**
18 **actual irrigated lands, that was a second subset of loss,**
19 **if you will; is that correct?**
20 A. That's correct.
21 **Q. And that subset of loss was subject to another**
22 **coefficient. Whether it was 30 percent or 15 percent, it**
23 **was another coefficient; is that right?**
24 A. No. Once it reached the service area, in most
25 cases we just took, uh, the water that reached the service

1 area less ET. And then the rest of that went in as aquifer
2 recharge.
3 **Q. Okay.**
4 A. Less ET and precip.
5 **Q. Yes. Moving forward from calibration, the**
6 **calibration exercises of the Model, have you used the Model**
7 **or seen it used to evaluate the effects of seepage losses**
8 **from canals, laterals, or surface water irrigation; the**
9 **effects on the aquifer?**
10 A. Surface water irrigation, I've not done it
11 with canals.
12 **Q. Okay --**
13 A. Well, uh, this spring we looked at potential
14 recharge operations on canals.
15 **Q. Could you describe that exercise this spring**
16 **with regard to using the Model to predict recharge from**
17 **canals?**
18 A. Just, uh, took a shape file and laid it
19 over -- of the canal, laid it over the Model grid, and
20 selected all the cells in the Model grid that intersected
21 the canal shape file. And extracted that information and
22 put in, uh, a uniform linkage value and -- and ran the
23 Model.
24 **Q. Is the Northside Canal included in that**
25 **analysis this spring?**

1 A. We did an analysis on the Northside Canal,
2 that's correct.
3 **Q. Do you recall how much water was used in the**
4 **Northside Canal, or diverted into the Northside Canal for**
5 **that exercise, at least according to your model work?**
6 A. I think we were looking at a potential
7 recharge of right around 300 cfs diversion. And there was
8 some assumption about how far that water would make it down
9 the canal.
10 **Q. Do you recall what the results of that model**
11 **run were -- how much recharge occurred?**
12 A. Uh, it would -- it was all of it. Uh, there
13 was some assumption that the 300 cfs, it would get so far
14 down the canal. I don't remember how far. But all of it
15 was recharge.
16 **Q. With regard to the groundwater districts'**
17 **conversions and acreage reductions that we have been**
18 **discussing today, you've heard, haven't you, the testimony**
19 **concerning the fact that the Department did not extend any**
20 **seepage credit as recharge for the deliveries to**
21 **conversions, for example, and to the Sandy Pipeline and**
22 **Ponds Project? Have you heard that?**
23 A. I have heard that, yes.
24 **Q. Do you know why the Department did not extend**
25 **that credit for seepage losses for the water carried to**

1 **those projects?**
2 A. I -- I'm afraid you would have to look pretty
3 hard to find somebody more ignorant on policy than me.
4 **Q. I take it that's a "no"?**
5 A. I have no idea.
6 **Q. And because that's a policy question, is that**
7 **right?**
8 A. That's right.
9 **Q. I'd like to ask you a hypothetical question**
10 **about a hypothetical well a few miles back from the canyon**
11 **rim in an area that would be relevant to the Blue Lakes or**
12 **Clear Springs facilities that we're discussing today.**
13 **If that well is shut off for one year it will**
14 **have a certain predictable effect, according to the Model,**
15 **correct?**
16 A. Correct.
17 **Q. On those spring flows?**
18 A. Uh-huh.
19 **Q. Is that a "yes"?**
20 A. That's a "yes." Sorry.
21 **Q. And if that well is kept off for a period of**
22 **years, that -- what will be the effect of that -- of that**
23 **shutoff on the spring?**
24 A. It will slowly increase.
25 **Q. With regard to the 9400 acre-feet that you've**

1 heard us discuss at some length already today, do you have
2 an opinion as to where that 9400 acre-feet went that was
3 diverted into the Northside Canal and then was not
4 delivered to actual diversions out onto the ground at the
5 conversion sites or into the Sandy Pipeline?
6 A. There -- I think there are three possible
7 fates; one would be evaporation, one would be deep
8 percolation, and the other would be returns.
9 Q. Deep percolation would be recharge to the
10 aquifer?
11 A. Recharge to the aquifer, yes.
12 Q. Would you expect that that 9400 acre-feet
13 would have a fate any different from any other similar
14 component of water in the canal over that irrigation
15 season?
16 A. No.
17 Q. With regard to the 1380 acre-feet, do you
18 recall what that number was referring to?
19 A. The amount of water delivered to the
20 conversion acres.
21 Q. That was excess of the duty of water four
22 acre-feet per acre?
23 A. Yes.
24 Q. Do you recall that testimony to the effect
25 that that water was recognized as having recharged the

1 aquifer? Do you recall that?
2 A. Yes.
3 Q. Did you have a role in determining that -- or
4 evaluating it?
5 A. I, um, had a role discussing -- involved in
6 discussing what to do with it, as well as doing the
7 evaluation, yes.
8 Q. Could you describe what the substance of
9 those considerations were, with regard to the 1380 or the
10 excess water? Why was it determined, for example, that it
11 would be spread through the Northside system?
12 A. There was some concern, because it was above
13 the four acre-feet of common water duty in the area. There
14 were some, uh -- I guess I can say I lobbied that that
15 water should be put back -- put in, uh -- into the Model at
16 the spot where the well was.
17 Now, there was, uh, some concern that it was
18 above the four acre-foot water duty, so it shouldn't be put
19 in like that. And the resulting, as you saw, was that it
20 was spread over the surface-water irrigated lands within
21 the Northside surface area.
22 Q. And scientifically which is more reliable, in
23 your view, in terms of evaluating the recharge effect, to
24 calculate it as having been spread, or calculate it at the
25 site of the converted acre?

1 A. Um, my -- my opinion is that, you know, it was
2 measured as being delivered to the field, uh, it ought to
3 be put in at the field.
4 Q. Okay. Do you agree that the dry-up of even a
5 very small parcel of irrigated land on the ESPA that's
6 irrigated with groundwater would have a positive effect on
7 aquifer recharge, or would result in a decrease in
8 depletions of the aquifer, if you will?
9 A. It would.
10 MR. FEREDAY: No further questions.
11 MR. DREHER: Okay. Mr. Steenson.
12
13 CROSS-EXAMINATION
14 BY MR. STEENSON:
15 Q. Mr. Wylie, I'm Dan Steenson. I represent
16 Blue Lakes Trout Farms. We haven't met.
17 A couple of questions. You just mentioned
18 that you lobbied for a certain way in model calibration or
19 treating water delivered to converted acres, correct?
20 A. That was a model use not calibration.
21 Q. Calibration?
22 A. Yes.
23 Q. Can you describe -- you know, explain that
24 lobbying process that you just mentioned to me, what did
25 you mean by that lobbying for (inaudible)?

1 A. I just said that, you know, if, uh, the
2 groundwater users had, uh, leased that water and that it
3 was delivered to that field, then they ought to get full
4 credit for it.
5 Q. How much have you lobbied for that would you
6 explain?
7 A. I believe, um, Mr. Spackman, Mr. Luke,
8 Cindy Yenter, and the Director were involved in those
9 discussions.
10 Q. Was that a frequent occurrence that with
11 regard to some particular use of the Model or some -- other
12 other issues related to the Model there were issues that
13 were the subject of some opinion and debate and resolution
14 through group discussion (inaudible)?
15 A. No.
16 Q. Were there any other issues where you or
17 someone else would have lobbied one perspective against
18 another perspective and another one lobbied by somebody
19 else used in developing the Model?
20 A. During development, yes, there were extensive.
21 But that's not the focus of this.
22 Q. (Inaudible.)
23 A. Uh, during model development there were many
24 discussions about how to go about developing the Model.
25 Q. Okay. And by that do you mean people would

1 have varying opinions and agreements, disagreements about
2 issues between the Model?
3 A. I'd say -- I could give you an example. Would
4 that --
5 **Q. That would be fine.**
6 A. Okay. During model development, um, we
7 were -- we discussed how to handle tributary underflow.
8 That's, uh, flow into the aquifer from, uh, surrounding
9 aquifers. So we debated how to handle that. And there
10 was -- there was an extensive debate.
11 Some people wanted to have, uh, a seasonal
12 change in that signal, so that nearing, say, spring maybe
13 the recharge coming in through the tributary basins would
14 be higher and in the fall it would be lower. And some
15 people thought we really don't know what it looks like,
16 and, uh, assigning so much detail to it might erroneously
17 lead somebody to conclude that we know more about the flow
18 into the aquifer than we do. In the end, we wound up
19 changing it during wet years up and dry years down, but
20 leaving it on a annual basis was flat.
21 **Q. And so as a result in this particular example**
22 **the consensus conclusion, I would take it, may or may not**
23 **represent reality. It represents debate, discussion, and**
24 **consensus.**
25 **But I take it there's a level of uncertainty**

1 in terms of knowing whether or not your consensus decision
2 represents reality?
3 A. That's correct.
4 **Q. And that was an example of other circumstances**
5 **in which that kind of discussion and resolution of issue**
6 **process in total; is that correct?**
7 A. That's correct.
8 **Q. Okay. Now, with respect to canal seepage,**
9 **considering a canal in cross-sections it looks kind of**
10 **like a -- generally a canal would look somewhat "U" shaped**
11 **with banks on the outer edges of the "U" and with a body?**
12 A. That's correct.
13 **Q. Now, the amount of water lost, I take it, from**
14 **the 300 cfs example we discussed, isn't it correct that the**
15 **amount of water lost from a half-flow canal would be a**
16 **greater percentage of the water in that canal than the**
17 **amount of water lost from a three quarters flow of a full**
18 **canal?**
19 A. For instance, a hundred percent of the 300 cfs
20 we thought would have been lost.
21 **Q. And that would occur because the canal can**
22 **carry a whole lot more than that amount of water, correct?**
23 A. That's correct.
24 **Q. So if you have a canal that's already had that**
25 **initial wetting to begin part of the irrigation season --**

1 are you familiar with that process?
2 A. Yes.
3 **Q. And it's already hearing (phonetic), after**
4 **that wetting process, three quarters or more with capacity,**
5 **isn't it fair to say that the incremental addition of water**
6 **to that canal results in a lower percentage seepage than**
7 **the percentage loss from a less full canal?**
8 A. So what you're asking is if we add a little
9 bit to an almost multiply full canal are we substantially
10 going to change the leakage? No, we aren't going to
11 substantially change it.
12 **Q. So would it be fair to say that there would be**
13 **somewhat of a gradient, if you will, in loss from a hundred**
14 **percent in an empty canal to -- as a percentage --**
15 A. Uh-huh.
16 **Q. -- to something closer to zero in the**
17 **incremental addition to a full canal?**
18 A. Probably not zero, but you would ositonially
19 (phonetic) approach some value, in the Northside presumably
20 pretty close to 30 percent.
21 **Q. And the 30 percent number is a number -- I**
22 **guess I would suggest to you that it's a received number,**
23 **as far as you're concerned, not one that you know of any**
24 **basis for?**
25 A. That's right.

1 **Q. So I'll represent to you that the Department**
2 **Director issued an order entitled "Order regarding IGWA**
3 **Replacement Water Plans," with reference to the Blue Lakes**
4 **water delivery call, and it's dated June 7th, 2005, in**
5 **which it was suggesting that -- or it was stating that it**
6 **needed, quote, "technical analysis of the actual additional**
7 **seepage losses in the North Snake."**
8 **Now, North Snake and the NSCC delivery system,**
9 **resulting from the delivery of additional surface water,**
10 **further suggested that the Department cannot credit IGWA**
11 **with replacement gains unless the gains are computed based**
12 **on actual seepage data or the surface water added to the**
13 **NSCC delivery system," close quote.**
14 **So doesn't that sound reasonable that to**
15 **assign a value to the incremental addition to the canal at**
16 **some amount of water, rather than just use some received 30**
17 **percent figure, there needed do be some technical basis for**
18 **that incremental addition of seepage?**
19 A. Yes. Uh, I think that's saying that the
20 Department needs to know what's happening to that water in
21 order to give anybody credit for it.
22 **Q. Now, 30 percent is a figure, then, when you**
23 **have calculated, uh -- done all the runs to calculate the**
24 **effect of irrigation deliveries on aquifer levels over**
25 **time. As I note, you're done getting a description that**

1 you can work with here to understand in terms of working.
2 I take it you've used 30 percent as the figure for
3 contributions to the aquifer from canals such as the
4 Northside Canal. When you have modeled the effect of
5 irrigation over the last hundred years or so on the ESP, is
6 that the loss figure that you used; 30 percent?
7 A. Yeah. Over the calibration period.
8 Q. And you have done -- as a result of these
9 model runs -- you developed information to suggest the
10 impact of irrigation on aquifer levels over time; is that
11 correct?
12 A. That's correct.
13 Q. But, again, it's based on a 30 percent figure
14 about which you have no technical basis; is that correct?
15 A. Yes. They're -- they're received numbers.
16 MR. STEENSON: Thank you. I have nothing
17 further.
18 MR. SIMPSON: Mr. Simpson.
19 MR. SIMPSON: I have no questions.
20 MR. DREHER: Mr. Fereday, Redirect.
21 MR. FEREDAY: Just one moment, please.
22
23 REDIRECT EXAMINATION
24 BY MR. FEREDAY:
25 Q. Dr. Wylie, with regard to the 30 percent loss

1 in the Northside Canal, and that being a received number,
2 isn't it a fact that the Model development and calibration
3 used that number?
4 A. Um, I don't remember the actual number used,
5 but I, uh, suspect that Bryce Contour, who set that up,
6 consulted with Ted Diehl and got an order from Mr. Diehl.
7 MR. FEREDAY: No further questions.
8 MR. DREHER: Okay. Thank you.
9 Dr. Wylie, I do have a couple points of
10 clarification.
11
12 VOIR DIRE EXAMINATION
13 BY MR. DREHER:
14 Q. First off, I missed what you said you thought
15 would be the fate of the 9450 acre-feet of water. What was
16 the fate that you had said?
17 A. I said there were three possible things. It
18 could be loss to evaporation, it could, uh, be loss to deep
19 percolation, and it could, uh, go to returns -- a return to
20 the river.
21 Q. Okay. Isn't there a fourth possibility
22 wherein that water may have been diverted by the canal and
23 wasn't lost to evaporation; deep percolation? And what
24 didn't return to the river would have been distributed to
25 other shareholders on the Northside Canal system?

1 A. I would have included that in the evaporation,
2 but yes, that's it.
3 Q. Okay. Secondly, um, I want to address your
4 term -- your use of the word "lobbied."
5 Wouldn't a better description of what you
6 described be you had a proposal?
7 A. I had a proposal, yes.
8 Q. Okay. And in terms of that process, for the
9 sake of the record, I want to make it clear that when you
10 were describing the discussions in consideration of various
11 proposals for handling tributary underflow, that was not
12 discussions within the Department, per se, that was
13 discussions amongst the technical modeling committee that
14 included consultants representing various interests; is
15 that not correct?
16 A. That -- yes. It was the Eastern Snake
17 Hydrologic Modeling Committee where those discussions took
18 place.
19 Q. And then related to that, when you
20 described -- you were asked the question who was involved
21 in the deliberations about what to do with the excess water
22 beyond the four acre-feet per acre, you mentioned
23 Mr. Spackman, Mr. Luke, and Ms. Yenter, and you mentioned
24 me. But I didn't make the decision as to how to spread
25 that excess water, as I recall; did I?

1 A. I don't remember, um -- I guess all I remember
2 is that it wound up getting dispersed.
3 Q. And in a related question, when I ask you to
4 simulate some particular set of circumstances using the
5 Model, I don't tell you how to do that, do I?
6 A. No.
7 Q. One last point of clarification. This morning
8 Ms. Yenter testified that when water was -- and I'm
9 paraphrasing it as best as I can remember it, when water
10 was delivered to conversion acres that were served with the
11 supplemental well, then the amount of groundwater pumped or
12 withdrawn through that supplemental well was subtracted
13 from the credit that was given for the surface water
14 conversion, and I didn't remember that that's the way that
15 was done.
16 A. No, I took the amount of water that was
17 delivered to the acres -- the conversion acres. I didn't
18 subtract the pump water.
19 Q. So if -- if, in fact, the -- there were
20 supplemental wells that were -- that were used during the
21 year when surface water was being delivered for purposes of
22 conversion, we didn't -- we just presumed that that didn't
23 have any effect; is that correct, number one? And number
24 two, is that a valid way to address that?
25 A. In a sense the water that is pumped -- or the

1 the fact that it has been discussed. So we'll introduce
2 that as Exhibit 9.
3 **MR. DREHER: Mr. Steenson, Mr. Simpson, I**
4 **assume there's no objection to this?**
5 **MR. STEENSON: No.**
6 **MR. SIMPSON: No objection.**
7 **MR. DREHER: And we'll admit Exhibit 9**
8 **together with the previous eight exhibits that have already**
9 **been admitted.**
10 **(Exhibit No. 9 was admitted**
11 **into evidence.)**
12 **MR. DREHER: Dr. Wylie, I think we're done.**
13 **You're excused.**
14 **Mr. Fereday.**
15 **MR. FEREDAY: Mr. Director, at this time I**
16 **would like your indulgence in allowing Brad Sneed to**
17 **examine the next two witnesses from the groundwater**
18 **districts.**
19 **MR. DREHER: Certainly.**
20 **Mr. Sneed.**
21 **MR. SNEED: Mr. Director, I will now ask that**
22 **Mr. Rex Minchey take the stand as IGWA's next witness.**
23 **MR. DREHER: Mr. Minchey, will you raise your**
24 **right hand, please.**
25

1 JOHN REX MINCHEY,
2 having been duly affirmed under oath testified
3 as follows:
4 **MR. DREHER: Thank you. You may be seated.**
5 **And please begin by stating your name and address for the**
6 **record.**
7 **MR. MINCHEY: My name is John Rex Minchey,**
8 **245 Ranchview Road East, Jerome, Idaho.**
9
10 DIRECT EXAMINATION
11 BY MR. SNEED:
12 **Q. Good afternoon, Mr. Minchey.**
13 **What do you do for a living?**
14 A. I'm maintenance manager of Jerome Cheese.
15 **Q. Are you involved at all with the North Snake**
16 **Groundwater District?**
17 A. Yes.
18 **Q. Could you tell us how you're involved with the**
19 **North Snake Groundwater District?**
20 A. Well, in one aspect I'm a representative for
21 Jerome Cheese as a member of the North Snake Groundwater
22 District, as well as Unit 3 water users. And the other
23 aspect I'm on the Board of Directors.
24 **Q. As a member of the Board of Directors for the**
25 **North Snake Groundwater District do you interact with the**

1 other members of the district?
2 A. Somewhat, yes.
3 **Q. Could you tell us how you interact with those**
4 **members, generally?**
5 A. Uh, by answering, uh, phone calls, interacting
6 with them at meetings with questions, and talking with them
7 about their concerns and -- and, uh, stuff in the areas
8 concerning water.
9 **Q. How often do you have meetings for your**
10 **membership?**
11 A. Uh, for the total membership we have an annual
12 meeting, uh, plus an annual budget meeting, and we have had
13 two or three emergency or, uh, other meetings.
14 **Q. Do you have open meetings periodically,**
15 **though, for the members to attend if they wish?**
16 A. We have, uh, monthly board meetings that
17 anyone can attend.
18 **Q. Do you know approximately how many members**
19 **belong to the North Snake Groundwater District?**
20 A. There is approximately 400 to 410.
21 **Q. And do you know how many acres are**
22 **collectively held by the members within the North Snake**
23 **Groundwater District?**
24 A. To the best of my recollection, it's around
25 105- to 110,000.

1 **Q. Do you recall last spring and early summer**
2 **when the Department issued its two delivery call Orders**
3 **with respect to the Blue Lakes delivery call and the**
4 **Clear Springs delivery call?**
5 A. Yes, sir.
6 **Q. And did there come a time when you discussed**
7 **those Orders with members of your groundwater district?**
8 A. Yes, sir.
9 **Q. And what was their general reaction to those**
10 **two Orders?**
11 A. Well, their general reaction was, uh, how can
12 this be, but we'll, uh -- we'll do what we have to do to
13 mitigate so that we can continue to farm.
14 **Q. And what specifically did those two Orders**
15 **require your members to do last year in order to avoid**
16 **involuntary curtailments?**
17 A. Uh, voluntary curtailment.
18 **Q. Anything else?**
19 A. Uh, continuing with the, uh, conversions and,
20 uh, basically that's it.
21 **Q. Did the Orders alter the total acres that your**
22 **members were allowed to farm last year?**
23 A. Not to my recollection.
24 **Q. Did the Orders require that -- or was it a**
25 **result of those Orders that some of your members converted**

1 **groundwater irrigated acres to surface water irrigated**
2 **acres last year?**
3 A. I believe that helped to facilitate some of
4 the additional conversions that happened in 2005. The
5 largest thing that the Orders did is facilitate a voluntary
6 curtailment of around 8,000 some acres, I believe.
7 **Q. With respect to the conversion water last**
8 **year, who sold that water to North Snake Groundwater**
9 **District?**
10 A. It was a, uh -- different places. Water was
11 rented from Bell Rapids. From, uh -- surface water users
12 up in the, uh, 110, 120 Water District area, uh, rented
13 some water, I believe, from Pocatello. Different places
14 like that we worked with Idaho Groundwater Appropriators
15 for that water.
16 **Q. Do you know how many total acre-feet your**
17 **members purchased last year in surface water for their**
18 **conversion projects?**
19 A. It seems to me like it was in excess of
20 80,000, but for just the conversions --
21 **Q. Yes, just last year's conversions.**
22 A. For just the conversions and the
23 Sandy Pipeline was 40 thousand plus.
24 **Q. Do you recall roughly how much you paid or**
25 **your members paid per acre-foot for that replacement water**

1 **just for the general range?**
2 A. To the best of my knowledge -- and we didn't
3 pay the same amount per acre so it varied somewhere between
4 8, and 10 and 11 an acre-foot.
5 **Q. How was the surface water delivered to your**
6 **members conversion projects last year?**
7 A. Northside Canal Company canals.
8 **Q. Did you have a contract with them to do that**
9 **or was it --**
10 A. We have an agreement, yes.
11 **Q. Was it a handshake agreement or a written**
12 **agreement?**
13 A. Well, it's more in writing, because, uh, they
14 require us to request that they deliver our water, and they
15 request from the Department the approval of the Department
16 to deliver the water, so it's all writing.
17 **Q. And how much did Northside Canal Company**
18 **charge the Water District for delivery of that surface**
19 **water to conversion projects?**
20 A. That's called a "willing fee" and that's three
21 dollars per acre-foot.
22 **Q. Do you know how many acre-feet of surface**
23 **water were actually delivered by Northside Canal Company to**
24 **the conversion projects in your district?**
25 A. There was somewhere close to 2,500.

1 **Q. And I think you said earlier that there was,**
2 **roughly, 40,000 acre-feet that were diverted for conversion**
3 **projects and the Sandy Pipeline; is that correct?**
4 A. That's correct.
5 **Q. And do you remember what proportion of that**
6 **was diverted for the conversion projects and not the**
7 **Sandy Pipeline, roughly?**
8 A. There was, uh, about 10,000 delivered -- uh,
9 diverted -- probably 15,000 -- 13,000 diverted for the
10 Sandy Pipeline, considering the losses and all. And there
11 was -- the balance of that was delivered -- was diverted
12 for the conversions.
13 **Q. Okay. So, roughly, 26- to 27,000?**
14 A. 27 something -- 28,000.
15 **Q. And so out of that 26- or 27,000, you said**
16 **roughly about 20,000 was delivered to --**
17 A. Our accounting was about 20,400 and some, I
18 believe, actual delivery.
19 **Q. Do you have an idea what happened to the**
20 **difference; the 6,000 or so difference between the two**
21 **numbers?**
22 A. Um, yeah. We're charged a 30 percent, uh,
23 seepage fee on any water that's put in the canal -- all
24 farmers are. All irrigators are charged a 30 percent loss
25 fee. When it's diverted from Milner to wherever you

1 divert, you lose 30 percent.
2 **Q. Is that pretty standard?**
3 A. That's standard as far as everything I know.
4 **Q. Do you know whether the Department gave**
5 **Northside Groundwater District, through the North Snake**
6 **Groundwater District, any mitigation credit for those**
7 **losses in the canal?**
8 A. Not in anything I have been able to tell in
9 the documentation.
10 **Q. And when did you first discover that they were**
11 **not giving any credit for those losses?**
12 A. Sometime between May 12th and May 16th, when
13 we received the, uh, compiled data from the Department
14 telling us what the conversions and the, uh, idled acres
15 had contributed to the mitigation plan. On the 16th we
16 discussed that in a Board meeting at length.
17 **Q. And that's May 16th of this year?**
18 A. May 16th, 2005.
19 **Q. 2006?**
20 A. '06. Thank you. I'm not nervous.
21 **Q. And when you said we discussed this at length,**
22 **was that the Board members discussed it or --**
23 A. The members of the North Snake Groundwater
24 District Board, yes.
25 **Q. Were there any of the members present at that**

1 meeting?
2 A. Yes, there was.
3 **Q. And do you recall how some of them may have**
4 **reacted to that information that the Department was not**
5 **going to give credit for those seepage losses?**
6 A. Well, I don't understand why that wouldn't be.
7 They're going into what's believed direct recharge. And --
8 and that's going directly into the aquifer. I mean, that's
9 the whole thing here is building up the aquifer.
10 Why wouldn't we get credit for it? We paid
11 for it, paid dearly for it, and got zero credit for it as
12 far as we knew. It was -- it was very -- very -- I
13 wouldn't say contentious among the group, but very
14 contentious toward the decision.
15 **Q. Last year did your members or any of your**
16 **members convert any acres to surface irrigation which**
17 **received no mitigation credit, because they weren't in a**
18 **formal conversion project submitted to the Department?**
19 A. Personally, I only know that I have been told
20 there was some -- some independent conversions, and those
21 were not handled by North Snake Groundwater District as
22 conversion projects. More so they was handled by the
23 independent farmer and -- who had availability to either
24 rent water or had water from other places that he would
25 move from Northside Canal Company and dry up his well.

1 They weren't very well documented, uh, or they would have
2 been in the, uh -- in the, uh, conversion, uh, information
3 we submitted.
4 **Q. Do you know if any of your members**
5 **accidentally submitted acres as voluntary curtailments,**
6 **when, in fact, they should have been submitted as**
7 **conversions?**
8 A. I believe that, uh, through the records, uh,
9 that there was some case of that -- limited; very, very,
10 very limited, though.
11 **Q. To your knowledge, did anyone at the**
12 **Department contact any of the members of the North Snake**
13 **Groundwater District to inform them of these potential**
14 **problems with the data that they submitted?**
15 A. Not to my knowledge.
16 **Q. Moving on to the voluntary curtailments -- or,**
17 **excuse me, I'm going to ask a couple other things about**
18 **the, uh, conversion projects.**
19 **Did you hear Ms. Yenter testify earlier this**
20 **morning that she had some difficulties trying to assess**
21 **credit for certain acres in the district because they had**
22 **inaccurate measurement devices?**
23 A. Yes.
24 **Q. And did Ms. Yenter ever tell you that she**
25 **was -- or any of the groundwater district members, that she**

1 **was having problems with these measuring devices?**
2 A. Yes, she did. And she sent letters out and,
3 uh, in particular, uh, we had to install hour meters on two
4 of our wells, in particular at Jerome Cheese, because, uh,
5 of the conversion projects and not being able to use the
6 PCCs, because of booster pumps and stuff.
7 **Q. So after Ms. Yenter told you about these**
8 **issues and you put -- did you say flowmeters?**
9 A. Hour meters.
10 **Q. Hour meters on these wells, to your knowledge,**
11 **did Ms. Yenter or the Department revisit those locations to**
12 **try to make an assessment of whether credit could be given?**
13 A. I don't know that our site was revisited at
14 all, no. I don't remember -- I know I submitted a letter
15 to North Snake Groundwater District that, uh, we would, in
16 fact, do what she requested.
17 **Q. Do you know, roughly, what time of year you**
18 **did that?**
19 A. That was after the first of July sometime.
20 **Q. Okay. Now, moving on to the voluntary**
21 **curtailments last year, do you know approximately how many**
22 **acres your members voluntarily curtailed in 2005, in an**
23 **effort to provide water to Blue Lakes and Clear Springs?**
24 A. Well, I do know that there was some 8,000 plus
25 acres of Northside Canal -- or North Snake Groundwater

1 District acres that we submitted to the district as -- to
2 the Department as curtailed acres.
3 **Q. And do you know how many of those acres --**
4 **roughly, 8,000 acres were accepted by the Department as**
5 **voluntary curtailment mitigation?**
6 A. A ridiculous 25 percent.
7 **Q. Why do you say "ridiculous"?**
8 A. Because, very personally, I worked with
9 "Angie" Leavitt side by side putting those together -- the
10 information that we got from the farmers -- checking water
11 rights, checking maps -- checking these and putting them
12 all together. And to only get 25 percent credit on the
13 work that what did, that -- we must be really off base on
14 checking everything out. Now, there were some mistakes
15 made, but for the whole of it, I think that Angie put a
16 very complete package together and a lot more of that
17 acreage should have been accepted.
18 **Q. When did you first discover that the**
19 **Department was not going to give credit for roughly 75**
20 **percent of those?**
21 A. Well, it was brought to my attention on about
22 the 13th of May when Angie brought me to my work a printout
23 and says "Help me. We only got credit for 25 percent of
24 everything we did. What can we do?"
25 **Q. And did you take that information to the**

members?
A. That information -- uh, we had a meeting -- a Board meeting on the 16th, discussed it in depth and, uh, then there was a meeting called -- a special meeting called within a week or two of that. I can't remember the exact date of that meeting.
Q. Do you recall how any of your members reacted to that news?
A. Well, I know how some of the members reacted during the Board meeting that we had. Some of them says "Well, if this is the way we're going to be treated, we won't dry up another acre for this because we don't get credit for it." Others said "What do we do? We don't know what to do? If we do everything we're asked, we don't get credit. Why should we dry up?"
Q. Did you hear questioning testimony earlier today regarding the unusually wet spring last year?
A. Yes.
Q. And are you aware yourself of any instances within the North Snake Groundwater District where a crop might have fully matured on voluntarily curtailed acres without any artificial irrigation?
A. Yes.
Q. And did you hear Ms. Yenter's testimony earlier this morning that she tried to assess those

situations and had some difficulties doing that?
A. Yes.
Q. To your knowledge, did Ms. Yenter contact any of your members where those situations might have arose to try and gather some additional information about whether those acres had been artificially irrigated?
A. Not to my knowledge.
Q. Did your members -- generally, did any of them voluntarily curtail acres in 2004?
A. Yes.
Q. What about in 2003?
A. I believe so. I'm not positive on that. I believe they did.
Q. And did you hear testimony earlier this morning, uh, about the Department not getting credit for acres that were dry in 2005, if they were also dry in 2004?
A. Yes, I did.
Q. And at the time that your members and yourself left acres dry last year in 2005, or determined that's what you were going to do, did you believe that these acres would receive curtailment credit even if they had not been irrigated in 2004?
A. It was -- it was my understanding that any acres that was part of a mitigation plan that was dried up would receive credit.

Q. And did you, at some point, inform your membership that they were not going to receive credit for those acres they dried up last year if they were dry in 2004, as well?
A. I believe that information was given in the, uh, meeting after the 16th of May.
Q. And do you recall how some of your members reacted to that news?
A. I could only speak by hearsay. I wasn't at that meeting.
Q. Okay. Do you recall hearing after the fact how some of the people reacted?
A. Not very happy. In -- in -- in an instance where I sat in a meeting on the CREP, uh, it was -- it was very plain that there was people who had not irrigated 2004 and 2005, for the purpose of mitigation. And if they didn't irrigate 2004, 2005, CREP wouldn't be available to them. And that upset some of the members visibly in the meeting. And the advice there from FSA was "You better get some land wet. You better get pumping on it this year."
Q. So if your members had known or had realized last spring that they would receive no credit for drying up acres in 2005, if those same acres were dry in 2004, do you think some of them would have potentially irrigated those acres last year?

A. Absolutely.
Q. So now that your members are aware that the Department is likely not going to give credit for acres that have been left dry for consecutive years or the years prior to a mitigation plan being filed, do you think some of those members will begin irrigating those acres again with groundwater?
A. Yes.
Q. Did you hear Ms. Yenter's testimony earlier today with respect to endguns?
A. Yes.
Q. And did you hear her testify -- and I'm summarizing here -- that, in her opinion, turning off the endguns does not cause any less water to be diverted from the pump?
A. I heard that.
Q. And do you agree with that testimony?
A. Not entirely.
Q. And can you tell me why you do not agree with that entirely?
A. Well, in -- in -- in the, uh, fact of our pivots at Jerome Cheese, which I'm very familiar with, uh, some of the packages on them that we have put on allow a certain GPL. And, uh, when the pivots on -- when the endguns are on or off, they don't change. So the net water

1 going out of the pivot changes. It decreases when the
2 endgun is off. That means there's less water put out, I
3 mean.
4 **MR. SNEED: Thank you, Mr. Minchey. That's**
5 **all the questions I have for right now.**
6 **THE WITNESS: Okay.**
7 **MR. DREHER: Mr. Steenson.**
8
9 CROSS-EXAMINATION
10 BY MR. STEENSON:
11 **Q. Mr. Minchey, you are a representative of the**
12 **North Snake Groundwater District, correct?**
13 A. Yes, sir.
14 **Q. And not, in any respect, a representative of**
15 **the Magic Valley Groundwater District?**
16 A. That is correct.
17 **Q. So when you talk about 25 percent of the acres**
18 **being recognized, you're referencing 2,144 acres recognized**
19 **of approximately 8,500 submitted acres, correct?**
20 A. I'm speaking of the North Snake Groundwater
21 District submitted acres.
22 **Q. And you have been asked a number of questions**
23 **and given a number of answers about your members**
24 **understanding -- their reactions -- your members, I take it**
25 **that you understand that their groundwater rights are**

1 **hydrologically connected to the Thousand Springs**
2 **(inaudible), correct?**
3 A. I would believe that's a common knowledge.
4 **Q. And I take it your members are aware that my**
5 **clients, Blue Lakes Trout Farms, and others I represent,**
6 **have water rights to those springs below Milner?**
7 A. Yes.
8 **Q. And you're aware that a number of those**
9 **springs are substantially short in their delivery to the**
10 **water (inaudible)?**
11 A. That's what the Orders tell us.
12 **Q. Now, in the questions you were asked about**
13 **your members' motivation in terms of they understood they**
14 **wouldn't get credit if they wouldn't dry up acres -- if I**
15 **could ask this: Do your members understand and believe**
16 **that if they don't perform mitigation they will be in**
17 **voluntary curtailment -- or at least in some groundwater**
18 **(inaudible)?**
19 A. That's, uh -- that's the word that we try and
20 encourage them to understand, yes.
21 **Q. Now, with respect to 2004 use or nonuse I've**
22 **asked previous witnesses -- and I'll ask you as well --**
23 **about this portion of the groundwater users plan for**
24 **providing replacement water. And you've probably heard me**
25 **ask these questions. And this is at Page 5 of that plan in**

1 **which there's a sentence that says "Both districts are in**
2 **question to written notices that all district members**
3 **reduce their groundwater-irrigated acres by 10 percent as**
4 **compared to their 2004 irrigated acres to provide**
5 **documentation."**
6 **Doesn't that say that plans are submitted**
7 **proposes as an alternative for involuntary curtailment,**
8 **voluntary curtailment of acres that were actually irrigated**
9 **in 2004?**
10 A. The -- yes. With the caveat that once acreage
11 is put into mitigation it's -- it's accounted for, it's
12 credited.
13 **Q. And how many of the 6,000-some acres are you**
14 **contending were -- should have gotten credit for, and that**
15 **you didn't, because they were in mitigation plans in 2004?**
16 A. I don't remember the exact number of acres.
17 Um, if I could look at the, um, sheet that explains the
18 detail, I could tell you. Is it an exhibit?
19 **MR. SNEED: Look at Exhibit 1, Mr. Minchey.**
20 **It's Attachment A.**
21 **THE WITNESS: It would be, uh, item No. 5 --**
22 **eligibility code No. 5, where there was, uh, 1,010 acres**
23 **submitted that was not given any credit.**
24 **Q. (BY MR. STEENSON) There were in mitigation**
25 **plans, then, in 2004; is that correct?**

1 A. I do not know that all 1,010 was in mitigation
2 plans, but there was acreage in that that was in mitigation
3 plans, to my knowledge.
4 **Q. Have you, or someone else with the Northside**
5 **Canal Company, tabulated the number of acres that were in**
6 **mitigation plan in 2004, that you believe should have**
7 **received -- should have been eligible?**
8 A. We -- we have started to look at that, but we
9 just got the information the, uh, 13th -- the 12th of May,
10 and it takes a little while to decipher all of it.
11 **Q. So I take it that that information verifying**
12 **the acreage from 2004, not irrigated during that year in**
13 **the data mitigation plan, that wasn't clear from your prior**
14 **submission to the Department?**
15 A. To my knowledge, I -- I don't know for sure
16 whether it was clear or not; not by what I did. But it
17 could have been clarified by what "Angie" did.
18 **Q. And you are going through the process now of**
19 **developing some kind of information to tabulate or clarify,**
20 **again, the number of acres in the mitigation plan in 2004**
21 **and not irrigated that year 2005?**
22 A. Our plan is to go through every one of these
23 and see what we can do on every one of them that was turned
24 down -- every acres. Now, whether it's being done right
25 now or not -- we're in the middle of budget, so, uh, we're

1 correct number. It's in one of these exhibits, I think.
2 **Q. Hold on a second. I'm going to take a look at**
3 **the exhibit to verify that.**
4 **So when you discovered that the Department was**
5 **going to give you credit for, roughly, 38 percent of those**
6 **acres, did you convey that information to your members?**
7 A. Some of that's been conveyed to the membership
8 that all of it was not -- all of the curtailment was not
9 accepted.
10 **Q. And how did you go about telling your members**
11 **about that?**
12 A. Well, we've -- because we had been going
13 through trying to determine each one, we announced it at
14 one of our meetings that we didn't have all of the
15 curtailment from the previous year accepted.
16 **Q. And how did your members react to that news?**
17 A. Well, not real well, but -- but they, you
18 know -- but we told them we were going to try to look into
19 it farther and try to work to getting it more accepted.
20 **Q. Did you hear questioning in testimony earlier**
21 **today, and just a few minutes ago with Mr. Minchey,**
22 **regarding the unusually wet spring last year?**
23 A. Yeah. It was exceptionally wet.
24 **Q. Are you aware of any instances within the**
25 **Magic Valley Groundwater District where a crop might have**

1 **fully matured on voluntarily curtailed acres without any**
2 **artificial irrigation?**
3 A. Yes. Because most of that -- a lot of the
4 acres were planted before an Order came out, so there was
5 some acres that came out fairly well with the --
6 **Q. I think those Orders came out in mid-May --**
7 A. Right.
8 **Q. -- and June. So the crop was already in the**
9 **ground?**
10 A. Right. And -- and with an exceptional wet
11 period there's . . .
12 **Q. Did you hear Ms. Yenter's testimony earlier**
13 **today that she had some difficulty assessing some of those**
14 **situations --**
15 A. Yes.
16 **Q. -- because it was a wet spring?**
17 A. Yeah. And that -- yeah, I can have -- I can
18 see where that would be difficult.
19 **Q. To your knowledge, did Ms. Yenter ever contact**
20 **any of your members when these situations arose on their**
21 **ground to maybe try and gather some additional information**
22 **about whether those acres had been artificially irrigated**
23 **or not?**
24 A. Um, to my knowledge she hadn't -- I know she
25 did -- I know there was some on-the-ground inspections, but

1 just to my knowledge there -- but that's not to say that
2 she didn't with the individual members.
3 **Q. Did any of your members voluntarily curtail**
4 **acres in 2004?**
5 A. Yes.
6 **Q. And what about in 2003 or 2002?**
7 A. Yes. Starting in 2002 and 2003, we were under
8 the stipulated agreement, which was a two-year agreement,
9 and at that time we had to cut power consumption -- well,
10 we had to cut water use and it was tied -- we either had
11 to find the replacement water, which we were not able to
12 find, and then we -- so we had to cut water usage, which
13 was tied to power consumption. And quite a few folks, uh,
14 turned off some, you know, pivot corners and a few things
15 like that to decrease their power consumption.
16 **Q. And did you hear testimony earlier today and**
17 **from the Department witnesses this morning about the**
18 **Department's decision to not give credit for any acres that**
19 **were left dry in 2005, if they were also left dry in 2004?**
20 A. Yes.
21 **Q. And at the time that your members made that**
22 **decision last year to keep those acres dry in 2004, did you**
23 **believe that they were going to receive credit --**
24 A. We -- we were -- as to what the Director had
25 read, we were under the assumption if they had laid out in

1 the -- for their mitigation in, uh, 2004, which was the
2 year we had our agreement -- let's see. 2002, 2003, was
3 the stipulated agreement. Then we had had agreement from
4 the Hall of Mirrors from 2004, during those years. And so
5 we -- you know, we assumed that's what we had been doing
6 during that time.
7 **Q. So your assumption, then, or your**
8 **understanding was, then, uh -- um, in accordance with the**
9 **language that the Director --**
10 A. Right.
11 **Q. -- read a few minutes ago?**
12 A. Right. Except that for the 2002, 2003 -- see,
13 those weren't tracked by acres. They came back to the --
14 they came back to the power usage on those years.
15 **Q. And what was your understanding of those acres**
16 **with respect to mitigation in 2005?**
17 A. Well, we understood that if you laid the acres
18 out to save -- because when you lay the acres out you're
19 not lifting the water -- you know, you're not doing that.
20 And that's how we achieved our -- that's how we achieved
21 our -- our, uh, reduction in pumping.
22 **Q. Just to clarify, when you say "laid the acres**
23 **out," you're referring to not irrigating?**
24 A. Right.
25 **Q. As a Board member for the Magic Valley**

Groundwater District, did you have occasion to tell your members that they were not going to receive credit for -- or did not receive credit for certain acres that they laid out in 2005, which were also dry in 2004?

A. We -- we have not -- that hasn't been communicated to all the members yet, because of the -- the time we have been working at it. But that's an issue that if -- if, uh, the membership knows they're not getting credit in '05, and there's not credit on it until they get them wet, then . . .

Q. So with respect to the members you have spoken with or the Board has spoken with, what has been their reaction to that information?

A. Well, some of the folks say if we're not going to get credit then -- then we'll get 'em wet. If we're not getting credit for the mitigation then we might as well irrigate them -- or get them in a position where we can get mitigation for 'em.

Q. So if your members had known last spring that they were not going to receive credit for drying up acres in 2005, that may have also been dry in 2004, you think some of them would have irrigated last year?

A. Oh, definitely. Most definitely. We heard enough -- we heard enough from our membership about -- about the land out of the ground that they most definitely

would have.

Q. Did you hear Ms. Yenter's testimony earlier this morning about the effects of shutting off the endguns?

A. Yes.

Q. And did you hear her testify that, in her experience, shutting off the endguns does not have any effect on the amount of the water diverted from the pump?

A. Yes. I heard that -- I heard that testimony.

Q. And do you generally agree with that testimony or disagree with that testimony?

A. I would probably disagree, uh, for two reasons. One of them is an endgun -- most big endguns are a hundred gallons a minute. Uh, they'll cover, uh -- you know, they will cover a portion of each corner.

For example, a standard pivot with a long endgun picks up 127 acres. If you shut the endgun off, you pick up 119 -- 18 or 19, depending on the overhangs. But they -- so you do cut some acreage out of each corner.

When you shut off the pivot most -- now, I'm not saying this -- this isn't inclusive of all pivots, but most pivots have low-pressure packages so each -- each outlet has a pressure regulator on it. So if you increase the system pressure they're set -- they're designed to, uh, put the -- put a constant pressure with a nozzle.

Q. So shutting off the endgun would not result in additional water coming out of those nozzles?

A. It shouldn't, you know, theoretically mixed. I'm not a -- Idaho Power doesn't think so, because they pay to have those replaced. But the pressure nozzles are in place to take into compensate for different elevations in ground, also. So that's why, theoretically, they'll maybe shut off an endgun. The water -- your main system stays constant with -- with a low pressure system.

MR. SNEED: Thank you, Mr. Stevenson. Those are all the questions I have for now.

MR. DREHER: Mr. Steenson.

CROSS-EXAMINATION

BY MR. STEENSON:

Q. You can turn off the endgun and what happens to the pump?

A. You build pressure.

Q. This changes the amount of water (inaudible) --

A. Right. Or you will be -- under a center pivot, if you shut the endgun off, if you're -- you have the pressure regulators on each drop, and they hold it in a constant range. So you'll shut off the -- you'll shut off the endgun and build pressure -- you'll build more pressure

at the pump, but the regulator should take in compensation of the --

Q. And that's with that kind of a system?

A. Right.

Q. With what percentage of --

A. In Magic Valley I would say it's probably 98 percent of the systems, or what they call a "low pressure drop system."

Q. And i didn't bring it, and it seems like so long ago that I can't remember what -- in the 2004 agreement -- Hall of Mirrors --

A. Yeah. Hall of horrors, or whatever you call them.

Q. I forget what Magic Valley agreed they'd provide --

A. We agreed to provide mitigation. We agreed, as part of a -- you were all there. We were looking for kickers at that time to -- and we agreed to curtail some acreages. So what we did is, we met with our membership. And we don't have the ability to mandatorily say we have got to dry ex number of acres. So we asked our membership voluntarily to get us over the hump.

Q. How many acres would you say?

A. We ended up -- I think a little over 6800 acres.

1 in 2000. In fact, the Department gets those -- that
2 information before we do from Idaho Power.
3 **MR. SIMPSON: That's all the questions I**
4 **have.**
5 **MR. DREHER: Mr. Sneed, Redirect.**
6 **MR. SNEED: I have nothing further.**
7 **MR. DREHER: All right. The witness is**
8 **excused.**
9 **So if I understand, you have got one more to**
10 **go. We will take a ten-minute break and then we'll finish**
11 **up.**
12 **(A recess was taken.)**
13 **MR. DREHER: All right. Mr. Fereday.**
14 **Mr. Rassier, Mr. Steenson, we're ready to**
15 **begin.**
16 **All right. Mr. Fereday.**
17 **MR. FEREDAY: We call Dr. Charles Brendecke.**
18 **MR. DREHER: Dr. Brendecke, if you could raise**
19 **your right hand.**
20
21 CHARLES M. BRENDECKE,
22 having been duly affirmed under oath, testified
23 as follows:
24
25 **MR. DREHER: Thank you. You may be seated.**

1 **Begin by stating your name and address, please.**
2 **DR. BRENDECKE: My name is**
3 **Charles M. Brendecke. My work address is 1002 Walnut**
4 **Street, Boulder, Colorado.**
5
6 DIRECT EXAMINATION
7 BY MR. FEREDAY:
8 **Q. Dr. Brendecke, Exhibit 5 is your resume. Is**
9 **that reasonably current?**
10 A. It's reasonably current. It's probably from a
11 submittal of a year ago or so. I have a Idaho professional
12 registration, at this point, that's not shown on here.
13 **Q. And what is that Idaho registration?**
14 A. Professional Engineer registration.
15 **Q. Okay. What is your familiarity with the**
16 **subject matter of the Blue Lakes and Clear Springs delivery**
17 **calls and the orders that have been issued in those cases?**
18 A. I've been involved in, uh, I would say the
19 process of looking at these Orders and helping the
20 groundwater districts develop their response to them over
21 the last several years.
22 **Q. Were you involved, also, in the development of**
23 **the Model or the Model calibration effort that Dr. Wylie**
24 **discussed earlier?**
25 A. Yes. I was one of consultants present on the

1 Modeling Committee.
2 **Q. Did you hear Dr. Wylie speak about the**
3 **relative benefits of shutting off a well and keeping it off**
4 **for one season, as opposed to keeping it off for multiple**
5 **seasons?**
6 A. I did hear that, yes.
7 **Q. I note that we have Exhibit 6 here that I**
8 **believe relates to that.**
9 **Can you tell us what that is? Let me make**
10 **sure you have the . . .**
11 A. This is an example of the effects of drying up
12 some land down in the -- near the Clear Springs Snake River
13 Farm area up on the rim. Water right WR367508 B was one
14 that was not allowed as credit as a dry-up acre, because it
15 wasn't irrigated in 2004 or -- and wasn't in a plan in
16 2004. Those were the numbers that -- or those were the
17 reasons stated for not allowing it.
18 And so the -- the point of this analysis was
19 simply to demonstrate the benefit that it has to that
20 reach -- the Buhl's Thousand Springs Reach. If it had been
21 irrigated in 2003, but then dried up in 2004, but not put
22 in a plan in 2004, it would -- and it wasn't irrigated in
23 2005.
24 So if it continued to not be irrigated it
25 would have the accumulated benefit shown in the -- on the

1 green line on this graph, uh, versus what would be the case
2 if it were just curtailed this year. And the point being
3 that something that's been off for three years has a
4 greater benefit to the Reach than something that's been off
5 for only a year.
6 If we looked at the actual cfs, or flow rate,
7 rather than the cumulative gain, it would have a similar
8 sort of trend, but there would be more amplitude changes on
9 it because it would be going on and off in more relation to
10 the pumping during the irrigation season and being off in
11 the wintertime. You can see that's in a subdued form on
12 this graph, because it's a cumulative graph.
13 **Q. Did you hear the testimony by several**
14 **witnesses concerning this 2004 issue? That is to say the**
15 **issue as to the disqualification of a well for credit**
16 **unless it was being pumped in 2004?**
17 A. Yes. There has been quite a bit of discussion
18 about that.
19 **Q. And the comments by, I believe, Mr. Minchey**
20 **and Mr. Stevenson concerning their efforts to more**
21 **accurately, perhaps, catalog the wells that have been off**
22 **for a period of time and, therefore, were not irrigated in**
23 **2004? Do you remember that?**
24 A. Yes. It sounds like they -- there's at least
25 the possibility of better documenting that some of those

that were off were in mitigation plans or set-asides.

Q. If the groundwater users are able to document some of those, I take it, then, that depending on the length of time that those wells actually had been off, they would be shown along this green line?

A. Or something similar to it, yes.

Q. Okay. I'd like to have you refer to Exhibit 7.

Could you tell us what this is, please?

A. Exhibit 7 is an excerpt of the Water District 01 storage report for 2005. I downloaded this from the District 01 Website, I think, on Thursday last week. This is not the entire report. It's the report that -- it's the portion of the report that speaks to storage allocations and storage deliveries to surface water users in the Blackfoot to Milner Reach.

About three pages back is Table 23. It's a similar stored water accounts table that's prepared every year for various Reaches. This particular table, No. 23, contains those surface water users in the Blackfoot to Milner Reach. And if you look on the left, there are the names of those diversions, and you'll see "Northside Twin F" at the bottom, which is the Northside Canal Company.

And if you then read across on this table

you'll see that at the beginning of the season the Northside Canal Company was allocated 838,530 acre-feet of storage water. This is what accrued to their storage water rights in 2005. They then -- a couple columns over to the right from that you'll see that they diverted -- or they used 514,262 acre-feet out of that allocation, which would leave them 324,267 over about the 6th column.

Then there's a column called "adjustments," and in that column it says "40,733 acre-feet." And there's a note "AR" that explains what that forty thousand plus acre-foot adjustment is.

Q. Now, is this the kind of information you routinely rely on in carrying out your duties for the groundwater users?

A. Yes. I've looked at a lot of these stored water accounts tables back to earlier years, as well.

Q. Have you found them to be reliable?

A. That's what we all rely on are these accounting records from Water District 01.

Q. And what is AR? What is its significance to you?

A. If you go back a couple more pages, then, there's an explanation of each of these footnotes. And on the last page, if you go down to note AR, that adjustment consists of 40,982 acre-feet of water provided by IGWA and

assigned to Northside Canal for Water District 130 conversions.

And then there's another adjustment of 249 acre-feet that's a natural flow correction. I haven't really dug into that too much. But the 40,982 was delivered to the Northside Canal Company so that it could provide water to the conversion acres in the Sandy Pipeline down in Water District 130.

Q. Okay. Have you reviewed Exhibit 3? And maybe you'll want to take a look at Exhibit 3.

I take it there is a relationship between Exhibit 3 and Exhibit 7?

A. Yes, there is. If you look at the last column on Exhibit 3, down near the bottom where it sums up the deliveries in acre-feet are 31,481, then there applies a 30 percent loss ratio, and it gets to 40,926, roughly, acre-feet total with the loss. That corresponds generally with the note "AR" on the storage account table that showed 40,982 exchanged to IGWA and assigned to Northside for conversions. I can't tell you exactly why it's 49,082 instead of 49,025.

Q. Okay. So the figure of 9,400 some odd acre-feet of delivery losses is reflected in Exhibit 3. Is it also reflected somehow in Exhibit 7? I take it, it is not?

A. Well, 40,000 -- in Exhibit 7, what Exhibit 7 tells me is that 40,982 acre-feet were diverted by Northside for delivery to conversions. What Exhibit 3 tells me is that 31,481 acre-feet were actually delivered to conversions in Sandy Pipeline. And the difference, which would be, roughly, 9,500 acre-feet of water, disappeared somewhere between the Northside Canal headgates on Milner Lake and the diversion points -- or the delivery points at Sandy Ponds and the conversion sites.

Q. So what, in your opinion, happened to that, roughly, 9500 acre-feet?

A. Well, I would expect that the vast majority of it became a conveyance loss and seeped into the ground through the bottom of the canal.

Q. Okay. Does it appear to be delivered to other shareholders for consumption by those shareholders?

A. Not according to these delivery records by the Northside Canal Company. I don't have any information that suggests it was delivered to somebody else. I have not seen any information that suggests it was delivered to anybody else.

Q. And before we go on to Exhibit 8, let's revisit Exhibit 6. Was this exhibit prepared at your direction or by you?

A. Yes.

1 Q. And what data was used to generate this chart?
2 A. We used the data from the -- actually, from
3 the spreadsheet that was prepared by the Department
4 describing the evaluation of the conversions. And we
5 applied the same methodology the Department has done for
6 evaluating dry-ups, which is to calculate the consumptive
7 use as the difference between precipitation and ET in that
8 model cell.
9 This happened to be a handy example, because
10 this entire parcel lies within the single model cell so it
11 was an easy one to do. So it's a combination of
12 information from that spreadsheet and from the basic model
13 files that we obtained from the Department for various
14 purposes.
15 **Q. So your firm runs the ESPA model for these**
16 **kinds of purposes?**
17 A. We do.
18 **Q. Would you refer to Exhibit 8, please, and**
19 **identify that?**
20 A. Exhibit 8 is a Water Management and
21 Conservation Plan for the Northside Canal Company prepared
22 by the company with some help from the Water User
23 Association and CH2MHILL. It's dated December 2003. We
24 obtained this document as part of the disclosure process
25 in -- in our looking through various documents in the

1 delivery call matter involving the Surface Water Coalition.
2 **Q. Okay. Does this document address canal**
3 **seepage, conveyance losses, spills; issues like that?**
4 A. It does. There are a few tabulations and
5 discussions in here about those aspects of canal operation.
6 And we might just look in particular at a couple of those.
7 If you want to go to Page 40, there's a discussion on
8 Page 40 in the middle on management of return flows. And
9 it talks about the canal company's goal to reduce return
10 flows to the Snake River by using sediment ponds and
11 wetlands, pump EX systems, and the like.
12 And it indicates that the canal company
13 measures return flows that are discharged into the
14 Snake River at 13 locations. And it states that in 2002
15 return flows that were not intercepted by these sediment
16 ponds and wetlands approximated 45 cfs. And over a 200 day
17 irrigation season that's about 18,000 acre-feet.
18 **Q. That compares to how many acre-feet diverted**
19 **into the canal?**
20 A. Roughly, a million.
21 **Q. You have looked, haven't you, at the**
22 **documentation -- or the -- at least references to the**
23 **30 percent conveyance loss number that has been discussed**
24 **in this hearing today?**
25 A. Yes.

1 **Q. Is that 30 percent a reasonable estimate of**
2 **seepage losses from the Northside Canal, in your opinion?**
3 A. Well, based on the other information I've
4 seen, it probably underestimates the losses in the
5 Northside Canal.
6 **Q. What other information have you evaluated?**
7 A. Well, there's a table in this report that gets
8 to this specifically, if I can find it in here. Page 33.
9 **Q. What does that table address?**
10 A. Well, based -- if you do the background
11 reading in the document, this is a water budget analysis
12 that was done as part of preparation of this report.
13 **Q. Was that Table 32 in the report?**
14 A. Table 32 is what I'm looking at, yes. And the
15 water budget analysis was done for three different example
16 years; a wet year, an average year, and a dry year. And
17 this is sort of a summary of that water budget analysis.
18 And if you compare the amounts delivered there
19 in the third row to the amounts diverted up in the top row,
20 you'll see that the loss is somewhere near half of what's
21 diverted.
22 Now, some of that goes to groundwater
23 recharge. That's explained elsewhere in the report. The
24 21,000 goes into some recharge ponds. That's really --
25 still ponds that contribute to recharge. So that might

1 have to come off the top of that calculation.
2 But, if anything, the data in this table
3 indicates to me that the losses in the canal system are
4 sufficiently high that it's reasonable to think that none
5 of that 30 percent -- the 9,500 acre-feet that we have been
6 talking about here that disappeared between the headgate
7 and the deliveries, I think it's vastly more likely that
8 that disappeared in the form of canal losses than got
9 delivered to other shareholders in the system. Because the
10 deliveries here -- uh, the losses, based on the information
11 in this table, are actually higher than that 70 -- or that
12 30 percent figure.
13 **Q. Is it reasonable to think that this entire**
14 **amount of loss -- this 30 percent, or 94- and 9500 feet,**
15 **could have been spilled back to the river?**
16 A. Uh, no. They would have measured that. And
17 it's not in Northside's interest to have that kind of spill
18 going on. They have indicated that their spills, in 2002
19 anyway, were on the order of a couple percent of their
20 diversion.
21 **Q. Others today have talked about the water being**
22 **commingled in the canal. If there were spills of this**
23 **conveyance loss figure, what would you expect them to be?**
24 A. Well, I would think -- you know, the water
25 molecules are all mixed in the canal. It's not some

1 selective molecules that are spilled. You know, what
2 molecules are spilled are the ones that are spilled. And
3 so I would apply the same fractional spill percentage to
4 that number as I would to the rest of the water from the
5 system, which is, you know, one or two percent.
6 **Q. Is one or two percent based on the 18,000**
7 **acre-foot versus one million --**
8 A. Roughly, that's correct.
9 **Q. -- acre-foot? Okay.**
10 **There have been references today to the Order**
11 **issued by the Director on June 7th, 2005, and specifically**
12 **to the statement that -- I'll quote here "When the canals**
13 **and ditches of Northside are fully charged and water is**
14 **already seeping into the ground, the addition of surface**
15 **water on top of the existing surface water flowing in the**
16 **canals and ditches will not significantly increase the**
17 **seepage from the canals and delivery ditches."**
18 **Do you remember that?**
19 A. Yes.
20 **Q. Do you have an opinion about whether that**
21 **assumption cancels your conclusion earlier that the vast**
22 **majority of this 9500 feet seeped into the aquifer?**
23 A. Uh, no. The molecules are all commingled in
24 the canal. There's no way to selectively have the
25 conversion deliveries floating on top of the other

1 molecules. When a canal leaks, it will leak all the
2 molecules equally. It doesn't discriminate.
3 **Q. Well, one of the things that I'm wondering**
4 **about is just the concept that both Ms. Yenter and**
5 **Dr. Wylie testified to, which is the concept that this**
6 **94- -- or 9500 acre-feet was put into the canal. And the**
7 **question, then, was "Where did it go?" And I didn't feel**
8 **like have a complete answer to that.**
9 **Do you feel that your view is any more**
10 **accurate based on what you have reviewed?**
11 A. Well, in -- I think it does. We know that
12 some of it got delivered, because that was measured. So we
13 know where some of it went. And since all the waters in
14 the canal -- or all of the molecules of water in the canal
15 are commingled, I would expect that those -- that 9400
16 acre-feet suffered the same fate that the, roughly, 400,000
17 acre-feet suffered between the total supply and that
18 delivered to the farm here in Table 32, which is largely
19 seepage into the ground.
20 **Q. In the June 7th Order in the Blue Lakes**
21 **delivery call case, the Department also states that IGWA**
22 **did not provide any information about the actual physical**
23 **seepage of surface water from the Northside Canal to**
24 **groundwater resulting from delivery of surface water to the**
25 **conversion acres in the Sandy Pipeline. The Department**

1 **goes on to say that they, the Department, cannot determine**
2 **the amount of replacement credit, if any, attributable to**
3 **seepage.**
4 **Do you have any comment about that conclusion**
5 **in the Order?**
6 A. Well, it would be physically impossible to
7 distinguish the seepage that occurs from the water diverted
8 for conversions from the seepage that occurs from any other
9 water going down the canal. So it's just not possible to
10 measure which of those molecules that have seeped out the
11 bottom of the canal are from the conversion delivery and
12 which are from the rest of the water running in the canal.
13 **Q. So is it, in your opinion, a reasonable**
14 **request, or would it be a reasonable request to require the**
15 **groundwater users to go beyond the kinds of materials that**
16 **you've already identified here to conduct some sort of a**
17 **seepage study on that 40,000 some odd acre-feet?**
18 A. Well, first of all, they couldn't do the
19 seepage study without the cooperation of the Northside
20 Canal Company. They're not -- they're just not in a
21 position to be able to go do their own seepage study of the
22 Northside Canal, because it requires all the information of
23 all the water that was ever delivered -- that was delivered
24 to any of the delivery points on the Northside, and all of
25 the spill numbers, and whatever was put in the spill pond.

1 And this is information that the groundwater districts
2 generally don't have. So there's one obstacle to doing
3 anything more on their own.
4 And it's not clear why they would want to do
5 that, because this kind of information is already here in
6 this report. The Northside Canal Company could conceivably
7 have other seepage studies that they've done. I've asked
8 Ted about that and been unable to locate them. But they
9 have done them in the past.
10 I guess the, uh -- then the second point, to
11 sort of get to the rest of the question, it seems like it's
12 just not feasible -- technically feasible -- for the
13 groundwater districts -- even if they did have the complete
14 cooperation of the canal company, all they would be able to
15 do is calculate the total loss from the canal. They could
16 not differentiate the loss associated with the water that
17 they've provided for delivery to conversions from any of
18 the other losses, or any other water that's being lost in
19 the canal.
20 **MR. FEREDAY: No further questions.**
21 **MR. DREHER: Mr. Steenson.**
22
23 CROSS-EXAMINATION
24 BY MR. STEENSON:
25 **Q. Dr. Brendecke, you downloaded this Exhibit 8**