

EXHIBIT B

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 Delivery Call).)
_____)

IN THE MATTER OF DISTRIBUTION OF)
WATER TO WATER RIGHT NOS.)
36-04013A, 36-04013B, AND)
36-07148 (SNAKE RIVER FARM);)
(Clear Springs Delivery Call).)
_____)

CONTINUED DEPOSITION OF KARL J. DREHER, P.E.

Volume II, Pages 158 - 404

November 1, 2007

REPORTED BY:

COLLEEN P. KLINE, CSR No. 345

Notary Public

1 THE CONTINUED DEPOSITION OF KARL J.
 2 DREHER, P.E., VOL. II was taken on behalf of the
 3 Blue Lakes Trout Farms, at the offices of the
 4 Idaho Department of Water Resources, located at
 5 322 E. Front Street, 6th Floor, Boise, Idaho,
 6 commencing at 8:20 a.m., on November 1, 2007,
 7 before Colleen P. Kline, Certified Shorthand
 8 Reporter and Notary Public within and for the
 9 State of Idaho, in the above-entitled matter.
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1 (Exhibits 78 through 82 marked.)
 2 KARL J. DREHER, P.E., VOL. II,
 3 previously first duly sworn to tell the truth
 4 relating to said cause, testified as follows:
 5 EXAMINATION
 6 QUESTIONS BY MR. STEENSON:
 7 Q. Good morning.
 8 A. Good morning.
 9 Q. Okay. We're back on the record. My
 10 name is Dan Steenson. I represent Blue Lakes
 11 Trout Farm in this matter. Karl, you remain
 12 under oath.
 13 Karl, could you turn in deposition
 14 exhibit books to Exhibit No. 4.
 15 A. (Witness complying.)
 16 Q. Do you recall the process by which the
 17 Department obtained authority for and from the
 18 SRBA Court to proceed with interim administration
 19 and form Water District 130 and other water
 20 districts?
 21 A. Certainly, I recall generally the
 22 process. I don't know whether I recall all the
 23 specific steps and the timeline.
 24 Q. Do you recall the State of Idaho filing
 25 a motion with the SRBA District Court seeking

1 authority --
 2 A. Yes.
 3 Q. -- from the court to conduct interim
 4 administration?
 5 A. Yes.
 6 Q. And this Exhibit 4 titled "Motion For
 7 Order of Interim Administration and Motion for
 8 Order for Order Expediting Hearing." I'll
 9 represent to you that the State describes the
 10 process that it has envisioned for interim
 11 administration.
 12 I would like you to turn, please, to
 13 page No. 7 -- actually, page No. 6, and read the
 14 text under the heading Roman numeral II at page
 15 number 6 through to the next section. And I
 16 don't mean read into the record. Read to
 17 yourself.
 18 A. Okay. What I'm looking at here,
 19 Exhibit 4, it says, "Motion for Order of Interim
 20 Administration," and there is no page 6. So I'm
 21 not sure I'm looking at the right thing. There
 22 is a brief in support --
 23 Q. I'm sorry. Turn to the "Brief in
 24 Support." You are right.
 25 A. (Witness complying.) All right.

1 water districts and the distribution of water
 2 thereunder will occur in accordance with the
 3 normal administrative mechanism created by
 4 Chapter 6, Title 42, Idaho Code."
 5 Can you describe what is meant by the
 6 normal administrative mechanism that is described
 7 in Title 42 of the Idaho Code?
 8 A. Well, this is a reference to, you know,
 9 the whole process that's outlined for the
 10 creation and the operation of water districts
 11 pursuant to Chapter 6. I mean, the normal
 12 administrative process is outlined in Chapter 6.
 13 Q. Okay. And could you summarize for us
 14 then, in your view, how water rights are normally
 15 administered in the water districts?
 16 A. Well, water districts have watermasters
 17 that function under the supervision of the
 18 director of the Department of Water Resources.
 19 And certainly, the director can delegate that
 20 authority to regional managers and such.
 21 But the water districts or the
 22 watermasters distribute water among rights in
 23 accordance with the instructions and the rules
 24 and that are issued by the director of the
 25 Department or its designee.

1 Q. The brief was covered by the motion in
 2 the exhibit.
 3 A. Okay. And what part now do you want me
 4 to read?
 5 Q. Turn to page 6, and under the heading
 6 Roman numeral II, read that section to yourself
 7 clear to the next page, Roman numeral III to the
 8 next section.
 9 A. (Witness reading.) Okay.
 10 Q. Are you in agreement with the process
 11 that's described in that section heading with
 12 respect to the anticipated administration of
 13 water rights?
 14 A. Well, the process for administering
 15 water rights is not dealt with in this section.
 16 It just talks about before you can administer,
 17 you have to have an accurate list.
 18 Q. And are you in agreement that the
 19 partial decrees that are discussed in that
 20 section represent an adequate list for the water
 21 rights for purposes of interim administration?
 22 A. Yes.
 23 Q. At the end of that section heading,
 24 there is a sentence that reads, "Upon entry of an
 25 order for interim administration, the creation of

1 Q. Okay. So normally, if a call or a
 2 request for delivery of water comes to a
 3 watermaster, what would a watermaster normally do
 4 as the next step?
 5 A. It depends on whether there has been a
 6 process established for administering those water
 7 rights. And certainly, in a surface water
 8 stream, generally that administration has
 9 occurred for some length of time, and the process
 10 is pretty mechanistic.
 11 Q. Can you describe it for me?
 12 A. Well, if there is a senior right that's
 13 not being filled, and as we talked about
 14 yesterday, the senior is in a position of
 15 diverting his -- whatever part of the right is
 16 not being filled, if he's in a position of
 17 diverting that water and applying it to
 18 beneficial use, then the watermaster would
 19 curtail a junior to supply that water.
 20 Q. And is that, though abbreviated, a
 21 complete summary of what the administrative
 22 process would be --
 23 A. No.
 24 Q. -- in terms of a surface water
 25 district?

1 A. No, that's not complete.
 2 Q. What's missing?
 3 A. Well, the watermaster would typically
 4 make these distributions, or change the
 5 distribution on a daily basis, and would go back
 6 the following day to reassess whether the senior
 7 was getting the water needed, or whether he was
 8 getting too much.
 9 Often when these changes are made, in
 10 some instances more water gets distributed to the
 11 senior than they are entitled to. So the
 12 watermaster makes adjustments, typically, on a
 13 daily basis until the proper distribution is
 14 obtained.
 15 Often, though not always, the
 16 watermaster presumes that the water provided to
 17 the senior will be beneficial use, and may or may
 18 not conduct an investigation. Certainly has the
 19 authority to conduct that kind of investigation,
 20 but often it's presumed, because the
 21 investigation has been conducted in some manner
 22 in the past.
 23 Q. And is the watermaster required to
 24 adjust headgates, because flows vary from day to
 25 day, week to week, and so forth?

1 Q. Yes. In other words, from one day to
 2 the next?
 3 A. That's correct.
 4 Q. Not necessarily during the course of a
 5 single day?
 6 A. That's correct.
 7 Q. And with respect to the water rights
 8 that watermasters administer in their normal
 9 process, they are represented, are they not, by
 10 decrees, licenses, and permits?
 11 A. Yes.
 12 Q. And in the normal administrative
 13 process, what does the watermaster do, if
 14 anything, to determine the amount of water that a
 15 calling senior is entitled to based on a decree,
 16 a license, or a permit?
 17 A. Well, because the investigation often
 18 has been made in the past as to how much water a
 19 senior needs, typically, the watermaster presumes
 20 that the quantity that's been licensed or decreed
 21 is the quantity that's needed, but not always.
 22 Q. Okay. So is it accurate to say that
 23 the watermaster does not question the amount of
 24 water stated in a decree or a license in terms of
 25 its statement of the entitlement of the water

1 A. Only in part. Because not only do the
 2 flows vary, but as the adjustments are
 3 made -- and it depends on the location, of
 4 course -- but there can be some length of time
 5 needed for the changes to sort of stabilize. But
 6 during the daily process, there can be variations
 7 in flow as well.
 8 Q. So I take it, specifically, in a
 9 surface water system, there can be di-yearly
 10 channels in flow; is that correct?
 11 A. That's correct.
 12 Q. And monthly changes in flow as well; is
 13 that correct?
 14 A. That's correct.
 15 Q. And I take it that the frequency with
 16 which the watermaster would adjust, change
 17 headgates would depend on the variations in flow;
 18 and assuming, of course, that the calling senior
 19 continues to need the water that they called for;
 20 is that correct?
 21 A. Not entirely. I mean, the variations
 22 in flow during a daily period are such that they
 23 are generally not large enough that would warrant
 24 the watermaster to go back and make an adjustment
 25 other than on a daily basis.

1 user to water presuming that the water user
 2 needs, or can put the water to beneficial use?
 3 A. No, I don't think that's true. I mean,
 4 the watermaster doesn't question the quantity
 5 that has been decreed as the maximum amount
 6 that's authorized to be diverted. But the
 7 watermaster could question whether that amount is
 8 needed.
 9 Q. And what kinds of investigations or
 10 queries might the watermaster make to determine
 11 whether or not the water is needed?
 12 A. Well, I mean, it's a very fact specific
 13 situation. And as I indicated, often the
 14 watermaster presumes that the full quantity is
 15 needed, but not necessarily. You know, in Water
 16 District 36 A, as an example, the watermaster
 17 could question whether a surface water right was
 18 fully needed by someone diverting from a spring
 19 before a junior would be curtailed.
 20 But, again, I think the typical
 21 operation in the surface water system is
 22 that -- unless there is some reason to question
 23 how much is needed, the watermaster would presume
 24 that the full amount authorized by the license of
 25 decree would be distributed.

1 Q. Now, the determination of the need
2 would involve, would it not, a consideration of
3 the use as authorized by the right; isn't that
4 correct?

5 A. Certainly.

6 Q. In other words, for irrigation the
7 question would be: You're calling for water.
8 Are you, in fact, going to apply the water to
9 fields that you intend or need to irrigate?

10 A. Could include that, yes.

11 Q. What else might it include?

12 A. Well, some of the systems have multiple
13 uses, for example. So in some instances, I mean,
14 we have canals that also have hydropower
15 facilities on them. And so there could be an
16 inquiry as to what purpose is the water being
17 diverted? Is it to irrigate fields? And if the
18 water isn't needed for irrigation, it still may
19 be authorized to be diverted for hydropower
20 purposes.

21 Q. Let's take aquaculture, for example. I
22 assume you recall the distribution of water that
23 you instructed the watermaster of Water District
24 130 to effectuate as between Clear Lakes and
25 Clear Springs Foods facility?

1 A. Yes.

2 Q. And so far as you know, it's ongoing
3 today; correct?

4 A. Correct. And the watermaster is
5 supposed to -- I don't recall if it was on a
6 monthly basis or what time period, but the
7 watermaster in that case, because both parties
8 have a need for the water, the watermaster is to
9 continuously, or on a periodic basis continuously
10 confirm that the water is, in fact, being
11 beneficially used.

12 Q. Now, does the determination of need, or
13 the determination that the water will be put to
14 beneficial use, vary depending upon the source of
15 supply?

16 A. Not so much depending upon the source
17 of supply. It depends on the history of
18 administration. If water rights had been
19 administered for long periods of time, you know,
20 there tends to be less inquiry as to the need,
21 and whether the water is being put to beneficial
22 use.

23 Q. Sure. Is that because there is an
24 understanding within the Department of the
25 history of the use, and the use going forward?

1 A. Yes.

2 Q. And do you recall the determination of
3 need that your instructions directed the
4 watermaster to conduct in that case?

5 A. Well, initially, when the call was
6 first made, I asked for a statement from Clear
7 Springs that the water was needed and would be
8 put to beneficial use. And then we followed that
9 up after the distribution was made. I asked the
10 watermaster to go out and confirm that the water
11 was being beneficially used.

12 Q. And did that occur to your satisfaction
13 in that case?

14 A. Yes.

15 Q. And in that case, the order
16 contemplated ongoing administration; did it not?

17 A. It did.

18 Q. And contemplated ongoing administration
19 in order to provide Clear Springs continuous
20 delivery of its 200 cfs right at that location;
21 isn't that correct?

22 A. Uh-huh, that's correct.

23 Q. And that did occur from the date of
24 your instructions through the last date of your
25 employment with the Department; did it not?

1 A. Well, there is an understanding that
2 historically that quantity of water has been
3 beneficially used.

4 Q. But the examination of need, I take it,
5 wouldn't change, for example, if the water right
6 was from a surface water supply or a ground water
7 supply?

8 A. The principle is the same regardless of
9 the source of supply.

10 Q. And is the application within the
11 Department the same, the application, that is, of
12 that principle?

13 A. It is the same, but -- the principle is
14 the same. But its application, at least for
15 ground water, as rights begin to be administered
16 that historically have not been administered,
17 there may be a more extensive inquiry, initially,
18 before water is redistributed from a junior to a
19 senior.

20 Q. Do you mean then that there would be a
21 more extensive inquiry into -- because ground
22 water rights have not been historically
23 administered -- into the need for, and beneficial
24 use of water by ground water rights that have not
25 previously been administered?

1 A. No, both ground water rights and the
2 senior rights.

3 Q. But by "more extensive," you don't mean
4 that the nature of the inquiry would change?
5 It's still an inquiry into how the water is used,
6 and will the water be applied to the use as
7 authorized by the right; correct?

8 A. Right. And as time passes, and there
9 is more experience with the administration,
10 presumably the inquiry would lessen just as it
11 has in the administration of surface water
12 rights.

13 Q. And I would like you to turn to the
14 newly marked deposition Exhibit No. 78. And this
15 document is entitled, "Defendants' Memorandum in
16 Response to Motions for Summary Judgment." It's
17 filed in the district court proceeding that
18 resulted from a complaint filed by American Falls
19 Reservoir District No. 2, and others, against the
20 Department and yourself. I assume you recall
21 this matter?

22 A. Yes.

23 Q. And if you turn to page 67 where there
24 are signatures of Counsel, I take it that those
25 persons, Phillip Rassier, Candice McHugh, and

1 Q. And at that page, beginning at the
2 second line, there is a statement, "The Rules do
3 not permit the Director to look behind the
4 decree, they simply require as part of the
5 administration of the rights to determine whether
6 the water being called for is presently needed to
7 achieve the beneficial uses for which the senior
8 water right was established. If so, the full
9 right is delivered. If not, then only that
10 amount of water presently needed under the senior
11 water right is delivered."

12 And, obviously, in this case, the
13 reference to "the Rules" is the Conjunctive
14 Management Rules; do you agree with that
15 statement?

16 A. Yes.

17 Q. And I take it really, the singular
18 issue for the watermaster when reading a decreed
19 right and determining how much water to deliver
20 in terms of the uses, whether the water is needed
21 and will be put to beneficial use; is that
22 correct?

23 A. That's correct.

24 Q. Now, beyond that, as you discussed
25 yesterday, the rules identified factors for

1 Michael Orr, were counsel representing you and
2 the Department at the time of this filing of this
3 memorandum, Deposition Exhibit No. 78?

4 A. That's correct.

5 Q. Are you familiar with the course of
6 proceedings in that case?

7 A. Yes.

8 Q. Would it be fair to say that the
9 memoranda and other pleadings filed on your
10 behalf in this case represent the views of
11 yourself and the Department, at least at the time
12 of the filing?

13 A. I would have to say that's correct, at
14 least in a general sense. And most likely in the
15 most specific sense, but I don't exactly know
16 what issue you are wanting to probe.

17 Q. Well, we'll get there. Bear with me
18 just a moment here.

19 MR. STEENSON: Let's go off the record
20 for a moment here.

21 (Discussion held off the record.)

22 MR. STEENSON: Back on the record.

23 Q. (BY MR. STEENSON) Could you turn to
24 page 35 of Exhibit No. 78.

25 A. (Witness complying.)

1 determining material injury. And among those
2 rules, there was indication that the watermaster
3 needs to determine the amount of water available
4 at the source of supply; correct?

5 A. Yes.

6 Q. And that would be part of the normal
7 administrative process, whether a surface water
8 district or on a ground water district, that is
9 for the watermaster to measure the flow, and
10 determine the amount of water that is available;
11 correct?

12 A. That's correct.

13 Q. And then after conducting the
14 determination, and whatever investigation is
15 necessary to establish need, the watermaster's
16 next step then, as you described it, would be to
17 curtail juniors diverting water from
18 hydraulically-connected water sources within the
19 water district; isn't that correct?

20 A. That's correct.

21 Q. Now, yesterday there was discussion of
22 your May 19th, 2005 order issued in response to
23 the Blue Lakes call. And that order is in
24 Deposition Exhibit No. 11, and I would like to
25 turn your attention to that exhibit at this time.

1 A. Before you ask your next question, in
2 your prior question, you didn't talk about
3 whether or not mitigation was being provided.
4 And that's part of the normal administration as
5 well.

6 Q. Sure.

7 A. The junior can continue and is not
8 curtailed if, in fact, the out-of-priority
9 depletions are mitigated, whether it's a surface
10 water source or a ground water source.

11 Q. Sure. Now, as I recall the discussion
12 yesterday, you said that you endeavored in
13 issuing these orders to follow the rules very
14 carefully in responses to this Blue Lakes water
15 delivery call and others that were filed
16 contemporaneously; is that correct?

17 A. The rules and statutes, and to the
18 extent there were issues that hadn't been
19 addressed in the rules or the statutes, that we
20 would apply case law. But we did do it very
21 carefully. And we did it the same in all the
22 calls that were made.

23 Q. Okay. And if you could turn to page 8
24 of Exhibit No. 11, looking at the section
25 heading, it looks like after background

1 by paragraph 34, I take it that what you did to
2 confirm the water rights, was to look at the
3 partial decrees for Blue Lakes' three water
4 rights; am I correct?

5 A. That's correct.

6 Q. And do you agree that the water rights
7 are -- the partial decrees are conclusive as to
8 the nature and extent of the water rights
9 described in the elements therein?

10 A. Yes.

11 Q. Okay. Then under the next section
12 heading in this order, at page 10, the section
13 heading entitled, "Authorized Diversion Rate For
14 Water Rights Nos. 36-02356A, 36-07210, and
15 36-07427," and it lists the water rights there.
16 The discussion that you give there under that
17 heading, is it based on one or more of the
18 Conjunctive Management Rules?

19 A. I can't say it's based on a specific
20 rule. But I can say that it's not outside of the
21 provisions of the Conjunctive Management Rules.

22 Q. Okay. Could you turn to, I think, it's
23 Deposition Exhibit No. 37, a copy of the
24 Conjunctive Management Rules. And identify for
25 me which, if any, portions of the rules pertain

1 discussion at pages 1 through 7, your first step
2 was to examine and discuss the delivery call that
3 was made and the water rights; correct?

4 A. Correct.

5 Q. And is that investigation and
6 examination covered by some portion of the rules?

7 A. I'm not following?

8 Q. You refer, for example, in paragraph 35
9 to Rule 10.04.

10 A. Yes.

11 Q. This discussion and this analysis that
12 you conducted under the section heading at page
13 8, is it pursuant to certain portions of the
14 Conjunctive Management Rules that you can refer
15 me to, other than Rule 10.04?

16 A. I'm not sure what matter of the
17 investigation that you are concerned about? I
18 mean, certainly, beyond the Conjunctive
19 Management Rules, I mean, the watermaster is not
20 going to distribute water to a water right that
21 is not there, for example. So, you know, it's a
22 normal part of the normal process of
23 administration is confirming what rights exist to
24 which water is being sought to be distributed to.

25 Q. Sure. And so at the time as indicated

1 to this discussion, beginning at page 10 of
2 Exhibit No. 11?

3 A. Again, I'm not saying that there is a
4 specific rule that I followed in doing that
5 analysis. But the analysis is not outside of the
6 rules.

7 Q. Do you mean, it's within the rules?

8 A. Well, the rules provide -- they provide
9 a number of specific factors that are looked at.
10 But, you know, they also, in general, frame out
11 how ground water is going to be administered.
12 And this investigation is not outside of the
13 constraints provided by the rules.

14 Q. Which factor of constraint provided by
15 the rules pertains to this analysis?

16 A. Well, this analysis goes to -- was done
17 trying to describe what the quantity element of
18 the decreed right -- what that meant. It was, in
19 fact, a maximum authorized rate of diversion.

20 And the difference -- the reason for
21 the analysis is that the difference is that
22 these, the sources of supply for these rights,
23 does vary significantly seasonally. And that was
24 a factor that existed at the time that the rights
25 were established. So it's simply doing an

1 analysis of what the quantity element means.
 2 Q. Okay. So I take it then that under
 3 this heading, none of the discussion pertains to
 4 a consideration of the quantity of water that
 5 Blue Lakes needs, or would put to beneficial use;
 6 is that correct?

7 In other words, this isn't an analysis
 8 of need for water under this section?

9 A. And the section that you are referring
 10 to is Findings 45 through 51?

11 Q. Correct.

12 A. Yeah, this does not relate necessarily
 13 to how much water is needed by Blue Lakes, or how
 14 much they would put to beneficial use. This
 15 analysis goes to under what conditions can they
 16 call for the distribution of water to their
 17 rights.

18 Q. Now, is this then outside the normal
 19 administrative process that you describe, whereby
 20 watermasters look at the water rights represented
 21 by decrees, licenses or permits, and then make
 22 the determination of need, or the extent to which
 23 the user will put the water to beneficial use?
 24 And then based upon that determination, then
 25 administer junior ground water rights as

1 right users who don't have storage, they would
 2 follow the administrative process that you
 3 describe? That is, consult the water right,
 4 evaluate need, and then proceed with
 5 administration; right?

6 A. Correct.

7 Q. And in the normal administrative
 8 process that I just described, they would not
 9 conduct an analysis of flow variation in order to
 10 determine how much water to deliver; would they?

11 A. They could.

12 Q. Okay. And that would be then only to
 13 the extent of determining what water is available
 14 at the time of the call; correct?

15 A. Correct.

16 Q. And it wouldn't be for the purpose of
 17 determining what the water right, quote/unquote,
 18 "means"?

19 A. What the water right needs?

20 Q. Means.

21 A. Means?

22 Q. Yes.

23 A. I'm not sure I understand your
 24 question.

25 Q. Okay. Fair enough. This discussion

1 warranted in the decree, license or permits
 2 allowed?

3 A. The principles are the same. It's not
 4 outside the principles, but there are some
 5 differences. Here you've got a source of supply
 6 that has significant variations. And unlike
 7 other surface water rights held by canal
 8 companies, for example, they don't have storage
 9 that they can rely on to make-up for the
 10 variations.

11 So in a surface water right stream with
 12 water rights typically held by canal companies,
 13 as variations occur that would diminish the water
 14 that can be diverted by the canal company, the
 15 quantity remains the same, except it becomes
 16 storage water. Here that option doesn't exist.

17 Q. Are you aware of canal companies in the
 18 Boise Valley, for example, and elsewhere, that
 19 other surface water right users don't have
 20 storage and rely entirely on natural flow;
 21 correct?

22 A. There are some, sure.

23 Q. And the watermaster in a surface water
 24 right district administering water rights to
 25 deliver to natural flow users, surface water

1 that we've been talking about at pages 10 through
 2 11 paragraphs 45 through 51, again, first of all,
 3 does not pertain to an analysis of need, or the
 4 extent to which the calling senior will put the
 5 water to beneficial use if it's delivered?

6 A. That's right.

7 Q. As you describe, it pertains then only
 8 to determining what the quantity element of a
 9 water right, as you described, means?

10 A. Of these particular rights to -- I
 11 shouldn't say, "these particular rights," because
 12 it applies to these particular rights. It
 13 applies to all the other rights, in my view, that
 14 rely on these highly variable spring flows for
 15 the source of their supply.

16 Q. Would this analysis apply only to
 17 variable spring flows, or would it apply to any
 18 variable flow in the state of Idaho?

19 A. Well, certainly, the principle here
 20 does not single out spring flows. But this
 21 situation is somewhat unique. Where springs vary
 22 like this, the uses, they are not all
 23 non-consumptive. There is some irrigation uses,
 24 of course. But generally, the uses are
 25 non-consumptive. And the rights were established

1 with the variation in place. The variation
2 existed when the rights were established.

3 Q. Now, in surface water system, flows
4 vary seasonally; do they not?

5 A. They do.

6 Q. And they vary both as a result of
7 natural causes and human causes by way of
8 diverting water and so forth?

9 A. They do.

10 Q. So the same statement that you made
11 with respect to these rights being established in
12 the context of variable flows would apply to
13 virtually any water right in the state of Idaho;
14 isn't that correct?

15 A. Certainly.

16 Q. Now, in the normal administrative
17 process, prior to the issuance of this order,
18 have you ever instructed a watermaster to conduct
19 this type of analysis to determine what the water
20 right means?

21 A. Well, again, in the -- you know, and I
22 agree that there are exceptions to this. But in
23 most instances -- many instances, if not most
24 instances, a typical surface water right holder
25 will have storage that compensates for the

1 which, to your knowledge, the Department has
2 engaged in an analysis of seasonal variation to
3 determine what a water right means in response to
4 a call for water?

5 A. I don't know whether it's the first or
6 not. But what I'm trying to --

7 Q. No, I'm asking about your knowledge.
8 To your knowledge?

9 A. To my knowledge?

10 Q. Yes. This was the first time this was
11 done?

12 A. I don't have any knowledge that it's
13 the first time or not the first time. I mean,
14 certainly, in the situations of administration
15 that I faced during my tenure here, this is the
16 first time we had to go through this kind of
17 analysis.

18 Q. So it's the first time, as far as you
19 know, this analysis was done in response to a
20 water delivery call?

21 A. But the reason is because the rights
22 for which curtailment or administration were
23 sought were from a different source. That was
24 the reason.

25 Q. And why does that reason support? Why

1 variability. So as the seasonal variation occurs
2 and flows diminish, they begin using storage
3 water as opposed to natural flow.

4 Q. Well, what if you don't have storage,
5 then what?

6 A. Well, then -- well, I'm not sure which
7 junior rights you are referring to. But one of
8 the differences here is that -- at least as I
9 understand the situation that you are trying to
10 describe -- you have senior and junior surface
11 water rights that are diverting from the same
12 source. And it seems like you are trying to make
13 that analogous to the junior and the senior
14 rights that are diverting from
15 hydraulically-connected sources, but different
16 sources, and they are not the same.

17 Q. No, I'm not trying to describe the
18 situation. I'm trying to understand the analysis
19 you are applying here, and how it applies to
20 water rights in the state of Idaho. So let me
21 ask the question this way:

22 In this Blue Lakes order, May 19th, and
23 in the other orders you issued in response to
24 calls for water by spring users in the Thousand
25 Springs area, are these the first instances in

1 does the fact that the junior water rights here
2 were from ground water, support an analysis of
3 the variability of flows in order to determine
4 what Blue Lakes' water rights, as you say, mean?
5 In order to interpret the -- I take it -- let me
6 go at it this way.

7 If I understand what you are doing in
8 this section of the order is, you were
9 interpreting the quantity element of Blue Lakes'
10 water rights; correct?

11 A. No, it's not that simple. It's not
12 just interpreting the quantity. It's
13 interpreting a quantity for the purposes of
14 administering junior-priority ground water rights
15 that you are diverting from a different source.

16 Q. Now, would this analysis be performed
17 outside the context of administration in order to
18 determine the nature and extent of the water
19 right?

20 A. I'm not sure I understand the question,
21 what you mean.

22 Q. Okay. Is the situation where Blue
23 Lakes calls for delivery of water, the only
24 context in which the analysis we're discussing at
25 pages 10 and 11 of the order would be performed?

1 A. Well, we're ships passing in the night,
2 I guess. Because what this situation were -- if
3 you had a junior right and a senior right
4 diverting from the same spring source, then these
5 variations are -- you know, you administer the
6 two rights as the flows go up and as the flows go
7 down.

8 But here, when you are seeking the
9 administration of junior-priority ground water,
10 the ground water didn't cause the variation. And
11 so it's important -- you know, what I'm trying to
12 say is, you simply don't curtail junior rights,
13 because there is a variation in the source of
14 supply.

15 Q. Okay. When you say, "the ground water
16 didn't cause the variation," Blue Lakes' springs
17 discharged from the Eastern Snake Plain Aquifer;
18 don't they?

19 A. Yes.

20 Q. So the variability in Blue Lakes'
21 springs, and consequently, in Alpheus Creek is
22 necessarily a consequence of variability in the
23 flow of water from the aquifer; isn't that
24 correct?

25 A. Yes.

1 A. It's qualified. It says, in close
2 proximity to individual springs, which is just
3 what I described. If you have a ground water
4 diversion in close proximity to the spring, it
5 could affect the timing.

6 Q. Right. And in paragraph 46, you
7 clearly describe that you clearly reference,
8 "overall variations between years in the
9 discharge of springs in the Thousand Springs area
10 result from differences between the amounts of
11 ground water depletions and recharge to the ESPA
12 above the springs"; correct?

13 A. Correct.

14 Q. So clearly, you are acknowledging that
15 ground water depletions have an effect on the
16 variability of spring flows; correct?

17 A. They can have.

18 Q. And they do, don't they?

19 A. It depends on where the ground water
20 depletion has occurred.

21 Q. Okay. Let's talk about Blue Lakes, the
22 springs that Blue Lakes relies upon. Do you have
23 an opinion as to whether or not ground water
24 depletions affect the variability of the
25 discharge of Blue Lakes from the north rim of the

1 Q. So any factor that would cause the
2 water level in the aquifer to vary, would be a
3 cause of the variation of Alpheus Creek; isn't
4 that correct?

5 A. State that again.

6 Q. Okay. Any factor, whether it's ground
7 water diversions or canal seepage that would
8 affect the level of the aquifer would affect the
9 discharge of the springs; correct?

10 A. Not necessarily in the same way.

11 Q. Okay. What do you mean by that?

12 A. Well, you know, if you had a ground
13 water diversion immediately above the source of
14 springs for Alpheus Creek, the pattern of that
15 ground water diversion could have some affect on
16 the pattern of spring discharge. But if you are
17 a ground water right that's further removed, the
18 further back you go in general, the less the
19 pattern of ground water diversions has an effect
20 on the pattern of spring discharge.

21 Q. Okay. At page 10, in paragraph 47, in
22 the third or fourth line, you clearly identify
23 variations in timing of ground water withdrawals
24 as a factor that affects intra-year variations
25 from the discharge of springs; don't you?

1 Canyon?

2 A. If they are in close proximity.

3 Q. Did you make a determination of whether
4 or not there are any ground water withdrawals
5 that are in close proximity?

6 A. Well, there are some in reasonably
7 close proximity, but they are not all in close
8 proximity.

9 Q. So at least some ground water
10 withdrawals are affecting the variability of Blue
11 Lakes' springs flows; correct?

12 A. To some extent. However, when you look
13 at least at the history of variability that we
14 have, it is not clear that the appropriation of
15 ground water in close proximity of springs is the
16 major factor relating to the variability. It has
17 some effect. But the effect may be small
18 compared to the other factors that effect
19 variability.

20 Q. Such as canal seepage?

21 A. Sure.

22 Q. And are there any others that you had
23 mentioned in terms of factors that affect the
24 Eastern Snake Plain Aquifer; and therefore, and
25 thereby, affect the variability of spring flows

1 from the aquifer?

2 A. Well, it's incidental recharge from
3 surface water irrigation, not just the incidental
4 recharge from canal seepage. It's the bigger
5 amount of incidental recharge from surface water
6 irrigation.

7 And if you look at the -- you know, to
8 get a sense as to the relative magnitude of these
9 things, you know, Finding of Fact No. 3, does
10 give some average annual amounts for these
11 various factors. And, you know, you see that the
12 incidental recharge from surface water irrigation
13 is generally about 3.4 million acre-feet across
14 the whole Eastern Snake Plain Aquifer.

15 Precipitation is 2.2 million acre-feet. And
16 those together is 5.6 million acre-feet, which
17 is more than twice the depletions from ground
18 water irrigation.

19 Now, that's in general across the whole
20 plain. But the point is that the variability is
21 reasonably the result -- primarily the result of
22 other factors besides ground water depletions.

23 Q. And how do you know that?

24 A. Just because of the magnitude of the
25 numbers.

1 indication that the ground water depletions were
2 exacerbating the already occurring variability or
3 not. And I could not identify, at least I could
4 not identify any significant indication or trace
5 that ground water depletions were causing -- were
6 the significant cause, or were contributing in a
7 significant way to the already existing seasonal
8 variability.

9 Q. Okay. And then let me follow-up on
10 your answer, your prior answer.

11 Did you subsequently, to the issuance
12 of the May 19th, 2005 order, obtain additional
13 information to then form the understanding of
14 your variability?

15 A. Well, we continued to look at measured
16 spring discharge, you know, to see if there were
17 any changes that should be reflected in
18 subsequent administration. And so, I mean, yeah,
19 we looked at measurements, spring discharge
20 measurements subsequent to the order, but still
21 could not identify any variation that we could
22 contribute to ground water depletions.

23 Q. And turning to page 11, paragraph 49.

24 A. You know, significant variations
25 attribute to ground water depletions, obviously,

1 Q. In the order in paragraph 48, you state
2 that the interactions between factors that affect
3 variability in spring flow are not presently
4 quantifiable; correct?

5 A. Only in general.

6 Q. But at the time of the order, you
7 didn't have information in order to quantify the
8 factors that affect variability; correct?

9 A. No. Generally they can be quantified.
10 How they interrelate then is much more difficult.

11 Q. So how they interrelate could not be
12 determined at the time of the order?

13 A. Not in a quantified way. In a
14 qualitative way, I think we can have some
15 discussion.

16 Q. Tell me what you can tell me as of the
17 time of the order, describe for me the extent to
18 which you were able to qualitatively
19 quantify -- quantitatively qualify the factors
20 that interact and affect variability of the
21 spring flows that come from the Eastern Snake
22 Plain Aquifer.

23 A. Well, in terms of ground water
24 depletions, we looked -- or I looked at the
25 available measurements to see if there was any

1 they have an effect.

2 Q. Obviously, ground water depletions have
3 an effect on spring flows; correct?

4 A. Sure. But the effect is not so large
5 that you ignore the variability that's always
6 existed, and simply look at curtailing
7 junior-priority ground water rights, because the
8 spring flow is diminishing due to seasonal
9 variability.

10 Q. But at any point along the variable
11 flow curve, if you will, ground water pumping is
12 affecting the quantity of the discharge; correct,
13 at a spring flow?

14 A. It depends on where the ground water
15 depletion is, whether it has an effect or not.

16 Q. Okay. Then at page 11, paragraph 49.

17 A. Okay.

18 Q. I take it from that paragraph that you,
19 as of the time of the order, did not have any
20 information from which you could determine what
21 the inter-year variations of the Blue Lakes'
22 springs were at the time Blue Lakes' water rights
23 were appropriated; is that correct?

24 A. No, that's not correct. We couldn't
25 specifically quantify a portion of the variation

1 was due to ground water. We can quantify the
2 variation. You can do that just simply by
3 looking at the measured discharge. You can
4 quantify how the springs are varied.

5 Q. Let's look at this last sentence. It
6 says, "There are no known measurements, nor any
7 other means, for reasonably determining the
8 intra-year variations in the discharges from
9 springs comprising the source for these water
10 rights on the dates of appropriation for these
11 water rights."

12 A. Okay.

13 Q. I don't see any qualified reference
14 there.

15 A. I misspoke. What this statement refers
16 to is, there was no quantification of the
17 variation at the time that these rights were
18 established. The variations that we have that we
19 can quantify, begin with when measurements began
20 being submitted to the Department.

21 But having said that, these rights,
22 like many of the other spring rights, the field
23 examination for beneficial use was intentionally
24 made during the seasonal maximum discharge of the
25 springs.

1 communication there. But I know that I've seen a
2 number of instances of such communication for the
3 permitting and licensing of rights that were
4 discharged from springs.

5 Q. Just because somebody else may have
6 done it, doesn't mean you can impute it to the
7 owners of Blue Lakes at the time; can you?

8 A. No, of course not.

9 Q. So you are not doing that here; are
10 you?

11 A. No. But I am suggesting that there is
12 no reason to believe that the licensing for these
13 rights was done differently than any other right.

14 Q. There is just no reason to know one way
15 or the other is there, Karl?

16 A. I would have to go back and look at the
17 file then to see what kind of communication was
18 or was not occurring. You know, from my
19 perspective the point -- the issue that's at
20 stake here is without ground water depletions,
21 the springs are going to have annual variations
22 with or without ground water depletions.

23 And if these spring rights are going to
24 be administered in as simplistic fashion whereby
25 juniors are not allowed to divert any time that

1 Q. How do you know that?

2 A. Because of the dates when the field
3 inspection --

4 Q. How do you know it was intentional?

5 A. I don't -- I don't recall for these
6 particular -- whether it was these particular
7 rights or not. But there are a number of spring
8 rights, where there is correspondence in the
9 water right file, where the applicant was
10 requesting that the field -- the beneficial use
11 field exam be made at a particular point in time
12 when the springs were near their maximum point of
13 discharge.

14 Q. Okay. But you did review, as you
15 indicated in this order, that you reviewed the
16 files that the Department had pertaining to the
17 license and permitting, and licensing of the Blue
18 Lakes rights; correct?

19 A. That's correct.

20 Q. Okay. Did you see any such letter that
21 indicated that the owners of the Blue Lakes
22 facility at the time were making the kind of
23 request you just described?

24 A. I don't recall. I have to go back and
25 look at the file to see if there was any such

1 the quantity is not being met, then ground
2 water -- I mean, if knowing what we know today,
3 then under that kind of a system, you would never
4 allow ground water appropriations to occur,
5 because there are already times when the maximum
6 authorized amount for diversion isn't being met,
7 even without any ground water diversions.

8 Q. And your statement pertains to
9 administration. It doesn't pertain to the
10 meaning, or the nature, or extent of Blue Lakes'
11 water right; does it?

12 A. No, I think it has some applicability
13 there. But the quantity element is the maximum
14 amount authorized to be diverted when it's
15 available.

16 Q. And so in your view in this case, was
17 it necessary for you to consider the variability
18 that you did in order to understand then the
19 nature and extent of Blue Lakes' water right?

20 A. Understand the nature and extent? Yes.

21 Q. Do you know what --

22 A. Sure.

23 Q. Okay. So if this consideration of
24 seasonal variability were necessary for you to
25 understand the nature and extent of a water

1 right, why wasn't it addressed in the
2 adjudication?

3 A. Well, I'll answer that first, and then
4 I'll try to backup again. But the quantity
5 element in the adjudication simply is the maximum
6 amount authorized to be diverted. And for spring
7 rights, or any other surface water right, or
8 ground water rights, for that matter, the
9 quantity element does not define the seasonal
10 variability, whether it's a seasonal variability,
11 seasonal variability in spring discharge,
12 seasonal variability in stream flows, seasonal
13 variability in ground water levels. It's not
14 addressed, and not specifically defined by the
15 quantity element, because the quantity element is
16 the maximum amount that can be diverted. It's
17 not a constant quantity entitlement. That's not
18 what it is.

19 Q. If I understood your testimony, you
20 felt the need to go back in time and ascertain to
21 the extent you could, the seasonal variability in
22 Blue Lakes flows in order to determine what
23 quantity of water they were entitled to under
24 their water right; isn't that correct?

25 A. Only -- not what quantity -- not

1 water rights?

2 A. I'm not sure I understand the question.

3 Q. Okay. You explained the basis for
4 considering seasonal variability as Blue Lakes
5 making a call for delivery of water from a
6 hydraulically connected ground water source;
7 correct?

8 A. Yes.

9 Q. If Blue Lakes hadn't made the call, and
10 just an ordinary day in the water district when
11 Blue Lakes was diverting water, would the
12 watermaster or you feel it necessary to consider
13 seasonal variation to determine if Blue Lakes was
14 diverting the amount of water that they were
15 entitled to divert?

16 A. Only if Blue Lakes was seeking to
17 divert more water than the maximum amount they
18 were authorized to divert. It's not happening
19 right now, of course. But it's possible for the
20 spring discharge to exceed the quantity element.

21 And we have instances where spring
22 users at times have diverted the water that was
23 there, even when it exceeded the quantity
24 element.

25 Q. That can happen with anyone?

1 what -- the maximum quantity they were
2 authorized. I mean, that's settled by the
3 decree. The maximum amount that they are
4 authorized to divert is settled by the decree.
5 However, as I've said before, Blue Lakes was
6 seeking the administration of junior-priority
7 ground water rights diverting from a
8 hydraulically-connected source, but not the same
9 source.

10 Q. Is the quantity element of the decree
11 different, or interpreted differently by the
12 Department when administration is sought, as
13 opposed to when administration is not sought?

14 A. Well, the only reason for the
15 Department to investigate the quantity element is
16 when administration is occurring, or
17 alternatively, I suppose, if the transfer is
18 filed.

19 Q. Okay. That really wasn't my question.

20 My question is: Does the Department
21 view the quantity element differently in the
22 context of the right to divert water without
23 curtailing junior ground water rights, as opposed
24 to the right to divert water when administration
25 is sought by way of curtailment by junior ground

1 A. Sure, of course.

2 Q. It's not unique to spring water users?

3 A. That's absolutely correct.

4 Q. Could you turn to Deposition Exhibit
5 No. 2, please.

6 A. (Witness complying.)

7 Q. And look at the decrees for Blue Lakes'
8 water rights, and specifically at the quantity
9 element.

10 A. (Witness complying.) Okay.

11 Q. Now, each of these decrees under the
12 quantity element has a diversion rate; correct?

13 A. Yes.

14 Q. It also has an annual volume expressed
15 in acre-feet per year; correct?

16 A. Yes.

17 Q. Now, I'll represent to you -- and I
18 didn't bring my calculator. Maybe we can get
19 one -- but I looked at the analysis that was done
20 by the Department to derive the annual volume,
21 and they use the factor of -- they rounded the
22 conversion factor of 1.9834 to 1.98 to convert
23 this rate to the number of acre-feet per day, and
24 then multiplied that number by 365 to derive the
25 annual volume.

1 So given that representation, do you
2 recognize that the annual volume here represents
3 a diversion of 45 cfs, 24 hours a day, 365 days a
4 year?

5 A. It's certainly -- the magnitude of the
6 numbers are consistent with what you described --

7 Q. In other words --

8 A. -- but, again --

9 Q. In other words, if you took 45 cfs, and
10 multiplied it by 1.98, and multiplied it by 365,
11 you would get 32,521.5?

12 A. Which, again, is the maximum volume
13 authorized to be diverted if it's there.

14 Q. But it's authorized to be diverted --

15 A. If it's there.

16 Q. We're going to confuse the court
17 reporter if we keep interrupting each other.

18 A. All right.

19 Q. It's the amount of water that's
20 authorized to be diverted 24 hours a day, 365
21 days a year; isn't that correct?

22 A. If, in fact, it's there.

23 Q. And if it's not there, what amount is
24 Blue Lakes entitled to under, for example,
25 36-07210?

1 source and a ground water source.

2 Q. Okay. Can you explain that complexity
3 to me?

4 A. Well, it has to do with the -- it's
5 fully described in the orders. It has to do with
6 the effects of ground water depletions on the
7 hydraulically-connected surface water sources,
8 which are much different than the effects of
9 tributary sources on another surface water
10 stream.

11 Q. Now, turning back to Deposition Exhibit
12 No. 11, to page 13, under paragraph 60.

13 A. (Witness complying.)

14 Q. Do you recall these data as data that
15 were collected by Tim Luke at your request?

16 A. Yes.

17 Q. Now, in reviewing this diversion data,
18 did you take the time to compute the annual
19 volume that was being delivered to Blue Lakes as
20 a result of the flows that you referenced in this
21 table?

22 A. No.

23 Q. Now, given your discussion in paragraph
24 60 of the data in the table, and your statements
25 in paragraph 64, that Blue Lakes' 1971 priority

1 A. They are entitled to divert what's
2 there when they are in priority.

3 Q. Okay. So does "in priority" mean when
4 a -- junior ground water rights are curtailed?
5 What do you mean "in priority"?

6 A. Well, generally, it's in priority from
7 the same source. And it gets, again, more
8 complicated when you move from administering
9 water rights in the same source to administering
10 water rights between sources that are
11 hydraulically-connected, but not the same source.

12 Q. Why is that, again?

13 A. Why is it more complicated?

14 Q. Why is it more complicated? Let's take
15 a tributary stream and tributary surface water
16 right source. Is the situation more complicated
17 just because you look upstream to administer
18 water rights from any connected source, or is it
19 just because here in this circumstance, we're
20 looking upstream to curtail ground water rights?

21 A. When you are administering between
22 tributaries, it gets more complex. But
23 generally, in surface water systems,
24 administering between tributaries is not as
25 complex as administering between a surface water

1 water right is being filled by the 2004 flows.

2 Does that mean that for purposes of
3 administration, these flow rates that you
4 reference in the table for 2004, are the flow
5 rates that Blue Lakes is entitled to under its
6 1971 water right for purposes of administration?

7 A. I had to re-read Finding 64. Restate
8 the question now for me, please.

9 Q. Okay. Is the upshot of Finding 64 that
10 the daily inflows listed in the table in
11 paragraph 60 for 2004, the date the flows that
12 Blue Lakes' 1971 priority water right entitled it
13 to receive for purposes of administration of
14 hydraulically-connected junior rights?

15 A. Well, again, I've said it before, that
16 these seasonal variations exist with or without
17 ground water diversions. And if you were to
18 interpret the quantity element of the right as
19 being the maximum amount that Blue Lakes is
20 entitled to, then you would never have allowed
21 any ground water development, because Blue Lakes'
22 right already wouldn't have been filled during
23 some time of the year. And under that theory,
24 you couldn't allow a junior to come in.

25 Q. Then was the right licensed

1 incorrectly?
2 A. No, the right was not licensed
3 incorrectly. The right was licensed at the
4 quantity, which was the maximum amount that they
5 were entitled to divert if the water was there.

6 Q. And the value of the water right really
7 is determined, and the rubber hits the road, if
8 you will, in times of administration; isn't that
9 correct? What a water right means is really put
10 to the test when the water user who owns the
11 water right calls for distribution of water?

12 A. Well, the value of a water right really
13 is inherent in the priority date in the
14 authorization to make beneficial use. The
15 administration doesn't increase or shouldn't
16 decrease the value of a water right.

17 Q. Shouldn't, right? The administration
18 should not decrease the value of a water right;
19 should it?

20 A. That's correct.

21 Q. Now, in this table, you reference
22 "Maximum Daily Flow, Average Daily Flows, Minimum
23 Daily Flow." In paragraph 64, your conclusion
24 takes into account the variations that have
25 existed since the date of appropriation.

1 water that's available. It doesn't define the
2 amount of water that Blue Lakes is entitled to.
3 Q. Okay. You say that the amount of water
4 available is sufficient to fill Blue Lakes' water
5 right?

6 A. At the seasonal maximum.

7 Q. Okay. And what months of the year in
8 the table are you referring to?

9 A. Well, it appears that the seasonal
10 maximum generally occurs in October or November.

11 Q. Okay. So does that then mean that the
12 water supply, the quantity of water available at
13 the source of the water right, that is water
14 right 36-07210, is insufficient to fill the right
15 the rest of the year?

16 A. It's insufficient to provide that
17 quantity during the other times of the year, or
18 can be.

19 Q. So the water right isn't being filled
20 10 months of the year; correct?

21 A. With or without ground water
22 depletions, it's the same result.

23 Q. The answer to my question is, "yes";
24 isn't that correct? The water right is not being
25 filled, according to this data that you include

1 Which of these flows, maximum, average,
2 or daily, are you relying on in drawing the
3 conclusion that you drew in 64? Is it the
4 maximum, the average, or the minimum?

5 A. I have to reread it again. (Witness
6 reading.) Well, it says it in the finding
7 itself. Reading the last portion of the finding,
8 "The quantity of water available," et cetera, "is
9 currently sufficient to fill this right at the
10 authorized diversion rate of 45 cfs when the
11 inflows in Alpheus Creek are at seasonal highs."

12 Q. Okay. And are those seasonal highs
13 represented in the table?

14 A. Yes, they are.

15 Q. Okay. Which numbers are they
16 represented by?

17 A. The seasonal highs are reflected in
18 both -- in all three, the maximum, average and
19 minimum daily flows.

20 Q. Okay. So to define the amount of water
21 right water that Blue Lakes is entitled to for
22 purposes of administration during any given
23 month, which of these columns do I look at; the
24 max, the average, or the minimum?

25 A. Well, the table defines the amount of

1 in paragraph 60, 10 of the 12 months of the year;
2 correct?

3 A. I wouldn't characterize it that way,
4 that it's not being filled.

5 Q. How would you characterize it?

6 A. I would characterize it that the
7 quantity of water available during 10 months of
8 the year is less than the maximum quantity
9 authorized to be diverted.

10 Q. And therefore, the water right is not
11 being filled; correct?

12 A. Well, but the implication, when you add
13 that additional characterization, is it's not
14 being filled because of junior-priority
15 diversions. That's the implication. And I'm
16 saying that the quantity of water is less than
17 the maximum amount authorized to be diverted
18 because of variations, over which the
19 junior-priority ground water users aren't
20 causing.

21 Q. Now, junior-priority ground water
22 diversions have both short-term and long-term
23 effects on the Eastern Snake Plain Aquifer; don't
24 they?

25 A. Yes.

1 Q. And you've described those yesterday as
2 transient and steady state?

3 A. Correct.

4 Q. And you've also said that over time,
5 the effect of a ground water diversion is fully
6 expressed in spring flows. It's just a question
7 of how much time it takes?

8 A. I'll call it the average of the effect
9 reaches steady state. But there still can
10 be -- even at steady state, there can be some
11 seasonal variation around the steady state
12 average.

13 Q. Okay. So ground water pumping
14 generally in long term has the effect of lowering
15 the level of the aquifer, if the depletion by
16 ground water pumping is not compensated -- my
17 term, if you will, probably not technically
18 accurate -- but compensated for by seepage and
19 other inputs of water to the aquifer; isn't that
20 correct?

21 A. When a significant amount of ground
22 water withdrawals -- and I guess we could argue
23 about what "significant" means. When a
24 significant amount of ground water withdrawals
25 and associated depletions occurs, there is a

1 that correct?

2 A. For the most part, but not necessarily
3 entirely.

4 Q. So that trend that you show in spring
5 discharge also reflects the overall trend in
6 aquifer levels in the Eastern Snake Plain;
7 correct?

8 A. With the qualification, overall. There
9 are locations probably where ground water levels
10 have not decreased in a similar fashion, and
11 there may, in fact, be several locations where
12 they have increased.

13 Q. Sure. But you included the attachment
14 to portray the overall situation; correct?

15 A. Yes, of spring discharge.

16 Q. And spring discharges overall affected
17 by the Eastern Snake Plain overall?

18 A. But, again, it's not everywhere. It's
19 overall.

20 Q. Okay. So then, overall, pumping by
21 ground water users affects spring discharges at
22 any time of the year, any and every time of the
23 year overall?

24 A. Well, they can affect it at any time of
25 the year.

1 lowering, if you will, of ground water levels
2 until steady state conditions are reached. At
3 which point, the ground water levels no longer
4 recede.

5 Q. In your order documents your view that
6 the aquifer has generally been declining in
7 overall level, if you will, again my
8 terminology --

9 A. Yes.

10 Q. -- lay talk terminology -- since the
11 middle part of the last century?

12 A. That's -- generally, I agree with that
13 statement.

14 Q. As represented by the -- I don't
15 remember what attachment, maybe Attachment C, to
16 this and other orders to include that aquifer
17 levels increased from around 1900 to a peak of
18 around 1950, and have been declining since that
19 time; right?

20 A. I believe that's Attachment A on most
21 of these orders, and it's not ground water levels
22 that are portrayed. It's spring discharges
23 that's portrayed.

24 Q. But the spring water discharge is a
25 direct consequence of ground water levels; isn't

1 Q. Do you have any opinion as to whether
2 or not that is occurring in the Eastern Snake
3 Plain Aquifer?

4 A. Well, it certainly occurs at some
5 locations.

6 Q. Do you have an opinion as to whether
7 it's occurring at the location of Blue Lakes'
8 springs?

9 A. Now, are we speaking of depletions?
10 Are we speaking of variability? What is it that
11 is occurring?

12 Q. Decline in the aquifer resulting in a
13 decline in trend of spring flows since the middle
14 part of the last century.

15 A. Yes.

16 Q. Is that occurring? Has that been
17 expressed in Blue Lakes' springs, in your
18 opinion?

19 A. I would have to look back at the -- and
20 I don't have the attachment in this exhibit
21 (indicating).

22 Looking at Attachment C to the order,
23 which shows the total diversions from Alpheus
24 Creek, it appears that the decline is not exactly
25 consistent with the overall decline shown in

1 Attachment A.
 2 Q. There is a decline; correct?
 3 A. It depends on what period of time you
 4 look at. It appears that if you look overall
 5 from when data became available and consistently
 6 beginning in about March of 1995 through
 7 September '04, there has been some decline. But,
 8 again, if you look at the time period from the
 9 abnormally high values shown in 2001, it makes
 10 the decline look more significant since 2001.
 11 But when you look overall from 1995 to
 12 2004, there is some decline apparent, but it
 13 would appear to be less in magnitude than the
 14 overall decline reflected in Attachment A.
 15 Q. And how would you describe the overall
 16 magnitude? You say the decline at Blue Lakes'
 17 springs was less than the magnitude of the
 18 overall decline? Can you quantify that
 19 comparison for me?
 20 A. Well, I'm using your characterization
 21 of the decline, the general decline shown in
 22 Attachment A since 1950.
 23 Q. All right. And I would like you to
 24 turn to what's been newly marked as Deposition
 25 Exhibit No. 82. And I'm going to represent to

1 be the maximum volume that Blue Lakes could
 2 divert if the water was there.
 3 Q. And that's stated in Exhibit 82;
 4 correct?
 5 A. I didn't do the math. I am taking your
 6 word that -- and I looked back in the order to
 7 compare your priority dates and numbers with what
 8 was in the order, and I don't have the annual
 9 volumes in the order.
 10 Q. Okay. They are in Deposition Exhibit
 11 No. 2, if you want to turn to that, at least for
 12 water right 7210 and 7427.
 13 A. (Witness complying.) Okay. I'm not
 14 seeing the volume for right 36-2365A.
 15 Q. That's not there.
 16 A. Okay.
 17 Q. I'm just asking you whether you'll
 18 suspend your disbelief --
 19 A. I don't have any disbelief.
 20 Q. -- and accept that they are accurately
 21 represented.
 22 Now, what I did here in the first page
 23 is to -- in the first column under "Average Daily
 24 Flows," simply list the average daily flows for
 25 the years 1995 and 1996 and for the year 2004,

1 you that these are tables in the draft that I
 2 prepared based on your table in paragraph 60 at
 3 page 13 and 14 of the May 19th, 2005 order.
 4 A. To table where? Excuse me.
 5 Q. I prepared Deposition Exhibit No. 82
 6 based on the table in paragraph 60 of your May
 7 19th, 2005 order.
 8 A. Okay.
 9 Q. Okay. And I'll walk you through this
 10 exhibit, and ask you some questions about it.
 11 This is Exhibit 82.
 12 You recognize the summary of the water
 13 rights at the first page at the top to be an
 14 accurate summary of Blue Lakes' water rights; is
 15 that correct?
 16 A. Without a calculator, I can't check the
 17 volume numbers. But other than the volume, the
 18 summary, in terms of the number and the priority
 19 rate and rate of diversion, it appears to be
 20 correct.
 21 Q. So assuming I did the math correctly,
 22 and the aggregate volume of Blue Lakes' water
 23 rights as stated in their decrees is 142,415.24
 24 acre-feet, thereabouts?
 25 A. If the numbers are correct, that would

1 that you listed in paragraph 60 of the May 19th,
 2 2005 order.
 3 And what I did was I multiplied those
 4 numbers by 1.98 to derive the average daily
 5 volume under each year. And then I multiplied
 6 those numbers by the number of days in the month
 7 to derive monthly volumes, and then by addition
 8 to derive the total volumes of water represented
 9 by those numbers for each year. And that is for
 10 1995 to 1996, the available flow provided Blue
 11 Lakes 107,198 acre-feet and 2004 provide 95,538
 12 acre-feet.
 13 Now, again, without asking you to
 14 accept my math, you would recognize, wouldn't
 15 you, that the volumes of water available to Blue
 16 Lakes in 1995 and 1996 and 2004, are
 17 substantially less than the volumes of water
 18 stated in their decrees?
 19 A. Well, they are substantially less than
 20 the maximum volume authorized to be diverted.
 21 But that maximum volume authorized to be diverted
 22 is a hypothetical number, that assumes that the
 23 discharge at those rates would be constant, which
 24 it's not.
 25 Q. Are you saying the numbers under the

1 quantity element in the decrees are hypothetical
2 numbers?

3 A. No, they are calculated, just as you
4 described earlier. They are based upon the rate,
5 times the conversion factor of 1.98, whatever it
6 is, times 365 days a year. Assuming that that
7 discharge would be available 24 hours a day, 365
8 days a year, which it's not.

9 Q. And do you believe the decrees are
10 binding upon the Department of Water Resources in
11 their administration of water rights?

12 A. Certainly.

13 Q. Now, the graph I prepared then is then
14 based on the flow rates you included in paragraph
15 No. 60. And you can check the plots to verify
16 that I have correctly placed them in this graph
17 from the average daily flow column that you
18 reported in paragraph 60.

19 And I would like to see if you concur
20 with me in a few observations about these flows
21 based on this table. One is that the pattern of
22 variability during the 1995, 1996 time frame and
23 the 2004 time frame is similar, seasonally
24 similar?

25 A. There is some differences, but the

1 made? It was one you received from Blue Lakes?

2 A. Well, I don't recall if it's one I
3 received directly from Blue Lakes, or this is a
4 result of calculations made by Tim Luke.

5 Q. Okay.

6 A. Because what we received from Blue
7 Lakes, I believe, was the average daily flows.

8 Q. Okay. So certainly the average daily
9 flow on a monthly basis has declined during the
10 ten years prior to 2004?

11 A. Well, I mean, we're looking at two
12 years. And I agree with you that -- I mean,
13 assuming that these plots are accurate, and I
14 don't dispute that you would plot them
15 inaccurate. I mean, I don't think you would do
16 it inaccurately.

17 So all you can say, I think, is that
18 the average daily flows on a monthly basis in
19 2004, are less than the average daily flows on a
20 monthly basis than what is shown for 1995, 1996.

21 MR. STEENSON: Okay. I want to mark a
22 new exhibit, please.

23 (Exhibit 83 marked.)

24 Q. (BY MR. STEENSON) Okay. Do you
25 recognize Deposition Exhibit No. 83 to be a field

1 overall shape, I suppose, is similar. But, for
2 example, if you look at the 1995, 1996
3 distribution, it would appear that the
4 decline -- the seasonal decline from April
5 through -- oh, it looks like July, is less steep
6 than the seasonal decline in 2004.

7 Q. Sure. And then would you also concur
8 with me, that it's clear that the overall flows,
9 the annual flows at Alpheus Creek have declined
10 from 1995, 1996 to 2004?

11 A. Remind me, again, what are you plotting
12 here? Is it the maximum, the average, or the
13 minimum?

14 Q. The average.

15 A. Well, it certainly appears that the
16 average flow in 2004 is generally less than the
17 average flow in 1995 and 1996.

18 Q. And with respect to average flow, do
19 you recall how you calculated average season flow
20 on a monthly basis?

21 A. I would assume that for that given
22 month, they would take the average daily flow for
23 each of the days during that month, and then
24 divide it by the number of days by the month.

25 Q. This wasn't a calculation that you

1 examination performed for Water Right 36-7210?

2 A. Well, this appears to be the field
3 exam, but often -- I don't remember if this was
4 the case with Blue Lakes or not -- there was
5 often a staff memorandum that was prepared to
6 evaluate the field exam, and so I don't know if
7 this -- if I -- I don't know that this is the
8 complete documentation of the field exam or not,
9 but it certainly appears to be part of it.

10 Q. Okay. And I'm going to hand you what
11 I'll represent to you is a copy of the related
12 documents that I downloaded off the Department's
13 website related to 36-7210. You know how when
14 you go on the website, you can click on
15 different --

16 A. Sure.

17 Q. Tell me if there is additional
18 documentation than what I'm handing you that you
19 think would be part of the field exam?

20 A. Well, initially, it appears that the
21 document titled, "Blue Lakes Trout Farm
22 Calibration of Staff Gage" would be related as
23 part of the field exam.

24 Q. Let's pull it out and add to it the
25 exhibit.

1 A. (Witness complying.)
 2 Q. Is there any other document that you
 3 think --
 4 A. I'm still looking. Well, there is an
 5 additional letter that's related to this
 6 calibration of the staff gage that I don't know
 7 if it -- I mean, it's part of the same thing.
 8 Q. Is it relevant to you to the field
 9 exam?
 10 A. It certainly may, because it explains
 11 some differences in measurements over time.
 12 Q. Okay. Let's include that with the
 13 exhibit as well.
 14 A. But what I'm not seeing in here is any
 15 sort of a staff evaluation of the field exam, and
 16 I can't tell you if such a document exists in the
 17 water right file or not, but it may.
 18 Q. Okay. Now, looking at the field exam
 19 in Exhibit No. 83. Karl, clear over here
 20 (indicating).
 21 A. (Witness complying.) Okay.
 22 Q. The second page, it's a single page at
 23 the top, has the statement, "Date of exam, March
 24 1, 1977." Do you see that?
 25 A. I see that.

1 A. I can't tell that they've subtracted
 2 the amount for Pristine Springs out of this. So
 3 I would not say right now that 190.4 was the
 4 amount available to Blue Lakes.
 5 Q. Okay. But it would be perhaps more
 6 correct to say, that 190.4 cfs was the flow of
 7 water available at the point of diversion,
 8 whether it was for Blue Lakes -- whether it was
 9 shared with Pristine Springs or not?
 10 A. That's what this would appear to
 11 indicate, yes.
 12 Q. And, again, you reviewed this field
 13 exam when you prepared the May 19th, 2005 order;
 14 correct?
 15 A. Well, to the extent this -- well, if
 16 this was in the water right file, I would have
 17 looked at this, along with other documents that
 18 may not be here today that may be pertinent.
 19 Q. Okay. Then looking back to my graph in
 20 Exhibit No. 82. If you were to -- if you are
 21 able to, to plot that data point for 1977. Could
 22 you plot it for me? I'll give you a blue pen, if
 23 you would like.
 24 A. (Witness complying.) Okay.
 25 Q. Okay. I'm encouraged by that, because

1 Q. Do you recognize this to be a standard
 2 form that the Department has used in the past for
 3 field examiners to report their findings from the
 4 field exam?
 5 A. You know, it looks to be the form that
 6 was used at the time. I can't tell you if that
 7 same form is used or not. So I don't know that I
 8 would call it a standard form. But it appears to
 9 be the form that was used at the time.
 10 Q. At the time?
 11 A. Correct.
 12 Q. Now, under the heading, "Measurement
 13 Calculation," do you see the report of a
 14 measurement of 190.4 cfs?
 15 A. Yes.
 16 Q. Okay. That would indicate then, that
 17 at the time of the field exam in March of 1977,
 18 there was available for diversion by Blue Lakes
 19 190.4 cfs; isn't that correct?
 20 A. I don't know. This would appear to say
 21 that -- I don't know if this is the amount that
 22 was divertable by Blue Lakes, or the amount that
 23 was divertable by Blue Lakes in combination
 24 with -- is it, Pristine Springs?
 25 Q. Sure.

1 I put it in the same place. So I must be doing
 2 something right.
 3 A. Okay. We've simply put a quantity and
 4 a time. That's all that we've done.
 5 Q. Okay. And then could you then write,
 6 as I'm going to do here, "3-1-77" next to that
 7 point, so we have a time frame for it?
 8 A. (Witness complying.) Okay.
 9 Q. Okay. So clearly March 1, 1977 was at
 10 or closer to the time of the appropriation of the
 11 water right -- well, it's closer to the time of
 12 the appropriation of the water right than in
 13 1995, 1996, or the 2004 date; isn't that correct?
 14 A. Yes, that's correct.
 15 Q. The time of the appropriation is 1971.
 16 And 1977 being six years later; correct?
 17 A. Correct. That appears to be, yes.
 18 Q. And at the time, as I understand your
 19 discussion of the May 19, 2005 order and from
 20 other statements you've made, by the time we get
 21 to the '70s, when these aquaculture and spring
 22 water rights were being appropriated, we were at
 23 the peak, or making our way toward the decline of
 24 the overall level of the aquifer from the highs
 25 that you had depicted in the middle part of the

1 century around the '50s?

2 A. I'm not sure I understand the question.

3 But before we go on, I want to make clear that
4 this point of 190.4, from the information you've
5 given me, I can't determine whether that is the
6 water available to Blue Lakes, or whether it
7 includes the amount that would have been diverted
8 to Pristine Springs.

9 Q. Sure.

10 A. And the reason for the significance of
11 that is that, these other lines that you've drawn
12 on this exhibit representing the average daily
13 flows for the months, average for the month,
14 between -- comparing them between 1995 and 1996
15 and 2004, those are flows that were strictly
16 available to Blue Lakes, do not include the
17 Pristine Springs diversions.

18 Q. So then I take it that to the extent
19 that they don't represent the Pristine
20 diversions, you would add 25 cfs to each data
21 point in the 2004, and 1995, and 1996 plots;
22 right?

23 A. Correct. I don't know if it's exactly
24 25 cfs, but it's on that order. Yes.

25 Q. Sure. It's the amount you mentioned in

1 going to get it here quickly.

2 MR. RASSIER: I think Chris went to see
3 if it's available.

4 Q. (BY MR. STEENSON) And maybe I can
5 short circuit this by asking you to look at
6 Deposition Exhibit No. 80.

7 A. (Witness complying.)

8 Q. My understanding of Deposition Exhibit
9 No. 80, and I'll represent to you that the
10 highlights are in the electronic file that I
11 received, either from the Department or
12 downloaded from the Department's website.

13 I understand that these miscellaneous
14 measurements to be those that you referenced in
15 your order at paragraph No. 58 at page 12. And
16 by "order," again, I mean, the May 19th, 2005
17 order, page 12, paragraph 58. You have to go
18 back one, Karl.

19 A. It's 58?

20 Q. Yeah. It's the sentence that starts
21 out, "The USGS."

22 A. Okay.

23 Q. Do you recognize these measurements?

24 A. They appear to be what I was

25 referencing. But, again, when you hand me a

1 the order; right?

2 A. Yes.

3 Q. Now, I want to turn then, your
4 attention then to Deposition Exhibit No. 81.

5 A. But I'm wondering, Dan, before we go
6 on, for completeness, if we shouldn't also note,
7 in addition to the date, that the quantity
8 includes the diversion to Pristine Springs?

9 Q. Does the field exam say that?

10 A. No.

11 Q. So we don't know one way or the other?
12 It may, or it may not?

13 A. I think we know.

14 Q. How do you know that?

15 A. Well, if we have the entirety of the
16 water right file here, I think we could show that
17 it does include it. Because in the beginning,
18 when these measurements were submitted, they
19 weren't separated out. They were combined. And
20 I think I could demonstrate that with the water
21 right file, but I don't have it.

22 Q. Okay. We can certainly get it here;
23 couldn't we?

24 A. I don't know. I don't know where it

25 is. If it's in the State archives, you are not

1 document out of context in terms of the rest of
2 the file, I can't tell you with certainty that
3 this is the document.

4 Q. Could you look through the document
5 and --

6 A. Well, like I say, it appears to be what
7 I was referencing.

8 Q. It's just you don't recall for sure; is
9 that --

10 A. Well, no. Actually, it looks similar.
11 But I don't know if there were other parts to
12 this document that were in the water rights file
13 that, you know, I just can't tell. It appears to
14 be what I was referencing.

15 Q. Okay. Fair enough. Then if we go back
16 in the document to the very last page, where the
17 structure of the Blue Lakes system was drawn, and
18 there is a legal description of the location.
19 And then immediately in the preceding paragraph,
20 we see dates in the 1950s and discharge
21 measurements; do you see that?

22 A. I'm looking at the last page. Is that
23 what I'm supposed to be looking at?

24 Q. No, the immediately preceding page.

25 A. Oh, okay. (Witness complying.) All

1 right.

2 Q. And then these measurements, as you
3 turn back towards the front of the document,
4 range from the 1950s to the early 2000 time
5 frame. Do you recognize that?

6 A. Yes.

7 Q. Now, this document reflects flows in
8 the system at the right and left channel, and at
9 the canal diverting to the fish ponds. If you
10 begin with the second to last page, in the 1950s,
11 substantially over 200 cfs; isn't that correct?

12 A. That's what it indicates.

13 Q. Okay. And there is an indication that
14 the canal diverting to a fish ponds on March 17,
15 1950 diverted 23 second feet. And then, for
16 example, there is a page a few pages back, where
17 there is a measurement of April 4th, 1973
18 indicating a diversion at the fish pond channel
19 at 197 cfs; isn't that correct?

20 A. That's what it says.

21 Q. So these measurements would be
22 indicative of substantially higher flows in the
23 '50s, '60s, '70s, as we get into the time when
24 these water rights were appropriated, then exist
25 today that are available in the Blue Lakes

1 Q. Certainly, from Deposition Exhibit
2 No. 80, we can see higher flow measurements
3 recorded during the '50s than were recorded
4 during the '60s. And consequently, similarly
5 higher flow measurements recorded in the '60s
6 than were recorded in the '70s. And a
7 continuation of the similar trend as you proceed
8 through the decades toward the current -- for the
9 most recent measurements in early 2000; right?

10 A. Well, I don't -- I mean, I'm looking at
11 these numbers. I haven't plotted them out. It
12 appears that during each year, that there were
13 measurements made generally when the springs were
14 at their minimal discharge, and measurements made
15 generally when the springs were at the maximum
16 discharge.

17 And, you know, I think you could reach
18 the conclusion that it looks like there has been
19 a general decline. But, you know, I would have
20 to really see what the magnitude of the decline
21 has been. You would have to plot these out.

22 Q. And you didn't do that when you issued
23 this order on May 19th, 2005?

24 A. No.

25 Q. Why not? Wouldn't that be important to

1 diversion; isn't that correct?

2 A. Well, I believe that's correct. I
3 mean, you know, you can, I guess, get a similar
4 result by simply comparing what I indicated in
5 Finding 58. The last sentence assumes Pristine
6 Springs was receiving its full authorized
7 quantity of 25.3. Blue Lakes Trout was receiving
8 184.7 cfs of the total 210 cfs diverted from
9 Alpheus Creek into the Perrine Ditch on November
10 10, 1980.

11 So if you compare the 184.7 cfs that
12 Blue Lakes was assumed to be receiving in 1980,
13 and you compare that with what existed in
14 November of 2004, you know, the maximum amount in
15 2004, November of 2004, was 153.85 cfs. So there
16 is certainly less water, apparently, available in
17 2004 than there was in 1980.

18 Q. And would you agree with me, that it
19 looks like from these measurements, that there
20 was more water available in the '50s than there
21 was in the '60s? More water available in the
22 '60s than there was in the '70s. And more water
23 available in the '70s than there was in the '80s,
24 and so on as we go forward in time?

25 A. I don't know about that.

1 have done?

2 A. Well, that's in part -- essentially,
3 that's what I -- I didn't plot them out, but,
4 essentially, I reached the conclusion that the
5 water availability is less in 2004 than it was in
6 1980.

7 Q. Okay. So certainly then, these numbers
8 in paragraph 60 are not indicative of flows
9 existing at the time of appropriation; are they?

10 A. No.

11 Q. They are much lower; aren't they?

12 A. They are lower. You know, I mean,
13 again, if I look at November of 2004, the flows
14 available in November of 2004 were 153.85 cfs,
15 and comparing that to the flows available in
16 November of 1980, which was 184.7 cfs, it appears
17 that they are lower. I don't dispute that.

18 Q. Okay. And the measurements from 1980,
19 is that contained in Deposition Exhibit No. 80?

20 A. Well, I believe it is, although there
21 is a discrepancy of one day. There is a
22 measurement that is reported on November 6th,
23 1980, indicating that the diversion to the
24 Perrine Ditch was measured at 210.1 cfs, and in
25 Finding 58, I refer to a measurement of 210 cfs

1 on November 5th, 1980. Oh, excuse me. Wait a
2 second.

3 It appears that the date has been
4 incorrectly stated in Exhibits 58 and 59 by five
5 days.

6 Q. What should the date be, then?

7 A. Well, and I'm not sure. I talk about a
8 measurement made on November 5th in Finding 58.

9 And when I look at Exhibit 80, I see a
10 measurement made on November 6th of 1980 of
11 210.1. But in the last sentence of Finding 58
12 and then continuing into Finding 59, I refer to a
13 date of November 10th, which appears to be a
14 misstatement. It should be presumably November
15 5th or November 6th. But I don't know that it's
16 substantial in terms of looking to see whether
17 there has been a decline or not.

18 Q. Okay. So you think the measurement in
19 Exhibit 80 that you may be referencing is a 1996
20 measurement?

21 A. It appears that it may be, yes.

22 Q. Okay.

23 A. Because the quantity measured of 210.1
24 is essentially what I refer to as the 210 cfs in
25 Finding 58 on November 5th.

1 Q. Yes. And I've spoken with Tim Luke
2 about this information, and he indicates that he
3 doesn't know. Is there anyone else within the
4 Department?

5 A. No.

6 Q. Okay. And by 1980, is that a time
7 frame when the levels of the aquifer are in a
8 stage of decline from the historic highs that you
9 described from the 1950s?

10 A. Well, the accumulative spring discharge
11 from the Thousand Springs Reach, as shown on
12 Attachment A by 1980, were less than they were in
13 the 1950s.

14 Q. Okay. So then with respect to seasonal
15 variations, I've asked you to look at Exhibit
16 No. 81. And from the data that is shown there,
17 and I will represent to you that this was
18 provided by the Department as one of the
19 documents that was relied upon in the issuance of
20 the May 19th, 2005 order. Do you recognize this
21 document?

22 A. Well, it appears to be the document
23 that I relied on in preparing Attachment C to the
24 order.

25 Q. Okay. So while the level of the peaks

1 Q. Are you sure of that, or do you think
2 there was perhaps some other measurement that you
3 relied upon from November 6th, 1980?

4 A. I don't know, because I don't have the
5 entire water right file. I can't go back and see
6 all the documents that I would have looked at.

7 Q. And with respect to this document, do
8 you see any indication that water was being
9 diverted to Pristine or its predecessor?

10 A. Well, in Finding 58, I said it's
11 assuming Pristine Springs. I don't know that you
12 can make that determination from this document.
13 So I made an assumption that it was.

14 Q. Why did you make that assumption?

15 A. Well, I must have made the assumption,
16 because I thought it was reasonably supportable.

17 Q. But you don't know?

18 A. I would have to go back through the
19 entire file and recreate the rationale for this
20 finding.

21 Q. We may need you to do that, because the
22 Department has indicated that you are the only
23 person who can speak to the substantive finding
24 in this order. And nobody else can --

25 A. Well, I wrote the order, so...

1 and the valleys may change, the pattern of
2 variation from year to year is a similar pattern;
3 is it not?

4 A. It appears to be, yes.

5 Q. Okay. And with respect to Exhibit
6 No. 80, when you observed that some of the
7 measurements were taken at seasonal lows, what
8 months of the year were you referring to? Were
9 you referring to the March measurements at the
10 seasonal low periods?

11 A. Not necessarily the absolute low
12 periods, but generally near the seasonal lows,
13 the March numbers.

14 Q. And is it your opinion then that the
15 seasonal highs generally, over time, at least
16 back -- at least during the period of these
17 measurements in Exhibit No. 80, occurred in the
18 October, November time frame?

19 A. Yes.

20 Q. Okay.

21 A. And the seasonal lows occur,
22 apparently, in the March, April time frame.

23 Q. Okay. Then it's absolutely the case,
24 is it not, that the measurement for field
25 inspections for Blue Lakes Water Right 36-7210

1 taken in March of 1977, was not taken at a
2 seasonal high period, as you had previously
3 assumed?

4 A. I'm not sure I assumed anything about
5 the March 1st, 1977 number.

6 Q. Well, previously, you testified that
7 you assumed that the Blue Lakes, like others,
8 were intentionally having field examiners come
9 out at seasonal high flows to establish as great
10 a quantity for the water right as possible.

11 That's what you said; right?

12 A. I had said, in general. And then we
13 talked about -- we had an exchange, and I
14 concluded there was no basis for me knowing
15 whether that was intentional on Blue Lakes' part
16 or not.

17 Q. Now, based on the field exam, we now
18 know that it was not the case, that the
19 measurement occurred at the seasonal high period
20 of the flow in 1977; correct?

21 A. That's what it appears to be.

22 Q. Okay.

23 A. The measurement date that is there, and
24 that would have been not during the time period
25 when the springs normally would be at their

1 1977 when this measurement was made, there was a
2 period of time where it looked like there was
3 an -- I'll call it transitional stability, and
4 then the declines began to occur again.

5 So I don't know at what point you are
6 trying to get to, quite honestly.

7 Q. Just for the annual variation of flow
8 from January through December --

9 A. Yes.

10 Q. -- as you've attempted to depict in
11 your order of paragraph 60. Again, given that
12 the annual pattern of flow has been fairly
13 relatively consistent; right?

14 A. Yes.

15 Q. Then the March 1st, 1977 measurement
16 would have been taken at a time during 1977 when
17 the flows were on their way towards a low from a
18 high period?

19 A. For the annual variation?

20 Q. For the annual variation.

21 A. Yes, that's correct.

22 Q. Okay. So then looking at my diagram,
23 if you were trying to infer flows in 1977 to get
24 some kind of a general idea of what the annual
25 variation would be, you would take the flow

1 maximum.

2 Q. So in 1977, the maximum flow would have
3 been something higher than 124 cfs?

4 A. Presumably, that's correct.

5 Q. And then as we can see from my drawing
6 in Exhibit No. 82, the springs at that time in
7 1977 would be on the decline in their seasonal
8 flow pattern; right?

9 A. Which exhibit are you referring to?

10 Q. On Exhibit 82, my drawing of the third
11 page.

12 A. Okay.

13 Q. So the part of my question was that
14 given the seasonal pattern of flow that has been
15 occurring over the many last decades, that
16 measurement at the time of the field exam was
17 taken at a time when the springs were in a
18 declining annual trend; is that right?

19 A. I'm not sure what you are basing that
20 on. Again, I will go back to Attachment A, which
21 shows the accumulative spring discharge, and, you
22 know, if you look across the period from the
23 1950s through 2004, there overall has been a
24 decline.

25 When you look in the time period around

1 pattern like what we see in '95 and '96 and 2004,
2 and lift it up, wouldn't you, up to this higher
3 point in 1977? So that you would see an annual
4 flow pattern, like what we see in the other
5 years, but including this March 1, 1977
6 measurement; isn't that correct?

7 A. Almost. I think you would have to do
8 that. You would have to subtract the 25 cfs from
9 the March 1st, 1977 measurement.

10 Q. Okay. Now, even subtracting the 25
11 cfs, the annual flow pattern existing then in
12 1977, and certainly then, of course, in 1971,
13 when the water right was applied for, would be
14 much higher than the combined decreed diversion
15 rates for Blue Lakes' first priority water right,
16 and its second priority right 7210, than what I
17 plotted there at 170 cfs; isn't that right?

18 A. I'm sorry. You are going to have to
19 state that again.

20 Q. Let me walk it in steps then. Looking
21 at the graph, there is a straight line there at
22 about 145 cfs where I referenced the priority
23 water right 02356A?

24 A. Yes.

25 Q. And its second priority water right

1 07210?

2 A. Yes.

3 Q. And that correctly reflects that the
4 decree identifies the diversion rate of 145 cfs;
5 isn't that correct?

6 A. Yes.

7 Q. Okay. Now, given the annual flow
8 pattern that would have existed in 1977, and
9 given the March 1st, 1977 measurements, and even
10 deducting the 25 cfs from that Pristine may have
11 diverted, the annual flow pattern certainly would
12 have not dipped below this combined amount of 145
13 cfs; would it?

14 A. I don't think that you can make that
15 conclusion based upon one point.

16 Q. Okay. How many points do you think you
17 need? Given your prior testimony that the annual
18 flow pattern is consistent through the years.

19 A. Well, but remember, you know, we
20 compared the annual flow pattern for 1995 and
21 1996, and compare that with 2004, I noted that
22 there were differences.

23 Q. Okay.

24 A. Even though there is kind of a general
25 pattern that appears similar. So I don't think

1 A. Which is 190. And if you subtract off
2 the 25, that would be 165 cfs. And if you
3 compare that to 134 cfs, 134 is less.

4 Q. Yes. Again, if you assume that the
5 190.4 measurement reflects diversion by Pristine
6 as well?

7 A. Right, and that's the assumption I made
8 in Finding 58.

9 Q. Okay. So then, certainly, that
10 measurement from March of 2004 is not indicative
11 of the water that was available to Blue Lakes at
12 the time of appropriation; correct?

13 A. I think that's correct.

14 Q. Okay. Doesn't it also follow that
15 these flows from 2004 in the table are not
16 indicative of the flows that were available
17 during the course of the year in 1977 or 1971?

18 A. Likely not. But we don't have the
19 actual measurements. We didn't get actual
20 measurements on an average daily basis for the
21 months until 1995.

22 Q. Right. But one of the actual
23 measurements that we have that was the basis for
24 the licensing of the water right, was from March
25 of 1977, and shows flows are way higher; correct?

1 you can say, you can from one point determine
2 what the pattern was or was not in 1977.

3 Q. Sure. And looking back to your table
4 in paragraph 60, and looking at your March 19th,
5 2005 order, the average daily flow, your report
6 there for the month of March in 2004 is 134 cfs;
7 correct?

8 A. Correct.

9 Q. That certainly is not indicative of the
10 quantity of water available to Blue Lakes to
11 divert in March of 1977 based on the field exam;
12 right?

13 A. Yeah, probably not. Yeah.

14 Q. Is there any doubt that it's not
15 indicative?

16 A. Well, I mean --

17 Q. Is there any doubt that it's actually
18 56 -- approximately, 56 cfs less than the flow
19 that was available to Blue Lakes as documented by
20 the field exam in 1977, when the appropriation
21 was verified by the Department?

22 A. Well, there is no question that 134 is
23 less than -- I'm not sure what number you want to
24 compare it with?

25 Q. The March 1, 1977 figure.

1 A. Well, it shows -- if you assume that it
2 includes the 25 cfs being diverted to Pristine,
3 it would be 165 cfs available in March, which is,
4 you know, it's hard telling. That was March 1st.
5 So I don't -- you know, there is not much
6 difference between February 2004 and March 2004,
7 it's about 134.

8 So that would indicate that making the
9 assumption that 25 cfs was being diverted to
10 Pristine, then there would have been in 1977,
11 assuming the measurements are compatible, which
12 that's another assumption here. I don't know for
13 certain that the measurements that were being
14 taken and reported in Exhibit 80, in fact, use
15 the same methodology at the same locations as the
16 measurements that have been reported since 1995.
17 I don't know that.

18 Q. That's a problem inherent upon going
19 back to data that's 30 years old, and trying to
20 interpret it; correct?

21 A. Yes. Sure, that's true.

22 Q. One of the reasons to recognize the
23 decrees as they are stated, because you were not
24 there when the water was appropriated in the
25 first place; correct?

1 A. Well, I've never said that we are going
2 to look to the maximum quantity that's authorized
3 to be diverted as stated in the decree. That
4 we're going to look -- that we're going to do
5 anything different than that. That is, and has
6 been, the maximum quantity that can be diverted.

7 Q. Okay. So in March of that year, given
8 this March 1, 1977 measurement, how much water is
9 Blue Lakes entitled to for purposes of curtailing
10 hydraulically-connected junior water rights?

11 A. At what? What date?

12 Q. In March of the year.

13 A. Of March of what year?

14 Q. Any year. Again, we've established
15 that when the water right was appropriated, there
16 was enough water in March to deliver the full 45
17 cfs; correct?

18 A. A full 145 cfs; is that what you are
19 saying?

20 Q. But the water right that we're actually
21 focusing on in paragraph 64, 7210 is for 45 cfs;
22 right?

23 A. Yeah.

24 Q. And we've established that the amount
25 of water available at the time of appropriation

1 A. No.

2 Q. Then why do you say that the water
3 right is being filled in those months, when
4 substantially less than 45 cfs is available for
5 that right?

6 A. I didn't say the 45 cfs is available
7 during those months. That's not what I said.

8 Q. Okay. So then during the months of
9 January through September, it sounds to me like
10 what you are saying is, number one, Blue Lakes'
11 45 cfs water right is not being filled?

12 A. I'm not using that terminology. I'm
13 saying the water was not available for Blue Lakes
14 to divert at the 45 cfs rate.

15 Q. During 2004; correct?

16 A. Correct.

17 Q. But that amount of water was available
18 to Blue Lakes, at least in March of 1977, at the
19 time of appropriation; correct?

20 A. Uh-huh.

21 Q. Okay. So isn't Blue Lakes entitled to,
22 at least during March of the year, the full 45
23 cfs, and isn't the Department obligated to
24 curtail juniors to deliver the full 45 cfs in
25 March given that that's what was available to

1 for that water right was 45 cfs in March; right?

2 A. In March. But Water Right 36-7210 was
3 not appropriated in 1977. It was appropriated in
4 1971.

5 Q. Right. The field exam was in 1977
6 verifying the beneficial use in the amount of
7 water that was available at the time; right?

8 A. I see what you are saying.

9 Q. Isn't that correct? Potentially, there
10 was more water available in 1971 since the flows
11 of the springs have been declining; right?

12 A. Yes, I agree with that. Potentially,
13 there was more water available in 1971, I agree.

14 Q. So when we look at paragraph 64 of your
15 order, you say you are taking into account
16 variations in spring flows that have existed
17 since the date of appropriation to conclude that
18 the amount of water available to Blue Lakes in
19 2004 was adequate to fill its 45 cfs right.
20 Isn't that what you do there?

21 A. When the flows in Alpheus Creek are at
22 the seasonal highs.

23 Q. So is it your conclusion that Blue
24 Lakes is not entitled to 45 cfs through the
25 months of January through September?

1 Blue Lakes in March at the time of appropriation?

2 A. Well, I understand the argument you are
3 making.

4 Q. No, I'm asking you a question.

5 A. Sure.

6 Q. And I would like an answer.

7 A. Well, you are inferring water
8 availability that, you know -- I mean, it's
9 reasonable, but I can't say that that amount of
10 water would have been available during
11 those -- during that time period based upon one
12 measurement. I don't know. I would have to
13 look -- I would have to -- where is the rest of
14 the months? Show me what the annual variation
15 was in 1977.

16 Q. Well, did the Department collect data
17 to make those determinations back in 1977?

18 A. No.

19 Q. It doesn't exist then; right?

20 A. Well, Blue Lakes may have it. I don't
21 know. Of course, the measurements were not
22 required until the measurement act was passed by
23 the legislature in 1994.

24 Q. Sure. So are you imposing now a
25 standard that didn't exist at the time the water

1 rights were appropriated?
 2 A. No. Even in my initial response to
 3 Blue Lakes when the delivery call was made was,
 4 give us all the measurements that you think you
 5 have that would be pertinent to making the
 6 factual determination.

7 Q. And they are reported to the Department
 8 on a regular basis; are they not?

9 A. But we've only got them in since 1995.

10 Q. And you are aware that there are USGS
 11 day stations at the Blue Lakes springs at Alpheus
 12 Creek where data has been collected all the way
 13 back to the 1950s; correct?

14 A. During one or two months of the year.

15 Q. So you have the data that was

16 collected?

17 A. Only during one or two months during
 18 the year. I don't know if they collect data
 19 during the other months or not?

20 Q. Right.

21 A. We used what we had.

22 Q. Okay. So you are willing to assume
 23 that Pristine was diverting water when you have
 24 no basis for knowing that one way or the other;
 25 correct?

1 A. I don't know that I inferred it was
 2 less at the time of appropriation.

3 Q. Then how can you say that the water
 4 supply in 2004, when it's adequate only two
 5 months during the year, to deliver the full right
 6 is sufficient to fill the right?

7 A. At the time that Alpheus Creek is at
 8 the seasonal high. I've never said anything
 9 different.

10 Q. Does the water right entitle the user
 11 to delivery of the water only when the flows are
 12 at seasonal high?

13 A. If the water is available you could
 14 divert the quantity other than the seasonal high.

15 Q. Okay. And if curtailment of junior
 16 water rights is required to deliver the water, is
 17 the entitlement only to the water when it's at
 18 seasonal highs?

19 A. I don't think I've ever said that.

20 Q. Okay. So what is the import? What is
 21 the reason for you to make reference to seasonal
 22 highs here, such that the end result is that Blue
 23 Lakes will get delivery of its 45 cfs by
 24 administration only during two months of a
 25 12-month period of the year?

1 A. Well, the basis for making the
 2 assumption is that the measurements were
 3 generally reported combined in that.

4 Q. How do you know that? Where does it
 5 say that the Pristine's diversion is --

6 A. It doesn't.

7 Q. Okay.

8 A. But we know later in time than this
 9 that they were combined, and it wasn't until 1995
 10 that they began to be separated.

11 Q. Okay. So you have no basis for
 12 inferring that water supply in any time of the
 13 year, when Blue Lakes water right was
 14 appropriated, was less than necessary to deliver
 15 45 cfs; do you?

16 A. During any time of what year?

17 Q. At the time of appropriation -- this is
 18 a phrase you use in your order. You use the
 19 phrase "time of appropriation"?

20 A. Yes.

21 Q. So at the time of appropriation, you
 22 have no basis for inferring that there was less
 23 than -- that the water supply was less than
 24 adequate at any time during the course of the
 25 year to supply the full cfs; do you?

1 A. Well, even if you make the supposition
 2 that 7210 may have been filled for more than two
 3 months of the year at the time of appropriation,
 4 I mean, what about 7427? I mean, it seems like
 5 the path that you are on is saying that Blue
 6 Lakes is entitled to 145 cfs year round, even
 7 though it never existed year round.

8 Q. How do you know that it never existed
 9 year round?

10 A. Well --

11 Q. On what basis do you draw that
 12 conclusion? You have said --

13 A. Even --

14 Q. You have said that you don't have a
 15 full set of data from the water source at the
 16 time of appropriation; correct?

17 A. Right. I think I said, "even if it's
 18 not available."

19 Q. Okay. And the data point that we had
 20 looked at that was the basis for licensing the
 21 water right that wasn't at seasonal highs, show
 22 that adequate water was available during the time
 23 of appropriation of this water; correct?

24 A. At that point in time, sure.

25 Q. So the information that you do have all

1 supports the contrary conclusion that the water
 2 supply was adequate at 1977 or 1971 to supply
 3 this water right?
 4 A. I disagree with that conclusion.
 5 Q. On the basis of what data?
 6 A. One point. You can't make that
 7 conclusion on one point, one measurement.
 8 Q. Are you making that conclusion on the
 9 2004 flow data?
 10 A. Making what conclusion?
 11 Q. Are you drawing the conclusion that the
 12 water supply was inadequate at the time of
 13 appropriation based on the 2004 flow data?
 14 A. No.
 15 Q. Are you doing it on the basis of the
 16 1995 and 1996 data?
 17 A. No.
 18 Q. On what basis are you drawing your
 19 conclusion?
 20 A. I'm not drawing the conclusion.
 21 Q. Okay. Then you have to take the decree
 22 to mean what it says; don't you? That Blue Lakes
 23 is entitled to 45 cfs 24/7, 365; don't you?
 24 A. If it's there, they can divert it.
 25 Q. And if --

1 the time of appropriation; correct?
 2 A. Well, it shows that at one point in
 3 time.
 4 Q. Okay. And don't your decisions have to
 5 be based on the information you have, rather than
 6 on negative inferences from information you don't
 7 have?
 8 A. It's not based on negative inferences
 9 from information we don't have.
 10 Q. So you have no basis to infer in 1977,
 11 that there was not adequate water to supply the
 12 45 cfs right at any time during --
 13 A. I didn't make that kind of inference.
 14 Q. And you can't; can you?
 15 A. Nor did I.
 16 MR. RASSIER: Do you want to take a
 17 break now, Karl? It's 11:00.
 18 THE WITNESS: It's 11:00?
 19 MR. RASSIER: Yeah.
 20 THE WITNESS: Sure.
 21 MR. STEENSON: Okay. We can take a
 22 break.
 23 (A recess was had.)
 24 MR. STEENSON: Okay. Back on the
 25 record.

1 A. But you are saying, they are entitled
 2 to it. And the quantity is the maximum
 3 authorized rate. It's not an entitlement.
 4 Q. So what duty is imposed on the
 5 Department then to administer junior rights in
 6 order to deliver the water represented by the
 7 decree?
 8 A. Well, I mean, if curtailing or
 9 administering junior-priority rights will result
 10 in a meaningful quantity of water to the senior,
 11 then the Department has an obligation to
 12 administer those rights. And that's exactly what
 13 we were attempting to do.
 14 Q. And that proposition doesn't have
 15 anything to do with seasonal irrigation; does it?
 16 A. Oh, yes, it does. Because you don't
 17 administer junior rights in an attempt to deliver
 18 water that wouldn't have been there anyway.
 19 Q. But you don't know what water would
 20 have been there any way in 1977; do you?
 21 A. We don't have as much data from that
 22 time period as we do now.
 23 Q. But the field exam we looked at shows
 24 that there was substantially more water than
 25 would be necessary to fill that 45 cfs right at

1 Q. (BY MR. STEENSON) I want to conclude
 2 on this issue. I think you understand its
 3 significance, Karl, because it appears to me, and
 4 it appears to Blue Lakes, that as a result of
 5 this finding, its 45 cfs right entitles it to
 6 priority distribution of no more than the flows
 7 that are referenced in paragraph 60; is that
 8 correct?
 9 A. I don't think that's correct. You keep
 10 talking about what Blue Lakes is entitled to.
 11 And that is not what the quantity element of a
 12 water right is.
 13 Q. What is a water right? Is a water
 14 right an entitlement or not?
 15 A. It's an authorization to use water for
 16 a defined beneficial use.
 17 Q. It's a right?
 18 A. Sure, it's a real right, a real
 19 property right.
 20 Q. It authorizes or entitles the person to
 21 use -- to divert water from a source within the
 22 state of Idaho for the beneficial use stated
 23 therein; correct?
 24 A. Yes, up to that amount. The water was
 25 defined around a beneficial use, not the

1 quantity.

2 Q. Okay. But irrespective of that
3 discussion of what a "right" means. The question
4 is: What amount of water -- if Blue Lakes is
5 receiving 134.9 cfs average during the month of
6 February, it's not receiving the decreed amount;
7 correct?

8 A. Correct.

9 Q. What amount is it entitled to? What
10 amount can it call for under the 45 cfs right in,
11 let's pick March, of the year?

12 A. Well, as we've spent the last hour or
13 more debating back and forth, it is not as simple
14 as you want to make it. It's more complex than
15 just, we're not getting this quantity; therefore,
16 you curtail the junior.

17 It is not that simple. Because of the
18 fact that the juniors are diverting from a
19 different source, not the same source.
20 Hydraulically connected, yes. The stream
21 variation is of a different character than the
22 variation in normal stream flows. I mean, stream
23 flows go up and down, certainly.

24 As these fish propagation rights -- and
25 I'm generalizing now, as they were appropriated,

1 Q. Okay. Let's just talk about March of
2 the year. March of 2004, Blue Lakes is receiving
3 134 cfs, according to your table, on an average
4 basis. Do you see that?

5 A. Mm-hmm.

6 Q. Okay. Is that amount of water adequate
7 to fill its water right, its two water rights,
8 the first priority and the second priority water
9 rights in March, 134.07 cfs?

10 A. It's less than the -- let's see. Yeah,
11 it's less than the sum of the first two rights,
12 which is about 145 cfs. So this is less.

13 Q. So why isn't it the case then, that
14 based on March 2004, 134 cfs, that junior water
15 rights are subject to curtailment to the extent
16 that they are affecting -- adversely affecting
17 the flow of water to Blue Lakes' point of
18 diversion in March of the year?

19 A. Well, if the junior right is adversely
20 affecting the quantity of water that otherwise
21 would be available to the senior, and that
22 quantity is within the maximum amount authorized,
23 they are entitled to seek administration. I've
24 never said they weren't.

25 Q. Okay. So then why do you not apply the

1 you know, certainly, some of the earlier rights
2 were filled all the time. And as rights were
3 added at facilities, at some point, rights
4 weren't filled all the time because of the
5 variation. And that variation existed at the
6 time the rights were appropriated. It exists
7 today. And it has to be -- it is an aspect of
8 how these rights are administered.

9 Q. So if Blue Lakes under its first two
10 rights is entitled to 145 cfs, or its rights say
11 that much, and in March, it's receiving 134, is
12 it short? Is it in a position to call for the
13 Department to exercise its responsibility to
14 administer water rights, or not?

15 A. A right holder can always request
16 administration. I mean, that's part and parcel
17 of what you can do. But I guess I'm trying to
18 come at it a little differently.

19 A senior right holder is not entitled
20 to seek the curtailment of junior-priority rights
21 unless that curtailment will result in a
22 meaningful supply of water for the senior.
23 That's a general principle that applies in ground
24 water systems, in surface water systems, and
25 that's the principle we're trying to apply.

1 1971 priority water right here to the
2 administration call provided in this order? Why
3 do you essentially take it off the table, say
4 it's being filled, and say that only Blue Lakes'
5 third priority water right will be recognized for
6 purposes of administering junior ground water
7 rights?

8 A. That's the determination that we made
9 at the time, is that the 1971 right was being
10 filled when Alpheus Creek was at its seasonal
11 highs. But clearly the third right was not,
12 clearly.

13 Q. I understand the determination that you
14 make. But is it your position that the second
15 priority right is being -- strike that question.

16 You recognize that aquaculture
17 facilities operate by diverting year round to
18 raise fish?

19 A. They divert water year round to raise
20 fish. Most divert more water at times of the
21 year than others, because the water is not
22 available.

23 Q. Okay. And you realize that the
24 lifecycle of fish, and requirements of the fish
25 is such that they require constant flows of water

1 throughout their lifecycle?
 2 A. I'm not a fish person. So I know fish
 3 need water, but that's about the extent of, you
 4 know, what I know. I'm not a fish propagator.
 5 That's not my knowledge basis.
 6 Q. So you don't know how aquaculture
 7 facilities beneficially use water?
 8 A. Well, in general, you know, I
 9 can't -- I know that the facilities use variable
 10 amounts of water during the year, and that they
 11 adjust their operations accordingly.
 12 Q. I'm going to conclude here, you would
 13 be happy to hear, on this point. But I just want
 14 to make sure I have this right.
 15 Based on your observation of seasonal
 16 variability and flows during the '96 time frame
 17 and the 2004 time frame, you've determined that
 18 the seasonal variability existed at the time of
 19 appropriation; correct?
 20 A. Correct.
 21 Q. Okay. And you've determined that that
 22 seasonal variability was such that Blue Lakes' 45
 23 cfs right is satisfied on an annual basis by
 24 seasonal maximum flows that are sufficient to
 25 deliver 45 cfs; correct?

1 seasonal variation, and then conclude that there
 2 was sufficient water to fill that right at the
 3 time of appropriation. We don't know.
 4 Q. You know --
 5 A. We know that the seasonal variation
 6 existed at the time of appropriation. We know it
 7 exists today. We know that the first right
 8 wasn't being injured. We know that the third one
 9 was.
 10 Q. Looking back at Exhibit 80. If you can
 11 turn to the page where there are the measurements
 12 of 1977.
 13 A. (Witness complying.)
 14 Q. Do you see that there is an October
 15 measurement there, and a March measurement there
 16 in 1977?
 17 A. Yes.
 18 Q. Do you see the March 3rd, 1977
 19 measurement to the Perrine Ditch is 205 cfs?
 20 A. Yes.
 21 Q. And that measurement was taken two days
 22 after the Department's field inspection
 23 measurement; is that correct?
 24 A. It appears that it was, yes.
 25 Q. That's 15 cfs more than the 190 that

1 A. I'd state it differently.
 2 Q. Okay.
 3 A. I would try to reach some mutual
 4 understanding here. When looking at these first
 5 two rights -- or, no, all three rights, looking
 6 at all three of Blue Lakes' rights, it was clear
 7 that the first one was not being injured. Okay?
 8 It wasn't clear that the second one was
 9 being injured. But it was clear that the third
 10 one was being injured, because of the seasonal
 11 variability. That's really the determination
 12 that's made here. The third one is being
 13 injured. The first one isn't. It's not clear
 14 that the second one is being injured.
 15 Q. Okay. In looking at the majority of
 16 the graph, the majority of the year there is not
 17 enough water to deliver that second priority
 18 right in 2004; right?
 19 A. Correct.
 20 Q. So why is it not being injured during
 21 those months of the year when the water supply is
 22 not adequate to deliver 45 cfs?
 23 A. I just tried to say, we don't know that
 24 it is being injured, because we don't have -- we
 25 don't -- we can't use one point to reconstruct a

1 the Department measured; correct?
 2 A. Apparently.
 3 Q. Wouldn't that indicate that the 190.4
 4 cfs measurement represents the amount of water
 5 that Blue Lakes was diverting, and does not
 6 include the amount of water that was going to
 7 Pristine's predecessors?
 8 A. No, I don't think it says that. I
 9 don't think you can determine that.
 10 Q. Do you think the diversions of the
 11 Perrine Ditch increased by 15 cfs over the course
 12 of two days?
 13 A. No. All I'm saying is, these
 14 measurements, it is tough to go back that far in
 15 time and decipher what these measurements mean.
 16 Q. Okay.
 17 A. And let me give you an example using
 18 this data in this exhibit. March/April has
 19 generally been the low point for the spring
 20 discharge. October/November has generally been
 21 the high point. Yet, in 1977, on March 3rd, it's
 22 reported that Perrine Ditch was diverting 205.7
 23 cfs. Yet on October 31st, the Perrine Ditch was
 24 only diverting 177 cfs.
 25 Q. And from that, you conclude?

1 A. It just shows that it's difficult to
 2 infer much of anything from these early
 3 measurements, other than what the numbers mean
 4 themselves. If these numbers are intended to
 5 represent seasonal variation, I guess that's what
 6 you are trying to imply from this, then the
 7 October '77 measurement in October is out of
 8 phase with the March measurement. There is
 9 something inconsistent here. And yet you want to
 10 infer consistency from something that is
 11 inconsistent.

12 Q. These are the measurements that you
 13 relied upon --

14 A. I looked at one point in time to see
 15 what the maximum amount of water had been
 16 diverted. You know, I was looking to see if Blue
 17 Lakes diverted the maximum amount that it was
 18 entitled to, and it had.

19 Q. Why were you doing that?

20 A. To confirm that it was making full
 21 beneficial use of the quantity that it was
 22 authorized to divert.

23 Q. Wasn't that done in the adjudication?

24 A. No, the adjudication determined what
 25 was the maximum amount that was authorized.

1 A. Correct.

2 Q. -- of the water right, and to make a
 3 recommendation to the SRBA --

4 A. That's right.

5 Q. -- that was based on the --

6 A. That's right.

7 Q. And that would include a determination
 8 if there has been a forfeiture --

9 A. No.

10 Q. -- or substantial change in the use of
 11 the water right after the time of licensure, so
 12 that the water right would be recommended for
 13 less than the -- to the court for less than the
 14 usually established amount; isn't that correct?

15 A. No, that isn't correct.

16 Q. So --

17 A. In the instances where rights have been
 18 licensed prior to the adjudication, the
 19 recommendation was for the licensed amount.

20 Q. Okay. So you didn't do investigations
 21 with respect to the licensed water rights?

22 A. Not if it had been licensed. We didn't
 23 do any further investigation beyond the time that
 24 the license was issued.

25 Q. Was the choice that you and the

1 Q. Determined the maximum, confirmed the
 2 beneficial use; did it not?

3 A. Yeah -- umm --

4 Q. Isn't that what the adjudication is
 5 for?

6 A. Well, the adjudication defines the
 7 beneficial use that can be made, and then the
 8 elements are the constraints to the use of water
 9 for that beneficial use, and the quantity
 10 is -- element is one of those elements that
 11 constrains how much water can be diverted for the
 12 defined beneficial use.

13 Q. And licenses are issued based on actual
 14 beneficial use?

15 A. Sure. But we know as time goes on,
 16 that in some cases -- I'm not saying the case of
 17 Blue Lakes. But for some reason, whatever
 18 reason, people reduce the amount of beneficial
 19 use they are making, and they consequently use
 20 less water.

21 Q. Then one of the tasks assigned to
 22 yourself, when you were working for the
 23 Department, by statute was to do an investigation
 24 to determine the nature and extent of beneficial
 25 use --

1 Department made with respect to how you were
 2 going to meet your statutory duties; correct?

3 A. That's correct.

4 Q. Okay. And so nonetheless, however, you
 5 met the statutory requirement to investigate the
 6 nature and extent of beneficial use of each water
 7 right, your recommendations would be in accorded
 8 a prima fascia weight? They are presumed to be
 9 accurate, unless someone could produce contrary
 10 evidence; correct?

11 A. Right.

12 Q. And unless that occurred, and the court
 13 decided otherwise, the water right was decreed so
 14 that it represented each of the elements
 15 consistent with its historical beneficial use;
 16 correct?

17 A. Correct.

18 Q. Now, here, this issue is different than
 19 seasonal variation. You are looking at -- as you
 20 say in paragraph 59, you look back in time and it
 21 shows 1980 to find a diversion rate that as you
 22 say, is the maximum amount of water known to have
 23 been diverted from Alpheus Creek.

24 So you are coming up with a number
 25 there that is contrary to the decreed amount of

1 the Blue Lakes' water rights, the aggregate
2 amount of 197.06; right?

3 A. No, that is not what we're doing.

4 Q. In paragraph 59 isn't 184.7 different
5 than 197.06?

6 A. Sure. But the 197.06 is the decreed
7 amount. That's the maximum amount that Blue
8 Lakes is authorized to divert.

9 Q. Why did you conduct this investigation
10 to determine the maximum amount of water known to
11 be diverted?

12 A. Well, there is a difference between the
13 maximum amount that a right holder can divert,
14 and the amount that he might divert. This was
15 simply a picture of how much was diverted at one
16 point in time subsequent to the right being
17 appropriated.

18 Q. What's the purpose of this number in
19 the order?

20 A. It was simply one aspect of how the
21 right had historically been used. It's just one
22 aspect of it.

23 Q. And then in the order you conclude that
24 184.7 cfs, and page 27, paragraph 31, you
25 conclude that for purposes of administration 183

1 Q. Because of your determination back in
2 paragraph 59 of page 13, that 184.7 cfs is the
3 maximum amount known to be diverted by Blue
4 Lakes?

5 A. That's correct.

6 Q. So you are determining how much of the
7 right you are going to recognize for purposes of
8 administering junior ground water rights --

9 A. No.

10 Q. -- to be 183 cfs?

11 A. No. We're saying that Blue Lakes is
12 entitled to curtailment of junior-priority rights
13 to provide the 183 cfs.

14 Q. And why not 197.06?

15 A. Why not the 197?

16 Q. Yes.

17 A. Well, in part -- I mean, part of it had
18 been subordinated. We're not going to curtail
19 junior-priority -- well, maybe the current person
20 would. I wasn't willing to curtail
21 junior-priority rights to provide water for a
22 portion of a right that had been subordinated.

23 Q. Okay. How much had been subordinated?

24 A. It's the one point, whatever, cfs.

25 Q. That was subordinated to whom?

1 cfs is based on this prior determination you made
2 of the historical --

3 A. Which one?

4 Q. Paragraph 31 at page 27.

5 A. Okay.

6 Q. You are making a determination of
7 material injury there; aren't you? You say down
8 in the paragraph, "Material injury will cease
9 when." And it goes on, and it says, "seasonal
10 maximum reaches 183 cfs."

11 So there you are saying that the full
12 extent of Blue Lakes' injury is relieved, is
13 satisfied when Blue Lakes receives 183 cfs, and
14 that's less than the decreed amount?

15 A. Correct. And all that this is saying
16 is that; whereas, Blue Lakes is authorized to
17 divert up to the maximum amount of the water
18 right for the various reasons, which you are free
19 to disagree with, obviously, but for the
20 rationale laid out here, we were only going to
21 curtail junior-priority ground water use to
22 provide the 183 cfs.

23 Q. Why?

24 A. For the various reasons that are laid
25 out.

1 A. It was the country club. It was the
2 nighttime irrigation.

3 Q. So that was an agreement by Blue Lakes
4 that it would not call for curtailment of the
5 country club's water right to the extent of one
6 point cfs?

7 A. And you probably will disagree with
8 this principle. But a right holder doesn't have
9 the right to select who he's going to curtail. I
10 mean, you can't selectively subordinate.

11 Q. Why not?

12 A. Because it puts more of the burden on
13 the juniors.

14 Q. You mean, I can't as a water user agree
15 for whatever reason, maybe Phil pays me a whole
16 bunch of money, to say, leave my water right
17 alone when it comes to curtailment to deliver
18 water to you. I say, "Okay."

19 A. Of course you can.

20 Q. I can make that individual agreement
21 with Phil?

22 A. Of course, you can.

23 Q. And you are saying that affects whether
24 John's water right is going to be curtailed to
25 deliver my water --

1 A. No.
 2 Q. -- that agreement with Phil?
 3 A. It could. I mean, here's the
 4 situation, I guess, you've got right holder A
 5 with the senior-priority diverting from the
 6 source, right holder B junior-priority, the same
 7 source. Right holder A's right isn't being
 8 filled. Let's say, it's 10 cfs, that it's short
 9 10 cfs, and the 10 cfs could be diverted and
 10 beneficially used.
 11 Right holder B, the junior, is
 12 diverting 10 cfs. And but for a subordination
 13 agreement, right holder B would be curtailed.
 14 But right holder A has said, okay. I'll agree to
 15 an exchange for whatever consideration not to
 16 seek your curtailment. Instead I'm going to go
 17 to right holders C, D, E, and so on. We're going
 18 to curtail them to, so I get my 10 cfs.
 19 Q. What's wrong with that?
 20 A. You can't do that.
 21 Q. What statute, or case, or rule --
 22 A. Because --
 23 Q. -- or rule provides the principle that
 24 you just enunciated?
 25 A. It's not in the rules. It's not in the

1 administration?
 2 A. No, it's not that we weren't willing to
 3 recognize it. We recognized the quantity as the
 4 maximum amount to be diverted. Fine.
 5 Q. But for purposes of administering --
 6 A. No, for seeking the curtailment of
 7 juniors.
 8 Q. However you want to put it.
 9 A. Yeah, I determined that it wasn't
 10 appropriate to curtail juniors for a quantity
 11 that had not been diverted.
 12 Q. And that is on the basis of this
 13 finding in paragraph 59?
 14 A. Not only that. I mean, go to your own
 15 information from 19 -- what was it -- 77 --
 16 Q. Uh-huh.
 17 A. -- where you pointed to 190 cfs. I
 18 still think it's the right assumption, if you
 19 will, or the reasonable assumption is to assume
 20 that Pristine Springs' 25 cfs is included in the
 21 that 190. And if that's the case, then the
 22 amount Blue Lakes was diverting was 165 cfs.
 23 Q. So was it licensed incorrectly?
 24 A. It was licensed the way it was
 25 licensed. And, you know, whether it's incorrect

1 statutes. It is a principle of administering
 2 water under the prior appropriation system.
 3 Q. What --
 4 A. You can't impermissibly shift the
 5 burden to juniors that otherwise wouldn't have
 6 been curtailed, but for your subordination.
 7 Q. From what case do you get that
 8 principle?
 9 A. Oh, I think there is case law. I can't
 10 recall right off the top of my head what case I
 11 would point to. But I think there is case law on
 12 that.
 13 Q. There is no statute that --
 14 A. No, there is no statute.
 15 Q. And there is no rule that supports that
 16 principle?
 17 A. Not that I'm aware of.
 18 Q. Okay. So notwithstanding that theory,
 19 that covers 1.3 cfs.
 20 A. Uh-huh.
 21 Q. Still 183 is 14.06 cfs less than the
 22 decreed amounts of Blue Lakes' water rights. So
 23 what is the basis for the remainder of the water
 24 right that you are not recognizing the remainder
 25 of the water right for purposes of

1 or not, that's the license.
 2 Q. The conclusion from your observations
 3 is that it was licensed incorrectly; right?
 4 A. I didn't say that. I just said it was
 5 licensed the way it was licensed.
 6 Q. Do you believe the licensed amount was
 7 correct.
 8 A. I don't know. It was licensed the way
 9 it was licensed.
 10 Q. The aggregate licensed amount was
 11 197.06 cfs; correct?
 12 A. They were licensed the way they were
 13 licensed. And in other rights that we've
 14 investigated, we know that there have been
 15 licensing errors.
 16 Q. So this is a licensing error?
 17 A. I didn't reach that conclusion.
 18 Q. But you --
 19 A. I just said, I can't tell you why it
 20 was licensed at that amount.
 21 Q. But you don't think --
 22 A. But it was licensed at that amount.
 23 That was the basis for our recommendation to the
 24 SRBA. And that quantity as decreed is the
 25 amount, the maximum amount that Blue Lakes is

1 authorized to divert, period to divert.
 2 Q. It's not the maximum amount that's
 3 authorized to call for; was it, under your
 4 version of findings?
 5 A. In my view, to seek curtailment.
 6 That's correct.
 7 Q. So its priority does not apply --
 8 A. Sure, its priority applies.
 9 Q. -- there is a difference between -- no.
 10 The effect of priority is as against other water
 11 users; correct? The purpose of priority is for
 12 distributing water in times of shortage; correct?
 13 A. Correct.
 14 Q. So the import of Blue Lakes' priority
 15 is the extent to which it will be recognized in
 16 times of shortage by the Department for purposes
 17 of delivering water; correct?
 18 A. We're not talking about the priority.
 19 We're talking about the quantity associated with
 20 the priority.
 21 Q. But what you are saying is, you will
 22 only administer Blue Lakes' priority as against
 23 junior ground water right users to the extent of
 24 184.7 cfs; correct?
 25 A. Actually, to the extent of 183 cfs.

1 Q. Okay. So your conclusion is, the
 2 Department's obligation to respond to the Blue
 3 Lakes call to curtail junior ground water holders
 4 extends only to 183 cfs, because of your finding
 5 that Blue Lakes hasn't used more than that in the
 6 past, and subordinated 1.3 cfs to the Country
 7 Club; is that correct?
 8 A. That's correct.
 9 Q. Okay. Are you familiar with the
 10 reconstruction of American Falls Reservoir in
 11 1977?
 12 A. Generally.
 13 Q. Do you know that that occurred in the
 14 fall of 1977?
 15 A. I don't know when it occurred. I know
 16 it occurred in about that time frame.
 17 Q. So that may have affected the October
 18 1977 measurement?
 19 A. It may have, or it may not have. I
 20 don't know. Lots of things could have affected
 21 that October 1977 measurement.
 22 Q. Just like Pristine's predecessor may or
 23 may not be diverting water it was entitled to;
 24 correct?
 25 A. Well, we believe it was.

1 Q. Correct. So you have deduced the
 2 decreed amount of the water right that you will
 3 recognize for purposes of administering Blue
 4 Lakes' priority has against junior ground water
 5 rights?
 6 A. That's your characterization. That's
 7 not mine. My characterization is, it's not
 8 appropriate to seek the curtailment of junior
 9 rights in distributing water in an amount that
 10 has not been previously diverted to beneficial
 11 use.
 12 Q. So the difference between the way I put
 13 it, and the way you just put it, is you are
 14 saying that Blue Lakes isn't entitled to make a
 15 call for enforcement of its priority against
 16 junior ground water owners for any more than 183
 17 cfs?
 18 A. Again, that's your characterization,
 19 not mine. Blue Lakes is entitled to make a call
 20 any time that it believes junior-priority rights
 21 are interfering with its senior right.
 22 Q. So then the real issue is whether it's
 23 the Department's responsibility to respond to the
 24 call?
 25 A. That's the issue.

1 Q. And the same kind of bare assumption
 2 without any supporting information?
 3 A. I disagree with that. I've reached
 4 that conclusion based upon the entirety of what
 5 was in the water rights file.
 6 Q. Okay. And, again, this October 1977
 7 measurement shows that there was still a
 8 sufficient amount of water being diverted into
 9 the Perrine Ditch in October of 1977 to deliver
 10 the full 45 cfs to the second priority of Blue
 11 Lakes right; isn't that correct?
 12 A. That would appear to be correct.
 13 Q. So from the two data points that you
 14 have from different seasons of the year for 1977,
 15 showing that there was adequate water to fill the
 16 full decrees of the licensed amount of that water
 17 right; correct?
 18 A. At two points in time, that's correct.
 19 Q. Now --
 20 A. Or I should say, it appears to be
 21 correct at two points in time.
 22 Q. Okay. Now, with respect to the Eastern
 23 Snake Plain Aquifer, in your experience has the
 24 Department ever distinguished between natural and
 25 artificial ground water in the aquifer for the

1 purposes of administration?
 2 A. No.
 3 Q. Okay. In other words, once the water
 4 is in the aquifer for purposes of distribution,
 5 it doesn't matter where it came from, whether it
 6 came from seeping through a canal, or seeping
 7 through a stream that was fed by natural flow
 8 from the mountains; correct?
 9 A. Well, it matters, but it's still
 10 subject to appropriation.
 11 Q. And still subject to priority
 12 distribution; correct?
 13 A. Sure.
 14 Q. And for those purposes, it doesn't
 15 really matter where the water came from in terms
 16 of the Department implementing its
 17 responsibilities of the law?
 18 A. It can matter. I'll give you another
 19 example, I suppose. If you have a significant
 20 amount of leakage from a canal that can be -- and
 21 the canal owner, for whatever reason, chooses not
 22 to capture that leakage and apply it to
 23 beneficial use, an appropriator can -- under
 24 Idaho law can appropriate that water as waste
 25 water.

1 Q. Do you recall being the Hearing Officer
 2 for that hearing?
 3 A. Sure, I was, but that doesn't mean I
 4 remember aspects of it.
 5 Q. I'm just asking if you recall it?
 6 A. I recall the hearing.
 7 Q. Okay. And do you recall a statement
 8 you made at the end of the hearing, that in your
 9 view, mitigation that is offered as an
 10 alternative to curtailment, the curtailment has
 11 to be as real as curtailment?
 12 A. Yes.
 13 Q. Can you explain what you mean by that,
 14 or meant at the time?
 15 A. Well, I think it's pretty simple.
 16 That, you know, to the extent curtailment would
 17 produce a meaningful amount of water to the
 18 holder of a senior right that's being injured, if
 19 that out-of-priority depletion is going to be
 20 mitigated such that the out-of-priority diversion
 21 can continue, then the mitigation has to produce
 22 an equal amount of meaningful water supply to the
 23 senior as would have curtailment.
 24 Q. In other words, it has to have an
 25 equivalent effect of curtailment?

1 And I think it's important when that
 2 appropriation is made to recognize what the
 3 source of that water is, it's waste water. And
 4 it can affect how the right is subsequently
 5 administered. Because in this hypothetical
 6 example, the canal company repairs whatever was
 7 contributing to the leakage, and the waste water
 8 is no longer there. Can the holder of that waste
 9 water right seek the curtailment of
 10 junior-priority rights? Generally, no, unless
 11 they are from the same source of waste water.
 12 Q. But as between two appropriators,
 13 whatever water is there, whether it's there by
 14 waste or some other means, priority distribution
 15 applies?
 16 A. Certainly.
 17 Q. You distribute in accordance with
 18 priority?
 19 A. Sure.
 20 Q. Now, with regard to mitigation, during
 21 the hearing last year, it was petitioned for
 22 reconsideration for the extent of the credit that
 23 it was given for its '05 mitigation. Do you
 24 recall that hearing?
 25 A. Well, in general, I don't.

1 A. That's another way to put it, yes.
 2 Q. Okay. Now, in your order on page 28,
 3 as I understand it, in addition to identifying
 4 curtailment as an outcome, you offer three
 5 mitigation alternatives. And I want to confirm
 6 that with you.
 7 On page 28, under paragraph 1, in the
 8 middle of the paragraph. There is a sentence
 9 that in part reads, "Must submit a plan or plans
 10 to the Director to provide mitigation by
 11 offsetting the entirety of the depletions for the
 12 ESPA under such rights."
 13 A. Yes.
 14 Q. I'll call that mitigation alternative
 15 number 1. Now, does that mean offset the
 16 entirety of consumptive use of water under the
 17 identified ground water rights, whatever they
 18 are?
 19 A. Yes.
 20 Q. Okay.
 21 A. Another way to look at it is, you
 22 completely mitigate the depletions of the
 23 aquifer. It's a pretty high standard, but you
 24 completely mitigate depletion of the aquifer.
 25 That's what that phrase meant.

1 Q. And did you have any ideas about how
 2 that would be implemented? How it would be met?
 3 A. I did not.
 4 Q. And with respect to the second method,
 5 as I understand it, it was deliver a specific
 6 quantity of water to Blue Lakes' headgate?
 7 A. Correct.
 8 Q. Is that correct?
 9 A. Correct.
 10 Q. Based on your 20 percent assessment
 11 that the Blue Lakes' springs flow and the Alpheus
 12 Creek flow would have been 20 percent of the
 13 reach of what it was; correct?
 14 A. Correct.
 15 Q. And the third method was to mitigate,
 16 basically, to the reach, and do that over
 17 time -- up to, in this reach, up to 51 cfs?
 18 A. Correct.
 19 Q. And the standard that you mentioned
 20 before of certainty applies to any one of these
 21 mitigation alternatives; is that correct?
 22 A. Correct.
 23 Q. And is it your view that the ground
 24 water users met their obligation in 2005?
 25 A. What they proposed, when they proposed

1 You know, in an effort to keep this as
 2 straightforward as we could, given the myriad of
 3 complexities, the assumption essentially was made
 4 that if the effects were equivalent at steady
 5 state, they essentially would be equivalent
 6 during the transient conditions prior to steady
 7 state.
 8 Q. Okay. So the mitigation provided in
 9 2005, for example, 10 cfs, that was evaluated at
 10 steady state; correct?
 11 A. Right.
 12 Q. So each of the year's mitigation was to
 13 be evaluated at steady state?
 14 A. Correct.
 15 Q. Okay. And then similarly, performance
 16 after the fact was evaluated at steady state
 17 using the model?
 18 A. Correct.
 19 Q. Now, I would like you to turn to
 20 Exhibit 35. I know you weren't involved in
 21 preparing this order, because it was issued this
 22 year. I want to ask you a question, and see if
 23 you can answer based on what your testimony and
 24 your involvement in mitigation prior --
 25 A. I have to tell you, I've never seen

1 it, you know, what we finally -- and I don't
 2 remember exactly what we finally approved. But
 3 what we finally approved would have been based
 4 upon a determination that we expected it would
 5 provide the equivalent amount of water to
 6 curtailment.
 7 Q. And in the after-the-fact accounting,
 8 did you find that they provided the amount of
 9 mitigation required?
 10 A. I don't recall.
 11 Q. Okay. And then with respect to 2006,
 12 what, in your view, happened with respect to the
 13 mitigation that was supposed to be provided by
 14 ground water users in 2006?
 15 A. I don't recall. I would have to go
 16 back and look at the history of what happened. I
 17 just don't remember.
 18 Q. Okay. Now, yesterday you talked about
 19 mitigation being evaluated in terms of its steady
 20 state effects; is that correct?
 21 A. Correct.
 22 Q. So I take it then that the mitigation
 23 plans were not to be evaluated in terms of their
 24 transient effects; is that correct?
 25 A. I'm not sure that's entirely correct.

1 this, of course.
 2 Q. You've never seen it?
 3 A. No.
 4 Q. Well, maybe it's better that I just ask
 5 you this: The water that would result from a
 6 mitigation activity in a year at steady state, as
 7 you discussed, would be evaluated over the course
 8 of many years; correct?
 9 A. Yes.
 10 Q. So under the mitigation options that
 11 you offered, it wouldn't be appropriate to
 12 evaluate a mitigation plan only in terms of its
 13 first-year benefits, of the benefits that would
 14 result from the mitigation activities that
 15 occurred in the same year?
 16 A. Well, that isn't the framework that I
 17 set up in the orders that I issued, but I'm not
 18 prepared to say it would be inappropriate. I
 19 mean, the general principle that you are trying
 20 to apply is that in any year, if out-of-priority
 21 diversion and depletion is going to occur, then
 22 the amount of that depletion that causes injury
 23 needs to be replaced. And if it's not replaced,
 24 then curtailment should occur.
 25 Now, I don't know the context of that

1 question. But is it inappropriate to do it on
2 the year-by-year basis? Not necessarily. What I
3 did is I looked at mitigation at steady state,
4 under the assumption that each and every year up
5 to steady state, would essentially be equivalent
6 to curtailment.

7 Q. Okay. So --

8 A. But that doesn't mean that you couldn't
9 craft a mitigation -- a different type of
10 mitigation on a year-by-year basis through time,
11 address the amount of that particular year.

12 Q. So the obligation for 2007, for
13 example, you know from your prior order is 30 cfs
14 for the reach that Blue Lakes is in; correct?

15 A. I believe that's correct, yes.

16 Q. So for whatever was to be proposed for
17 2007, would have to produce either at steady
18 state, or during whatever time frame is desired,
19 30 cfs to the reach; isn't that correct?

20 A. Well, under my order, it would have had
21 to produce 30 cfs at steady state conditions
22 under the order that I issued.

23 Q. Now, have you heard the anecdotal
24 evidence the term was used the springs'
25 users -- that I have heard springs' users give

1 discharge with when the pumps went on. And as I
2 recall, we could not detect any pattern in any
3 spring complex.

4 But, you know, there were, not
5 surprisingly, right holders that did not allow us
6 to put on hour meters. As I recall, there were
7 some that didn't allow it. And we perhaps could
8 have found some statutory basis for mandating it.
9 But we didn't -- I don't recall that we pursued
10 it. So we put the hour meters on the pumps where
11 we could.

12 Q. And finally, there has been a
13 characterization of your May 19th, 2005 orders as
14 emergency orders. Is there a statutory or
15 regulatory provision for the issuance of
16 emergency orders by the Department that you know
17 of?

18 A. I believe so. I'd have to look at the
19 order to see what we cited. You know, I believe
20 that the applicable statutory provision is Idaho
21 Code 67-5247.

22 Q. Is that referenced in your order?

23 A. Yes, it is.

24 Q. At what paragraph?

25 A. Page 31, the top of the page.

1 that they observed their springs to decline from
2 the beginning of when the irrigation season
3 starts to occur when the pumps go on?

4 A. I believe I've heard that assertion,
5 yes.

6 Q. During your time with the Department,
7 have you or the Department done anything to
8 follow-up and investigate those reports further?

9 A. We have.

10 Q. Okay. And what did you do?

11 A. Oh, boy. It was a study that, I
12 believe it was Tim Luke, that we asked to have
13 done. I think it was Tim Luke. If it wasn't
14 Tim, it was somebody in his section.

15 But essentially what we did, or what I
16 asked him to do was to install hour meters on the
17 pumps, which would then record the time, the
18 specific time that those pumps went on, and then
19 state the specific time when the pumps went off.

20 And then the evaluation that was to be
21 conducted to see if we could detect or discern
22 any correlation between when the pumps went on,
23 as documented by the hour meters and measured
24 spring discharged, to see whether there was any
25 correlation in the diminishment of spring

1 Q. Okay. And the order in any case was, I
2 take it, within the process provided by the
3 Conjunctive Management Rules; is that correct?

4 A. As I understood the rules, that is
5 correct.

6 Q. Okay. So if -- it wasn't an emergency
7 in terms of your application of the Conjunctive
8 Management Rules; was it?

9 A. I'm not sure I understand your
10 question. I mean, the emergency was, we were at
11 the beginning of the irrigation season. The
12 senior right holders needed some certainty as to
13 what was going to happen. The junior right
14 holders needed certainty as to what was going to
15 happen. That was the emergency.

16 Q. So it was an emergency only in terms of
17 timing? In other words, in the normal
18 administrative process, as you've described it,
19 watermasters administer water rights according to
20 the decrees, licenses, permits without the
21 director issuing an order; isn't that correct?

22 A. Not in all cases.

23 Q. But normally?

24 A. No.

25 Q. Was it normal for you, while you worked

1 for the Department, to issue orders before leases
2 go, for example, administer water rights in the
3 Boise?

4 A. Not in the Boise -- not -- generally,
5 not in the Boise. But in Big Lost, we generally
6 issued an order every year instructing the
7 watermaster how to determine and apply the Futile
8 Call Doctrine. And it was done by order. And it
9 was most every -- not absolutely every year, but
10 most every year we did that.

11 Q. And you didn't issue an order in the
12 Clear Lakes versus Crystal Springs situation; did
13 you? At least issue instructions --

14 A. No instructions.

15 Q. -- an order that was subject to itself
16 appealed by its terms?

17 A. Sure, it was subject to appeal.

18 Q. In fact, you were very careful in those
19 instructions to notify the parties that they were
20 instructions related to the watermaster and not
21 an order?

22 A. Sure. But those instructions still
23 represented a determination, that if an entity
24 disagreed with that determination, they were
25 entitled to a hearing pursuant to Idaho Code.

1 looked at, flow data, Department files,
2 information available to you. At the time, you
3 completed those investigations, did you believe
4 you had sufficient information and data to make
5 the determinations you made in the orders?

6 A. I'm trying to think of how best to
7 characterize it. Did we have all the information
8 we would have liked? No. Did we feel that we
9 were required to take action based upon the
10 information we had? Yes. I suppose whether it's
11 sufficient is up for debate.

12 Q. Well, once you received the information
13 that you had, and you conducted your
14 investigation of the Department files, did you
15 then go back and request additional information
16 from Clear Springs?

17 A. In all instances, the first response to
18 the delivery call was to request information from
19 the right holder making the delivery call. So I
20 don't know at what point -- did we go back at is
21 later point in time and ask for more information?
22 The request for information was ongoing.

23 And, you know, any Department staff,
24 senior right holder, Clear Springs, or ground
25 water folks affected by the order, they were all

1 Q. And do the Conjunctive Management Rules
2 specifically provide the issuance of an order
3 before water rights are administered under its
4 provisions?

5 A. I think the correct answer there is,
6 no, they don't require that it be done, but they
7 don't preclude that it be done. And so in this
8 particular case, with the string -- string --
9 with the sequence of delivery calls that had been
10 made, you know, I wasn't precluded from the
11 Conjunctive Management Rules for issuing the
12 instructions in the form of an order. And that's
13 what I chose as providing the most complete
14 possible due process for all involved.

15 MR. STEENSON: Okay. Thank you, Karl.

16 MR. SIMPSON: I'm next.

17 EXAMINATION

18 QUESTIONS BY MR. SIMPSON:

19 Q. Karl, almost good afternoon. I'm John
20 Simpson, again, for the record, representing
21 Clear Springs Foods.

22 Karl, with respect to the
23 investigations that you undertook once the
24 delivery calls were made, and you've recited this
25 morning and then yesterday, the documents you

1 free to give us additional information at any
2 time that would be pertinent. And, in fact, if
3 that information was supplied and warranted
4 amending the order, we would have amended the
5 order.

6 Q. But to the best of your knowledge, once
7 the initial disclosure of information, or before
8 the disclosure of information by Clear Springs
9 was made by the Department, the Department did
10 not then go back and seek additional information,
11 or subsequent to the initial order, amend the
12 order?

13 A. We didn't amend the order based upon
14 any information that Clear Springs would have
15 provided subsequently. But, again, the initial
16 request for information was ongoing in my view,
17 which made any subsequent requests unnecessary.

18 Q. Do you recall yesterday the testimony
19 you gave regarding the model cells, and the more
20 information and the more results you look across
21 the number of cells, instead of looking at one
22 cell, the more accurate the estimation within a
23 particular subreach? Do you recall that
24 testimony?

25 A. Yes. I don't know that you completely

1 accurately re-characterized it.
 2 Q. Generally.
 3 A. But I remember the testimony.
 4 Q. The general testimony?
 5 A. Yes. Uh-huh.
 6 Q. All right. And is that because in a
 7 particular cell, that, obviously, the data points
 8 that you have may be limited, so in terms of
 9 looking at more than one cell across a reach, it
 10 may give you a better estimation?
 11 A. A better estimation of what?
 12 Q. Of the results from a model run.
 13 A. Well, the results of a model run are
 14 generally better when they are across a sequence
 15 of cells, that's correct, rather than from an
 16 individual cell. That is correct.
 17 Q. And is that in part, because there are
 18 more data points to review to look at in terms of
 19 that model run?
 20 A. Well, I suppose in part, but that's not
 21 the primary reason. The primary reason is
 22 because of the basic assumption where we're
 23 representing a nonhomogenous material within a
 24 cell, essentially, a homogenous material within
 25 that cell.

1 that's true. And there are other places, you
 2 could have a cell where there might be two
 3 observation points. I don't know.
 4 Q. But the distribution of well data and
 5 measuring points from well data, and geological
 6 information from wells likely was greater in
 7 cells abutting the Snake River than it was in the
 8 middle of the aquifer; wouldn't that be true?
 9 A. I don't know that I would agree with
 10 that in terms of the "abutting" thing. I mean,
 11 there was more well information, meaning ground
 12 water level information, in groupings of cells
 13 where there was intense ground water irrigation.
 14 And where there was no ground water
 15 irrigation, which exists in large parts of
 16 the -- across large parts of the aquifer system,
 17 there would have been few observation points.
 18 But they wouldn't -- those cells -- the groupings
 19 of cells that would have the largest number of
 20 observation points, wouldn't have necessarily had
 21 to abut and deliver for ground water levels.
 22 Now, for spring discharge, and you only
 23 have spring discharge where there are springs
 24 that discharge, and that could only exist in the
 25 cells in the spring reaches.

1 And so that representation is better
 2 across a range of cells, rather than in an
 3 individual cell basis. In a particular cell, you
 4 may or may not have an observation point. It's
 5 likely you would, but you may not have.
 6 Q. For example, in those cells along the
 7 river, the likelihood is that there were more
 8 data points than there were in cells that were in
 9 place in the middle of the aquifer, for example;
 10 wouldn't that be true?
 11 A. Not necessarily. You know, an example,
 12 you only have a discrete number of stream gaging
 13 stations from which the reach gains were
 14 computed. And an individual cell in the river
 15 may or may not have the stream gaging station.
 16 Q. But a cell, which contained the Canyon
 17 wall and back into the aquifer, for example,
 18 likely would have more data points if you are
 19 looking at data points being ground water wells
 20 and the observations there, geologically and
 21 water flow data, than a data point -- or excuse
 22 me -- the cell in the middle of the aquifer where
 23 you may have only one piece of well data?
 24 A. Well, there are places in the middle of
 25 the aquifer where there is no well data. I mean,

1 Q. Do you recall your testimony yesterday
 2 when you were asked a question regarding the
 3 source of water to satisfy the Swan Falls
 4 minimums of 3,900 and 5,600?
 5 A. I don't recall the question about the
 6 source. I recall the discussion about the Swan
 7 Falls agreement and the 3,900 and 5,600.
 8 Q. Well, what would be the sources of
 9 water to satisfy the Swan Falls minimums?
 10 A. Okay. I guess we did talk about
 11 source, as I recall. It would be spring
 12 discharge, primarily, with some added component
 13 from return flows downstream of the springs.
 14 Q. And in addition to those two sources
 15 you identified, would flows that pass Milner also
 16 be a component of water to satisfy 3,900 or
 17 5,600?
 18 A. In some cases, yes. In other cases,
 19 no.
 20 Q. Explain that, please.
 21 A. Well, the largest flows -- well, I
 22 shouldn't even put it that way.
 23 During the irrigation season, the
 24 largest flow is past Milner. Presently, I
 25 believe, are derived from flow augmentation

1 rentals by the Bureau of Reclamation, where they
2 are renting storage space -- or not renting
3 space -- but they are renting storage water to be
4 released past Milner for endangered species
5 issues downstream.

6 Our interpretation, or at least my
7 interpretation of the Swan Falls Agreement, would
8 require that those flows for that purpose,
9 because they are used for hydropower generation
10 within the state of Idaho, be added to the Swan
11 Falls minimum. So in that case, they would not
12 go towards meeting the Swan Falls minimum.

13 But in other cases, where the rentals
14 are not made for the purpose of hydropower
15 production wouldn't receive any below Milner that
16 would fit -- that would meet that category. I
17 guess there is the bypass flows, the Firth bypass
18 flows at Milner. Those would go -- in my view,
19 would go towards meeting the Swan Falls minimums
20 as a category that would. And I have already
21 given you the category that would not.

22 Q. Any natural flow that would be
23 appearing in the river below Milner would be
24 counted towards the Swan Falls minimums?

25 A. No, I wouldn't say that, because here

1 that the method that we're currently -- "we," the
2 USGS is currently applying to determine these
3 cumulative spring discharges is either the same,
4 or at least compatible with the methods that were
5 employed earlier for these 4,200 cubic feet per
6 second.

7 And as I recall, essentially, the
8 method consists of discrete measurements at a
9 number of springs, but not all springs. And then
10 a weighting factor is applied to the measured
11 springs to calculate an estimated cumulative
12 discharge.

13 I mean, it's not done just at one
14 springs. You have a whole series of springs, a
15 whole series of weighted factors. And the
16 combination of measured discharge and weighting
17 factors at all the measured springs results in
18 this calculation.

19 For various reasons, the springs that
20 are used as the discrete points of measurement
21 have changed with time, but so have the weighting
22 factors. But as I recall, the conclusion that
23 Bill came to was that the methodology was
24 consistent and compatible.

25 Q. But did Bill ever go back and actually

1 again, you have the Bureau of Reclamation renting
2 natural flow derived from the nondiversion of
3 Bell Rapids. And that amount that they rent is
4 added to the Swan Falls minimums.

5 Q. Okay. On Exhibit 61, which is the
6 Clear Springs order. Karl, looking back at
7 Attachment A, would you refer to extensively, and
8 I believe Attachment A is the same attachment for
9 either the Blue Lakes order or the Clear Springs
10 order, and we'll call it the Snake River Farms at
11 this point?

12 A. Correct.

13 Q. And that, again, is a graphical
14 depiction of the annual spring discharge in the
15 Snake River and Thousand Springs area.

16 A. Correct.

17 Q. Yesterday, the questions in your
18 testimony regarding the flows going from
19 approximately 4,200 cfs up to about 6,800 cfs.
20 With respect to that 4,200 cfs number that's
21 identified in this graph, did you undertake any
22 independent analysis to verify that number?

23 A. I, myself, did not perform any such
24 analysis. But on several occasions, I asked Bill
25 Ondrechen at the time to go back and make sure

1 verify the basis for the 4,200 cfs number, or the
2 accuracy of that number itself?

3 A. I believe he recalculated the number
4 and got -- you know, was very close. His
5 recalculation of it was very close to it.

6 Q. But he used the same methodology, and
7 the same assumptions that were present for the
8 individuals who originally made those?

9 A. As best as we could, yes.

10 Q. Right. But did it independently
11 determine whether that methodology was or was not
12 accurate based upon all the data that might have
13 been available at the time, including but not
14 limited to, irrigation deliveries on the North
15 Side system, or on the North Side of the spring
16 reaches?

17 A. I won't say that he didn't
18 independently verify the adequacy of it. But
19 that wasn't the focus. The focus -- I mean, it
20 was a USGS technique methodology. We accepted it
21 as being valid. And our question was more to the
22 fact, has it been consistently applied through
23 time, and could we, in fact, go back and
24 reconstruct this relationship? And the answer
25 was, essentially, yes, we could go back and

1 reconstruct it. Not maybe exactly, but
 2 essentially, we could. It was reconstructible.
 3 Q. Do you recall in your testimony
 4 yesterday you were asked a series of questions
 5 regarding the winter water savings agreements,
 6 and the water associated with winter water
 7 savings?
 8 A. Yes.
 9 Q. And generally, is it your understanding
 10 that that winter water savings water was water
 11 that various canals above Milner diverted year
 12 round into their canal systems for stock water
 13 employed by water purposes?
 14 A. Yes.
 15 Q. And would it also be true that their
 16 irrigation deliveries during the irrigation
 17 season exceeded what water they continued to
 18 divert during the non-irrigation for that stock
 19 water employed by water purposes?
 20 A. Certainly.
 21 Q. And so likewise, those winter water
 22 diversions would have simply been diversions into
 23 the canal systems and not application onto the
 24 land?
 25 A. That's generally my understanding. But

1 Swan Falls is an issue that's been raised to the
 2 extent to the delivery call in Thousand Springs
 3 reach.
 4 MR. RASSIER: Okay. Well, I would like
 5 you to keep that in mind, it's 130.
 6 MR. SIMPSON: I want to get done, too.
 7 Q. (BY MR. SIMPSON) With respect to that
 8 year-round diversion, generally speaking, if a
 9 canal system was open year round, and water was
 10 being diverted year round, the losses associated
 11 with diversions into the canal system would take
 12 that into account; would they not?
 13 That is, the canals wouldn't, as they
 14 are done now, have a charging period at the
 15 beginning of the irrigation season where losses
 16 are greater than they are during normal delivery
 17 season?
 18 A. That's correct. However, I would
 19 estimate that the total losses over a year, over
 20 the entire year from a canal like North Side,
 21 would be greater when the canal was used year
 22 round, than it is presently, when it's only used,
 23 say, six months. Even though the initial losses
 24 during charging prior to six months of the usage
 25 would be greater than the losses later in time.

1 I suspect -- I don't have any proof -- but, I
 2 mean, I would suspect that there may have been
 3 some early -- I'll call it early season
 4 irrigation prior to the authorized season of use.
 5 And likewise, there probably was some late season
 6 irrigation occurring after the authorized season
 7 of use.
 8 Q. But generally speaking, that water that
 9 was diverted for winter water would have remained
 10 in the canal system, but for some early or late
 11 irrigation needs?
 12 A. I believe that's the case, yes.
 13 MR. RASSIER: Now, John, this
 14 deposition was noticed up for 130 calls; right?
 15 And it seems like some of the areas you are going
 16 into may not be relevant to the 130 calls.
 17 MR. SIMPSON: Well, Phil, Mr. Budge did
 18 ask questions about this. And primarily, on this
 19 subject, at least it's related to seepage into
 20 the aquifer, and associated changes in aquifer
 21 levels with respect to the Thousand Springs
 22 reach.
 23 Yesterday, in addition, Mr. Budge did
 24 ask questions about Swan Falls, and sources of
 25 water to meet the Swan Falls minimums. And that

1 But if you look at the total losses
 2 over the entire year, I would suspect that they
 3 were larger when the canals were used year round
 4 than they are now in total.
 5 Q. And any net increase in loss as a
 6 result of year-round diversions as compared to
 7 how practices are presently, wouldn't you agree,
 8 that you would have to subtract out that
 9 additional loss that occurs during the charging
 10 period for irrigation presently; would you not?
 11 A. Subtract it from what?
 12 Q. Well, the net, the net change in
 13 losses?
 14 A. I don't know that you would subtract it
 15 out. I mean, the additional losses that occur
 16 during the charging of the canal, I would say,
 17 would count towards what I have characterized as
 18 the total losses during the year.
 19 Q. Okay. And the loss associated with
 20 charging in today's practices, was not present
 21 during the period when there was winter water
 22 savings diversions; is that not true?
 23 A. I would say, that's generally true.
 24 But what I don't know, John, is what the effect
 25 of losses would be, because of the ice jams that

1 I've heard Ted Diehl talk about. You know, you
2 hear stories about people going out with dynamite
3 to blow the ice jams up. I don't know what that
4 does to the losses in the canal.

5 If the canal below an ice jamb went dry
6 for some period of time because of an ice jamb,
7 presumably there would be some recharging,
8 perhaps, of that de-watered segment. But whether
9 that would be more or less than if the ice jamb
10 hadn't occurred, or how it compares to today, we
11 don't -- I don't have that.

12 Q. It's difficult to quantify?

13 A. Yeah, it's difficult to quantify, I
14 believe.

15 Q. Would it also be fair to say that, with
16 the winter water savings agreement that did
17 occur, that entities who receive the benefit of
18 those winter water savings agreement procured a
19 better storage supply?

20 A. The entities that participated in the
21 water savings agreements, did they secure a
22 better storage supply? Is that essentially the
23 question?

24 Q. Yes.

25 A. I don't know what you mean by

1 A. That's certainly a reasonable
2 conclusion.

3 Q. Which would have resulted in additional
4 irrigation losses associated with the delivery of
5 that water?

6 A. I don't know that. And here is why:
7 You know, I know that North Side charges a fixed
8 amount of canal loss per share delivered. But
9 physically, the losses associated with between
10 running the canal at 95 percent, or let's say, 90
11 percent capacity versus 100 percent capacity, I
12 don't know that the losses associated with that
13 last ten percent are proportional to the losses
14 associated with the first 90 percent.

15 So it depends upon how this additional
16 storage water is delivered. Is it delivered on
17 top of the natural flow? I mean, North Side is
18 predominately storage, of course.

19 But how much additional storage is
20 delivered by North Side and when, I think, is
21 what you would have to look at. Because if it
22 was just put on top of what was already there
23 during the same time, it may not have a
24 proportionately greater amount of loss.

25 On the other hand, if it extended the

1 better. But certainly their storage supply was
2 firmer because of the diversion into storage of
3 water that otherwise would have been used for
4 year-round stock water and domestic uses.

5 Q. And additional water supply? In the
6 case of North Side, did they not procure a supply
7 in Palisades as a result of the winter water
8 savings?

9 A. Did they incur an additional water
10 supply, because they agreed to the winter water
11 savings? I would say, that is true, because they
12 wouldn't have gotten the contract in Palisades
13 without it.

14 Q. Right. So, for example, if North Side
15 Canal Company, assuming they, as a result of the
16 Palisades contracts, obtained 115,000 acre-feet
17 of additional storage in Palisades with a winter
18 water savings priority. That made available to
19 them additional storage supplies that they did
20 not have then prior to Palisades?

21 A. I agree.

22 Q. So that in most cases, it would have
23 provided them additional water to be delivered in
24 the irrigation season through their canal
25 systems; would it not have?

1 season during which the canal is operated, that
2 could increase the overall losses.

3 Q. Either way, it would have increased the
4 losses? It's just a matter of how much?

5 A. Correct.

6 Q. Because every acre foot diverted there
7 has some loss associated with it?

8 A. I agree.

9 Q. Okay. With respect to surface water
10 administration, how are the calibrated river
11 gages utilized?

12 A. Well, I suppose they are utilized in a
13 couple of different ways. I mean, they can be
14 utilized to calculate reach gains, which are then
15 distributed as natural flow. They can also be
16 utilized to track how much of the flow is natural
17 flow versus storage releases. And then thirdly,
18 they are used -- well, it's sort of related to
19 the natural flow. I mean, that is what is
20 distributed by priority to the right holders. So
21 I've already addressed that.

22 They are also used to do a mass balance
23 from the beginning of the river down to Milner
24 for the purpose of accounting for water use. So
25 natural flow distribution, storage, and

1 accounting would be the three primary uses of
2 those gages.

3 Q. So those gages are basically used daily
4 in administration of water?

5 A. Essentially. Although, you know, they
6 do average -- they do average the gage readings
7 over time, because some of the daily records are
8 suspect. And so to try to, through a process of
9 averaging to try to reduce the error, I wouldn't
10 say that necessarily daily polls are always used.
11 Sometimes it's an average over a three-day, or a
12 seven-day, or whatever the average would be.

13 Q. And in the use of those calibrated
14 gages on surface water administration, as a part
15 of that administration is a clip or a ten percent
16 accuracy calculation factored into that
17 administration?

18 A. Not in the context that you are asking.
19 I'm going to answer it a couple of different
20 ways. I'll bifurcate the answer; okay?

21 Q. Sure.

22 A. But along the main Simmons Snake, for
23 example, unless there is a systemic gage error,
24 which would cause the uncertainty to essentially
25 be biased one way or the other, the assumption is

1 situation where we would say, the 10 cfs was not
2 certain. And therefore, the call was futile and
3 we allowed the juniors to divert 100 cfs.

4 So, essentially, we've clipped the
5 junior use in this hypothetical to ten percent.
6 But, in fact, that is a procedure that we do
7 employ, at least in the Big Lost River in dealing
8 with futile calls, which purely was essentially a
9 surface water determination.

10 Q. And within Water District 01, once that
11 water is in the river, once -- whether the source
12 is from snow pack melt, or from reach gains,
13 we'll say, above Blackfoot, once that water is in
14 the river, it's administered by the gage reads --

15 A. It is.

16 Q. -- to be delivered to the surface water
17 user --

18 A. It is.

19 Q. -- is it not?

20 A. It is.

21 Q. So there is no reduction or uncertainty
22 placed upon that delivery to a surface water
23 user?

24 A. There hasn't been, but I would not be
25 surprised to see the issue raised someday when a

1 made that the plus ten percent and the minus ten
2 percent on errors, if you will, cancel each
3 other.

4 Now, having said that, that isn't what
5 we did using the ground water model, nor is it
6 what we do when we use surface water gaging, or
7 surface water measurements in determining futile
8 cost.

9 So, for example, in the Big Lost River,
10 generally did we have to make an annual
11 determination of at what point does the senior
12 call downstream become futile against the juniors
13 upstream? And at what point do we allow the
14 juniors upstream to divert out of priority? It's
15 a fact specific determination that's made on
16 typically a year-by-year basis.

17 But it's somewhat analogous to what we
18 did with the ground water model. In that if the
19 juniors at the upstream end -- and I'll just use
20 100 cfs, that's a hypothetical illustration.

21 If the juniors at the upstream end
22 could divert 100 cfs, but if they were curtailed,
23 10 cfs might reach the downstream senior. How
24 certain is that 10 cfs? And we have made
25 determinations in that instance in the similar

1 junior faces curtailment.

2 You know, again, I'll go back to
3 not -- yesterday's discussion on this. But in
4 Water District 01, since you've used that as an
5 example, you've got something that's available
6 that's not available to the spring users. It's
7 not available to the ground water folks,
8 generally, in that storage. And storage can
9 cover a multitude of errors.

10 Q. Yesterday you discussed the application
11 of a ten percent clip that is basically the line
12 by which if someone was outside of that ten
13 percent line, they were not subject to
14 administration?

15 A. For a particular call. But you know,
16 sometimes some of those people that were outside
17 the line for one call were not outside the line
18 for another.

19 Q. I agree that there could be overlapping
20 lines or intersecting lines with respect to that
21 ten percent line.

22 Would you agree, though, that if you
23 added up those rights that were outside of a line
24 for a particular call, it could amount to a
25 substantial amount of depletions being caused

1 upon the source that is the aquifer?
 2 A. I haven't done the calculations, so I
 3 don't know. But remember that at least in terms
 4 of administering a delivery call, the issue isn't
 5 depletions to the aquifer. The issue is
 6 depletions to the hydraulically connected reach
 7 where the injury has occurred.

8 Q. But to the aquifer, there may be some
 9 substantial depletions to the aquifer as a result
 10 of the junior ground water pumping that's
 11 occurring outside of that ten percent clip line?

12 A. I don't know. We never -- I don't
 13 recall if we ever made the determination.

14 Q. You just never looked to see the
 15 number --

16 A. Right.

17 Q. -- or the volume of rights of the
 18 depletions occurring upon rights that were
 19 outside of those lines?

20 A. Not directly. Although, you know, I
 21 believe that there were some model simulations
 22 done early on with the clip and without the clip.
 23 But the purpose wasn't to see how much depletion
 24 of the aquifer was being excluded with the clip.
 25 The purpose was to see what kind of difference

1 be otherwise subject to curtailment.

2 MS. McHUGH: There is --

3 THE WITNESS: And I'm having a hard
 4 time finding it.

5 MS. McHUGH: Is it perhaps around 96 of
 6 the Clear Springs order?

7 THE WITNESS: Yes, Candice is correct.
 8 In Finding 96, it's very specific. "Based on the
 9 Department's water rights database and
 10 simulations using Version 1.1 of the Department's
 11 water model for the ESPA," et cetera, "the
 12 diversion and consumptive use of ground water
 13 under water rights having priority dates later
 14 than the priority dates for Water Right Nos.
 15 36-7083 and 36-7568 in Water District 120, and
 16 which have steady state conditions reduce spring
 17 discharge in the Devil's Washbowl to Buhl Gage
 18 spring reach by more than ten percent of the
 19 amount of depletion."

20 So the clip was applied to the
 21 simulated curtailment in 120.

22 Q. So, in essence, Water District 120
 23 ground water rights were found to be outside of
 24 the clip line?

25 A. Correct.

1 did it make in terms of the
 2 hydraulically-connected reach where injury is
 3 occurring.

4 Q. Okay. Depletion to the
 5 hydraulically-connected reach?

6 A. Yes.

7 Q. And with respect to the reach that is
 8 subject to the delivery calls that you've been
 9 testifying to here, were the ground water rights
 10 associated with Water District 120 within or
 11 outside the ten percent line?

12 A. I'll have to look. I don't remember
 13 offhand. Let me look at the order, the Blue
 14 Lakes order. I don't know, John, can you help me
 15 with finding where that's dealt with?

16 Q. Well, the closest I could probably
 17 come, Karl, would be at the bottom of page 38 of
 18 the Clear Springs order. It cites on page 38, it
 19 says, "It is further ordered that no additional
 20 curtailment of a diversion and use of ground
 21 water under water rights within Water District
 22 130."

23 So your order did not describe, at
 24 least in that paragraph, that any water rights in
 25 120, 110, or 100, or other water districts would

1 Q. Would you acknowledge that the ground
 2 water rights within Water District 120 represent
 3 a substantial depletion to the aquifer?

4 A. To the aquifer, but not necessarily to
 5 the hydraulically-connected spring reach and the
 6 spring reaches in the Thousand Springs area. The
 7 depletions from ground water diversion and use in
 8 120 occur mainly to the hydraulically-connected
 9 reaches of the Snake River above Blackfoot -- or
 10 not Blackfoot, but above, essentially, Neeley.

11 Q. Yesterday, do you recall your testimony
 12 regarding your justification under the
 13 Conjunctive Management Rules 40.01.A regarding
 14 phased-in curtailment?

15 A. Yes.

16 Q. And would it be accurate to state that
 17 in your view, the phased-in curtailment in this
 18 case was justified given the requirement of
 19 providing notice to water rights and water right
 20 holders of the potential curtailment of their
 21 rights if mitigation was not provided?

22 A. I may not have understood the question,
 23 but I'll try to answer it the way I understood
 24 it.

25 The provision for phased-in curtailment

1 in Rule 40 -- whatever the number is -- is to
2 provide an orderly transition on an economic
3 basis. I never viewed it as being used to
4 provide notice of potential curtailment. I
5 didn't view it that way. The notice for
6 potential curtailment was to be provided, and I
7 think was provided, directly by the watermaster
8 through letters that were sent to individual
9 right holders.

10 Q. So it was purely an economic issue with
11 respect to those rights that might be subject to
12 curtailment if mitigation was provided?

13 A. That's my view. And, of course, it's
14 provision rules. It was not a provision that I
15 used absent some basis in rule. It was
16 discretionary. And even though it was
17 discretionary, and I could have chosen not to
18 phase-in curtailment, I chose to phase-in
19 curtailment initially with the plan had I been
20 allowed to see this through of working towards
21 administration without the phasing.

22 But in the initial application of this,
23 I thought it was appropriate given it was
24 provided for in the rule. But we were -- from my
25 perspective, had I been here, we were clearly

1 director's responsibility to just simply go out
2 and begin curtailing rights, because the senior
3 might not have sufficient water for his needs. I
4 think he has to call for it.

5 Q. Certainly. But at least,
6 initially -- but once you make an injury
7 determination, do you believe you have the
8 authority not to remedy that fully intended
9 injury?

10 A. Well, when you look at the entirety of
11 the body of law, including the rules, that
12 authority was conferred through the rules and
13 through their confirmation of the legislature.

14 So I think I could answer at this time
15 the opposite way saying that, given that the
16 rules were confirmed by the legislature, didn't I
17 have a responsibility to consider phasing in
18 curtailment, even recognizing that there could be
19 some incremental additional injury incurred by
20 the senior?

21 Q. Incremental injury that was not being
22 remedied by your actions?

23 A. That's correct.

24 Q. But for the rule, this particular rule,
25 would it be your view that you have the duty to

1 headed towards a more -- I'll call it perfunctory
2 system of administration more similar to what
3 occurs currently in surface water systems only.

4 Q. Would you agree that once you found
5 material injury, and then chose to phase-in
6 curtailment to alleviate that injury, the senior
7 was still incurring injury during that phased-in
8 period?

9 A. Potentially, yes. On the assumption
10 that the shortages that the senior was
11 experiencing were going to continue. The senior
12 was incurring an incremental amount of injury,
13 because the curtailment of mitigation was
14 phased-in, not applied immediately. And I agree
15 there was some incremental amount of injury that
16 occurred.

17 Q. Generally, do you understand that once
18 you find injury that it's your job to deliver
19 water to alleviate that injury to protect the
20 senior water right holder?

21 A. I believe the senior has to make the
22 call, has to make the delivery call. And, again,
23 that has become pretty perfunctory in long
24 administered basins like the Boise River and the
25 Snake River. So I don't believe that it's the

1 remedy such an injury once you make that finding?

2 A. Again, I'll answer it differently than
3 you asked it. But for this rule, did I think the
4 authority existed to phase-in curtailment, and
5 the answer is, no.

6 Q. In your implementation of this rule
7 consistent with your duties to deliver water by
8 priority, did you give consideration to the
9 potential that there could be phased-in
10 curtailment along with other measures that would
11 result in the senior being fully mitigated?

12 A. I don't know what those other measures
13 would be. You know, the Department's authority
14 extends only to the distribution of water, or
15 approval, administration, whatever you want to
16 call it, of mitigation plans that provide like
17 amounts of water in kind, in place, in time.

18 So I don't know what other things could
19 have been done. I mean, can a senior accept
20 out-of-kind mitigation for injury? Yes. Can the
21 Department require out-of-kind mitigation for
22 injury? I don't think so. Can the Department
23 administer out-of-kind mitigation if it's
24 accepted by the senior? Yes.

25 So back to the phased-in curtailment.

1 If I believe that the person in the position that
2 I was in can only deal with water, and you are
3 phasing in mitigation, I mean, I don't know how
4 you can compensate with water for water that
5 isn't being provided.

6 Q. So other types of mitigation were not
7 contemplated by you when you applied this rule?

8 A. I didn't find any authority to require
9 other kinds of mitigation.

10 Q. With respect to the data that was
11 provided to you, and obviously, those that are
12 described in the Clear Springs order, and the
13 attachments that you attach to that order
14 regarding water flows, does that data give you
15 any indication as to whether a natural event
16 would likely occur in the future, which would
17 essentially provide a full water supply to the
18 Snake River Farms facility or the Crystal Springs
19 facility?

20 A. It doesn't give any indication that a
21 natural event will occur, nor does it give any
22 indication that a natural event wouldn't occur.
23 But it would have to be a pretty extraordinary
24 event to completely make-up the shortfall in
25 available springs discharge.

1 '98 through 2000, where it appears that this
2 spring discharge stabilized. Before then, again,
3 in 2001, additional decline is being evident.

4 And given, you know, just as the
5 effects of ground water depletions that are
6 further removed from the spring area, just as
7 those take time to manifest themselves, so would
8 incidental recharge associated with an abundant
9 water supply take time.

10 And so I think what you are seeing -- I
11 mean, this is qualitative assessment, I think you
12 can -- one reasonable conclusion would be that
13 the stabilization you saw, 1998 through 2000, may
14 have been the result of the abundant water year
15 in 1997.

16 Q. So from a qualitative standpoint, if we
17 had in 2008 another year like 1997, what we might
18 expect would be another stabilizing event to
19 occur?

20 A. Mm-hmm.

21 Q. But it would not lead one to the
22 conclusion that the flows available for Snake
23 River Farms would meet their decreed water
24 right --

25 A. Correct.

1 Q. Well, let's just use on the Snake River
2 Farms, Attachment C to your order on Exhibit 61.

3 A. (Witness complying.) All right.

4 Q. Just looking at that graph of the data
5 that you produced as a part of your order, would
6 it be fair to recognize that the 1997, '98 water
7 supply year was a fairly good year?

8 A. Sure, '97 was a pretty good year.

9 Q. And in looking at this graph, based
10 upon that water supply year 1997, which I'll
11 represent to you was a substantially
12 above-average water year.

13 A. Yes.

14 Q. Can you identify in this graph the
15 response in these spring flows to that good water
16 year?

17 A. Oh, only in a qualitative sense, I
18 suppose. But if you look at what was happening
19 up until 1997, generally the peak discharge was
20 progressively getting lower and lower for the
21 most part. And as was -- there are some
22 exceptions, for the most part. As was -- there
23 is some exceptions, but for the most part, as was
24 the low point in the spring discharge. But then
25 there is a period of time after 1997, say, from

1 Q. -- of approximately 117 cfs?

2 A. That's correct.

3 Q. So hence it would be difficult to
4 envision a water year, which would do something
5 more than simply stabilize the flows that are
6 available to them?

7 A. That's correct. That's why the order
8 for Clear Springs and Blue Lakes both was
9 structured to require essentially ongoing
10 curtailment or mitigation from here on out.

11 I mean, there was a provision that,
12 yes, hypothetically things could change. But if
13 they don't, you are looking at ongoing
14 curtailment for mitigation, period.

15 Q. And based upon the data that we just
16 looked at, it would, again, be difficult to
17 envision what the change that would occur that
18 would result in the delivery of their water but
19 for curtailment of junior?

20 A. Agreed.

21 Q. Again, referring to that exhibit, would
22 the variability of the peaks and valleys be as
23 great if there was no ground water pumping?

24 A. I think I would have to say, I don't
25 know. Because we don't -- you know, the same

1 problems that we discussed or debated during
2 questioning from Mr. Steenson, the information
3 simply doesn't exist to quantify the variability
4 prior -- at least I'm not aware that it
5 exists -- to quantify the variability prior to a
6 substantial amount of ground water being
7 developed.

8 Q. But we know that ground water pumping
9 does impact the flows available to Snake River
10 Farms, for example?

11 A. It does.

12 Q. Karl, when you first came to the
13 Department in the mid 1990s, and yesterday you
14 testified regarding your commencing a review of
15 the Conjunctive Management Rules. Did you rely
16 upon anyone within the Department to provide you
17 insight on how those rules were not implemented,
18 but drafted and adopted in the sense of what the
19 Department intended or would intend if
20 implementing those rules?

21 A. Yes, I had discussions along those
22 lines with Mr. Rassier and Norm Young at the
23 time.

24 Q. So those would have been, essentially,
25 the individuals that you would have relied upon

1 Q. But from that standpoint, those
2 Department employees would have been the ones
3 with the most understanding or the greatest
4 understanding or experience regarding what Mr.
5 Higginson intended?

6 A. I believe so.

7 Q. Yesterday, do you recall your testimony
8 regarding the issue of reasonable diversions, and
9 that testimony regarding the investigation by the
10 Department at your direction with respect to the
11 Crystal Springs facility and the Snake River
12 Farms facility?

13 A. Yes.

14 Q. And you asked or requested that Brian
15 Patton and Cindy Yenter go out and physically
16 investigate those diversion structures and the
17 surrounding facilities associated with Crystal
18 Springs and Snake River?

19 A. Correct. And as well as to identify
20 any alternatives that they saw that could provide
21 additional water to the facility.

22 Q. And that was part of the investigation
23 the Department did, along with your investigation
24 regarding the feasibility of horizontal or
25 vertical wells in the geological structures

1 of gaining an understanding of how the rules
2 would be implemented?

3 A. No, because neither of those
4 individuals had ever been confronted with
5 actually implementing the rules.

6 Q. But they were involved in the
7 rule-making process, and the drafting of the
8 rules, and the language that was -- the language
9 that was inserted into the rules in terms of the
10 intentions regarding that wording?

11 A. Yeah, I don't know. Because when I
12 asked the question, I remember this -- asking,
13 because I asked the question to Norm Young, to
14 John Rosholt, and to Jeff Fereday. But in
15 particular Norm Young, I was interested in, you
16 know, what kind of involvement did he have and
17 others in the Department in writing the rules.
18 And what he told me is that my predecessor, Keith
19 Higginson, largely wrote the rules himself.

20 Q. Without any input from Mr. Rassier and
21 Mr. Young?

22 A. With limited input. I wasn't here, so
23 I don't know the extent of the input that was
24 provided. All I know is that from Norm's
25 description, it was limited.

1 associated with the areas around those
2 facilities?

3 A. No. The consideration of what would
4 happen with horizontal wells was made, I'll say,
5 several years -- because I don't recall the exact
6 number -- but several years in advance of the
7 delivery calls being made.

8 In fact, that consideration was done
9 during the time period under which we were
10 attempting to negotiate resolution under the
11 interim stipulated agreement, that's the time
12 frame that we looked at the horizontal wells.

13 Q. In the 2001, 2003 period?

14 A. Yes.

15 Q. That investigation, that background
16 information was information you considered during
17 your drafting of these orders?

18 A. Well, I considered it to the point that
19 I didn't view it to be a viable alternative.

20 Q. But did factor into your determination
21 of whether or not the diversions were
22 reasonable --

23 A. Yes.

24 Q. -- and what actions you would or
25 wouldn't order?

1 A. Yes.
 2 Q. With respect to Snake River Farms, I
 3 believe Ms. Yenter or Mr. Patton found that the
 4 diversion box associated with Snake River Farms
 5 facility was in some what disrepair. Do you
 6 recall that finding?
 7 A. I do.
 8 Q. And do you also recall that Clear
 9 Springs fixed that diversion box?
 10 A. I do, and they fixed it rather quickly,
 11 as I recall.
 12 Q. To the satisfaction of the Department;
 13 correct?
 14 A. Correct.
 15 Q. With respect to Crystal Springs, the
 16 investigation by Mr. Patton and Ms. Yenter
 17 identified that there was the potential for
 18 Crystal Springs to extend their conveyance and
 19 delivery system; is that correct?
 20 A. That's correct.
 21 Q. And by identifying that issue in the
 22 order, did you contemplate that --
 23 Well, what did you contemplate in terms
 24 of their subsequent actions to that order?
 25 A. Whose subsequent actions; Clear

1 that you provided, would trespass be a limitation
 2 to accessibility to water?
 3 A. Yeah, I suppose it could be. But there
 4 are also other approaches under the law,
 5 condemnation-type approaches that perhaps would
 6 be viable to resolve the trespass issue.
 7 Q. That one party would try to institute
 8 an action to condemn other property owners?
 9 A. For the purpose of delivering by
 10 constructing water delivery facilities. I think
 11 that was an option, but I don't think that was
 12 contemplated or necessary in this case, because
 13 of the fact that the land was owned by the State,
 14 and I think, access to it was grantable, if not
 15 granted, by statute.
 16 Q. Would that type of action, condemning
 17 another's property, be an action that you would
 18 contemplate in the future use, would have
 19 contemplated in future use of this provision?
 20 A. Not necessarily.
 21 Q. At another facility?
 22 A. No, because we looked -- in identifying
 23 that alternative, we looked at the case-specific
 24 facts that existed, including ownership of the
 25 land.

1 Springs?
 2 Q. Clear Springs.
 3 A. As I recall, I anticipated that Clear
 4 Springs would perform some sort of a feasibility
 5 assessment, and that they might or might not
 6 share that information with the Department. But
 7 presumably if it was feasible, that they would
 8 implement that to gain the water that they
 9 claimed they needed.
 10 Q. And in that feasibility study, did you
 11 contemplate that they would determine whether or
 12 not they could gain access to cross private
 13 property to gain access to additional flows?
 14 A. As I recall, it was not private
 15 property. It was property owned by the State of
 16 Idaho, and that there was a statutory provision
 17 for access, as I recall.
 18 Q. And if that property was subject to a
 19 lease to another entity, another party, would
 20 that preclude access?
 21 A. Not necessarily, because I don't
 22 believe that the lease would be in compliance
 23 with that statute if it was an exclusive.
 24 Q. Generally, when someone looks at the
 25 ability to access property under the condition

1 Q. In your view, when does water that
 2 seeps into the ground become subject to
 3 appropriation?
 4 A. When it's no longer in the control of
 5 the right holder that appropriated the water in
 6 the first place.
 7 Q. When it drops below the root zone?
 8 A. No, I wouldn't -- I would say, when
 9 it's no longer in their control, and that may be
 10 above or below the root zone.
 11 Q. How does water remain in one's control
 12 when it drops below the root zone?
 13 A. If it drops below the root zone, and it
 14 hasn't intermingled with the underlying ground
 15 water, it's potentially capture-able through,
 16 I'll say, a system of drains, or potentially a
 17 well. It could be -- I would say, it remains
 18 under their control, until it's commingled with
 19 the public supply, and that applies both in a
 20 ground water sense and a surface water sense, in
 21 my view.
 22 Q. Okay. So then what does "commingle"
 23 mean?
 24 A. Well, in the case of a ground water
 25 situation, if the depth to ground water is 100

1 feet, the water that's migrating towards the
2 public ground water supply, in my view, wouldn't
3 be deemed to be commingled with the public supply
4 until it reached 100 feet.

5 Q. So once it connects with or interacts
6 with the public supply?

7 A. Yes.

8 Q. Is water that is not diverted and
9 beneficially used, is it water that's wasted?

10 A. Not necessarily.

11 Q. Is there the opposite of beneficial use
12 waste in terms of a diversion?

13 A. I hadn't thought of it in those terms
14 before. Let's see. The opposite of beneficial
15 use waste? I'm going to say, not necessarily.
16 And the reason I say that is, I think you could
17 construct a situation where you could divert
18 water that would be nonuse, but it wouldn't
19 necessarily be waste.

20 Q. Operational losses --

21 A. No.

22 Q. -- for example?

23 A. No, I'm thinking of actually -- I mean,
24 it's been -- since been resolved through
25 adjustments of law in Colorado. But the issue

1 they lose 900 cfs. I'll make it extreme. And
2 they continue to deliver the 100 cfs beyond the
3 location where the significant loss occurs. I
4 think it would be wasteful for that canal to
5 continue to operate in that setting to deliver
6 100 cfs.

7 So can canal losses be wasteful? Yes.
8 Are they necessarily wasteful? No.

9 Q. With respect to the work done on the
10 model, the re-calibration of the model, and then
11 the modeling scenarios that were run, were those
12 scenarios that were run, were they done in
13 anticipation of administration?

14 A. Prepares early on. If you'll recall
15 during that time period, and this would have been
16 prior to the delivery calls being made, there
17 were some specific scenarios that were outlined
18 in collaboration with the technical advisory
19 committee that had been formed looking at
20 curtailment scenarios back to certain priorities,
21 and what would happen, what would the response in
22 the aquifer and the river be under those various
23 scenarios.

24 And so by that point in time, we were
25 beginning to look to use the model for

1 was, could -- initially a city was diverting
2 water for non-consumptive recreational use, and
3 the diversions were occurring whether there was
4 or wasn't recreational use.

5 So there is a situation where there is
6 nonuse. Was it waste? I don't think so. It was
7 perhaps an unauthorized diversion, but it wasn't
8 waste, because the water was not consumed. It
9 was returned to the source before it affected the
10 source or any subsequent junior. So, I mean, I
11 think it comes down to a fact specific basis.

12 Now, operational losses, are those
13 wastes? If they are necessary to incur to
14 deliver the water that's beneficially used for
15 irrigation, in my view, that's not waste.

16 Q. So the water that seeps into the ground
17 as a result of the conveyance and application of
18 water to beneficial use on the lands, is that
19 waste, or is that operational losses?

20 A. It's generally not waste, but
21 hypothetical, where it could be waste. Let's say
22 that you've got a canal that has a capacity of, I
23 don't know, a thousand cfs for round numbers.
24 And it crosses a fault zone or other zone that
25 has a high permeability. And of that 1,000 cfs,

1 administration purposes.

2 Q. Right.

3 A. But consistent with what I said
4 yesterday, from the very beginning of the
5 reformulation, re-calibration, at least part of
6 my intent was to develop a tool that I could use
7 for administrative purposes, not if it became
8 necessary, but when it became necessary.

9 Q. So the curtailment scenarios, and even
10 to some respect the straw man scenario, and the
11 various scenarios that were run that associate
12 with the straw man scenario, all those scenarios
13 that were done in connection with the IWRRRI group
14 in the modeling committee, were done in
15 anticipation of looking at potential
16 administrative actions that might take place?

17 A. Or management actions. It was really a
18 set of scenarios that were aimed towards the
19 administration. They were a set of scenarios
20 that were aimed towards trying to identify better
21 opportunities for management.

22 Q. Management/mitigation opportunities?

23 A. Not necessarily mitigation. You know,
24 at that point in time, there was considerable
25 discussion underway with legislators and others

1 about what the state might be able to do to avert
2 the type of crisis or conflict that we currently
3 find ourselves in.

4 Q. So with respect to the A & B scenario,
5 was that an administrative scenario that was run?

6 A. No, it was not. That scenario is, I
7 guess, a little different than the administrative
8 scenario or the management scenario. You know,
9 we knew, obviously, the ground water levels below
10 A & B were followed. We knew. There is no
11 question about that. But we didn't necessarily
12 understand why.

13 We didn't know if it was the extensive
14 use of ground water by A & B itself, or if it was
15 the use of ground water in surrounding areas.
16 And so that scenario was run as an initial step
17 in beginning that investigation and that
18 consideration.

19 Q. And so is that scenario sufficient to
20 be utilized in the context towards the next steps
21 for administration?

22 A. I don't know that I'm in a position to
23 answer that.

24 MR. RASSIER: I think this is an area
25 isn't it, John, that's going beyond what Karl was

1 below A & B were a result of A & B's pumping or
2 the result of pumping by others?

3 A. Well, it wasn't just that. That
4 certainly was a central aspect. But, I mean, we
5 were trying to better understand why ground water
6 levels below A & B were declining to the extent
7 the model would help us do that.

8 Q. Karl, in your view, does this phased-in
9 curtailment progressive mitigation satisfy the
10 requirements of mitigation in time and quantity
11 and place?

12 A. Well, that's the measure as to whether
13 it's acceptable. But it is phased-in, so it does
14 not address the incremental injury that we talked
15 about earlier. And certainly, there was
16 incremental injury that is not being mitigated
17 through phased-in mitigation.

18 Q. When you use the phrase
19 "insignificant," as it relates to insignificant
20 effects on the water available discharging into
21 certain spring reach ten percent clip, for
22 example -- what criteria did you use to define
23 "insignificant"? Was that the amount of water
24 that was available to water users within that
25 particular reach?

1 noticed up for? It's certainly beyond what Randy
2 ventured into.

3 MR. SIMPSON: Well, it's a discovery
4 deposition. It's not cross-examination of what
5 Randy went into.

6 MR. RASSIER: It's in spring calls.

7 MR. SIMPSON: It's in Water District
8 130, so I think that's --

9 MR. RASSIER: Okay.

10 THE WITNESS: I don't believe I can
11 answer that, because that was a scenario, a
12 hypothetical scenario that was constructed before
13 A & B made a delivery call. As I understand,
14 they made one. I haven't seen it, but I
15 understand that one has been made.

16 And so I don't know that I could even
17 respond whether or not that scenario is or is not
18 usable for administration purposes when it was
19 developed and run prior to the delivery call
20 being made, because it was not done with the
21 intent of addressing a delivery call. It was
22 done with the intent of better understanding of
23 what was happening.

24 Q. (BY MR. SIMPSON) To understand whether
25 or not A & B, the declining ground water levels

1 A. It was. And I can't recall. I would
2 have to look back at the scenarios. But it
3 strikes me that in some of these instances, you
4 know, the model might predict an increased reach
5 gain of one-tenth of a cfs in a spring reach
6 that's being shared by a number of very large
7 spring diversions.

8 I would question -- I mean, the
9 one-tenth of a cfs may be real, but I would
10 question whether it would be significant in that
11 setting. Now, obviously, if your water right is
12 to use .02 cfs, .1 cfs would be significant.

13 Q. If as a result of inputs into the ESPA
14 water in reaches of the Snake River below Milner
15 became available in excess of what was there at
16 the time under the appropriation, that that water
17 was not -- excuse me -- but the right wasn't
18 fulfilled, could a senior divert that water?

19 A. State it again for me, please.

20 Q. Okay. If, as a result of inputs into
21 the aquifer, that is tributary underflow precip,
22 recharge to the aquifer, natural or artificial
23 recharge, spring flows increased. And if the
24 flow is increased beyond perhaps what had been
25 there historically, would a water right holder

1 who had previously acquired a water right, have
2 the right to divert that water?

3 A. Up to the maximum amount authorized
4 under their water right, yes.

5 Q. Would they have preference by priority
6 over that water over a subsequent diverter or a
7 subsequent right?

8 A. Diverting from the same source, yes.

9 Q. How about diverting from a different
10 source, but a source that is hydraulically-
11 connected?

12 A. That gets more complex. And I would
13 have to say that, I don't know that there is a
14 plan answer. You know, in general, if additional
15 water comes available in the source, the existing
16 rights have the preference in accordance with
17 their priority to divert and apply that water to
18 beneficial use up to the limits of their water
19 right.

20 Q. So if that additional water was not
21 available because of a junior's diversion of that
22 water in the source or connected sources, that
23 junior should be administered; correct?

24 A. State that one again.

25 Q. So if that water is not available in

1 Department does not have the authority to go
2 behind a decree; is that a correct statement?

3 A. Correct.

4 Q. Okay. I believe that Rangen's Second
5 Amended Order has been marked as Exhibit No. 79.
6 And I wonder if you could access that.

7 A. (Witness complying.) Okay.

8 Q. And if you could turn to page 14 of
9 that second amended order, paragraph 62. I'll
10 indicate to you in that paragraph, as you can
11 see, that Rangen has Water Right No. 36-07694.
12 Would you agree that it was licensed on September
13 19th, 1985 with an authorized diversion rate as
14 26 cfs?

15 A. As far as I know, that's correct.

16 Q. Okay. And in this second amended
17 order, there is a reference in paragraph 63 that
18 based on available records, there was not water
19 available for the appropriation at the time or
20 subsequent to the date of the appropriation for
21 that particular water right.

22 Can you tell me what available records
23 that decision was based on? What you are
24 referring to in paragraph 63?

25 A. This would have been records in two

1 either the source or connected sources, and it
2 would otherwise be available to that senior,
3 should the juniors be administered?

4 A. If the senior is in the position of
5 needing the water and needing to apply it to
6 beneficial use, generally, the answer to that
7 would be, yes.

8 MR. SIMPSON: That's all the questions
9 I have. Thank you, Karl.

10 MR. MAY: Could we take a break for
11 just a moment? Would that be all right?

12 THE WITNESS: Sure.

13 (A recess was had.)

14 MR. MAY: If we could go on the record,
15 please.

16 EXAMINATION

17 QUESTIONS BY MR. MAY:

18 Q. Mr. Dreher, my name is J. Dee May for
19 the record. And I represent Rangen, Inc. We
20 have been allowed to intervene in this particular
21 action. I have just a few questions, if I might
22 ask.

23 A. Okay.

24 Q. I believe in answer to a question from
25 Mr. Budge yesterday, you had indicated that the

1 sources. The earliest records would have been in
2 the water rights file. And, again, I don't have
3 that, so I can't show you exactly what's there.
4 But that file is available, and it does have what
5 records are available from the early time
6 periods.

7 And then the second set of records is
8 similar to what we've been looking at for Blue
9 Lakes and Clear Springs, you know, that beginning
10 in 1995, I believe Rangen, along with the other
11 spring users began reporting regularly their
12 diversions of water to the Department.

13 And so I couldn't find any record from
14 any time period that there ever was that quantity
15 of water available for diversion. And, in fact,
16 did find --

17 Q. Did you find any records that it was
18 not available?

19 A. Yes.

20 Q. And what were those?

21 A. Well, it was the estimate of the
22 watermaster. That the water was -- I don't
23 recall exactly what was on his notes. I don't
24 recall exactly. But on the notes that are in the
25 water right file, there is some cryptic notation

1 that the watermaster put in there.
2 Q. And that's it? That's the only -- that
3 one time, that one note from Mr. Lemmon?

4 A. No, that note is what the license is
5 based on. It's based upon predicted spring
6 discharges that were predicted five years in
7 advance before the permit was applied for.

8 Q. Was that licensed water right later
9 decreed in the SRBA?

10 A. Yes, it was.

11 Q. If you would look, again, at paragraph
12 63, there is a sentence that indicates,
13 "Nonetheless, since the SRBA District Court
14 decreed the water right, Rangen may be entitled
15 to divert water under this water right when such
16 water is physically available. However, because
17 the water is not available to appropriate on the
18 date of the appropriation, Rangen may not be
19 entitled to have a delivery call."

20 Can you tell me why that was even
21 important if, in fact, the Department does not
22 have the authority to go behind the decree?

23 A. It probably wasn't that important in
24 terms of this particular order, but it was
25 included to identify a potential legal issue, not

1 or was it strictly your decision alone?

2 A. You know, I certainly sought, I'll say,
3 reaction to that proposed determination. But the
4 determination was mine. It was mine alone.

5 Q. Can you explain, reaction from whom;
6 anybody?

7 A. Well, I mean, I consulted with Phil.
8 And I was trying to think who -- I think Norm had
9 retired by then. He must have. Because I
10 questioned him later about why -- he signed the
11 license, Norm Young did. And I questioned him,
12 why did you sign the license? Again, from my
13 perspective, I understand your client doesn't
14 share that perspective. I didn't -- it wasn't
15 clear to me why he would sign a license based on
16 a predicted quantity of water that wasn't
17 actually measured as being available, diverted,
18 and applied to beneficial use.

19 Q. What did he say?

20 A. He had no answer. He said, I can't
21 explain.

22 Q. Was Rangen's Second Amended Order one
23 of the emergency orders that we've been talking
24 about here? Was it done on an emergency basis
25 like Blue Lakes and Clear Springs?

1 so much identify for the benefit of the
2 Department, but for the benefit of Rangen, and
3 the ground water users that may have to resolve
4 this someday.

5 And that's why it's all qualified.
6 This says, you know, Rangen may be entitled to
7 divert water under this right. I think as long
8 as the decree is in place, you do have the right
9 to divert water under the right.

10 I mean, this is very unusual how this
11 all happened. And given the way it happened, I
12 think the Department -- and I may be wrong, which
13 is fine. I've been wrong before -- but my view
14 is that the Department had some discretion in how
15 to administer that right, or administer rights
16 that were junior in priority to that decree.

17 Q. Now, I know that you signed the order,
18 Rangen's Second Amended Order that we're
19 referring to. And in that order, the
20 determination was that Rangen's call was futile?

21 A. Correct.

22 Q. Was that determination yours?

23 A. Yes, it was.

24 Q. Was it based on reliance, other than on
25 the records, on anybody else's suggestion to you,

1 A. It was not. And the reason it wasn't
2 is because there was no action -- I mean, it
3 didn't contemplate any action that would benefit
4 Rangen, or perhaps be detrimental to the holders
5 of junior rights. So I didn't see the need for
6 the emergency basis.

7 Q. If I could just talk about the modeling
8 for just a moment. If I understood correctly,
9 your testimony was that there was some speed
10 involved in getting the modeling put together for
11 use with these orders; is that true?

12 A. Well, we'd been at the model
13 development for, gosh, I don't remember.
14 Certainly, two years. And probably more like
15 three years by this point in time. And I could
16 see this all coming. I could see it was headed
17 right at me. So, yeah, I was very interested in
18 bringing the model development to a reasonable
19 conclusion. But, you know, having said that,
20 you've got to be right. I mean, the model had to
21 be as right as we could make it.

22 Q. If you had more time, would it have
23 been more accurate?

24 A. Oh, I don't know that. How do you
25 improve model accuracy? Well, you can improve

1 assumptions. You can increase the amount of data
2 you've got to calibrate to. You can maybe get
3 data that represent different conditions that you
4 can calibrate to. So, I mean, you can always
5 improve a model with more information. And more
6 information usually requires more time.

7 But, I mean, having said that, this is
8 one of the best ground water models -- probably,
9 the best ground water model I've been exposed to.

10 Q. Did anybody on the committee or on your
11 staff indicate, we need to slow down? We need to
12 slow this down, so that we can make this more
13 accurate?

14 A. No. In fact, the contrary, there were
15 people on the committee that said, we've been at
16 this long enough, it's time that we begin to do
17 something about the problem.

18 Q. So it was you that tried to slow it
19 down then, or --

20 A. No, I wouldn't say I tried to slow it
21 down. I mean, I was interested in bringing it to
22 completion. But I did not exert any, you know,
23 top down pressure to get it done. You know, I
24 continued to participate. I continued to
25 encourage progress. But I didn't say, look,

1 to be all that significant. But there is room
2 for disagreement.

3 MR. MAY: I don't have any other
4 questions. Thank you.

5 MS. McHUGH: Can we go off the record?
6 (Discussion held off the record.)

7 EXAMINATION

8 QUESTIONS BY MS. McHUGH:

9 Q. I just had a couple of follow-up
10 questions.

11 A. Okay.

12 Q. Do you know of any changes in the North
13 Side Canal Company that may have affected seepage
14 from the canal as it relates to maybe spring
15 users?

16 A. Yes and no. I don't recall what order
17 it's in. But, you know, I did talk with Ted
18 Diehl off and on over the years about what North
19 Side was doing in terms of canal repairs and
20 reducing leakage. And there was a period of time
21 that they were particularly more aggressive in
22 terms of trying to repair problem areas in the
23 canal to reduce the amount of loss.

24 And I mean to the point to where at one
25 juncture, I don't remember what the time period

1 you've got until this date, and then we're going
2 to go with it. We never did that.

3 Q. The conclusion being in this order that
4 if all the wells were shut down, that the
5 Thousand Springs to Malad Gorge Reach would only
6 get a five cfs increase?

7 A. Yes.

8 Q. Was there ever any investigation done
9 or research done to see how that five cfs would
10 have impacted Rangen's facility and their ability
11 to operate at a profit?

12 A. I don't remember what other diversions
13 are in that reach. I don't recall that
14 Rangen -- I mean, my recollection is that Rangen
15 was not the only diversion. So unless Rangen
16 made some agreement with other people not to
17 divert the increased water supply available,
18 Rangen would have gotten a very small portion of
19 that.

20 And, you know, we wouldn't -- that
21 doesn't -- we normally would not look at the
22 financial aspects of whether that would really
23 make a difference. We stick to the water issues.
24 And that five cfs spread among the reach and the
25 various diverters there just really did not seem

1 was. But essentially, Ted Diehl expressed the
2 belief that the actions in repairing the North
3 Side Canal reduced the water that was available
4 to Munser and resulted in the Munser call. You
5 know, I wasn't here then. I have no way of
6 knowing whether that's an accurate representation
7 or not. But it is a representation that he made
8 at one point.

9 In one of these orders, I made an
10 attempt to see if there was any correlation
11 between the specific dates, at least in terms of
12 years, that Ted Diehl identified as making
13 significant repairs, and whether that correlated
14 with any reduction in spring discharge. And, you
15 know, I don't recall if there was any -- I don't
16 think there was any strong correlation, but there
17 was -- possibly is correlation. But that's as
18 much as I recall about that.

19 Q. And do you recall that it's in the
20 orders, or it was just done as part of the
21 analysis leading up to the orders?

22 A. No, I -- maybe my recollection is
23 flawed. It could be. But I thought I put it in
24 there, because I just almost can picture the
25 finding in my mind that set forth the dates

1 and -- but I don't remember anything more than
2 that.

3 Q. In your order, is there any expectation
4 of when the water curtailed will appear in any
5 specific reach?

6 A. Yes. In these orders dealing with the
7 delivery calls from the spring users, we don't
8 talk about the transient conditions directly.
9 But certainly the model simulations that were
10 used to simulate curtailment, some of them at
11 least would have involved transient results that
12 would indicate how much water would accrue each
13 year during the curtailment up to steady
14 conditions.

15 However, and I know it's not the
16 subject of this current effort, but I believe
17 that in the Surface Water Coalition order, there
18 is more of a description about the transient
19 benefits that would occur.

20 Q. Do you know, generally, what the
21 priority dates are of the wells that are closest
22 to the springs?

23 A. I did at one time. I don't recall what
24 those are. But at one time, I asked that
25 specific question and had a -- I don't remember

1 recall.

2 Q. I think you testified earlier today
3 that a 90-percent conveyance loss would be
4 considered wasteful, or you would consider it
5 wasteful. Am I characterizing that correctly?

6 A. Well, I used it in the context that I
7 just made that. And I constructed a hypothetical
8 into which canal diverted a thousand cfs, and
9 lost 90 percent of it at one location. 90
10 percent loss sounds wasteful, regardless of where
11 it's occurring.

12 But, again, usually you have to make
13 those determinations on a case-by-case basis. So
14 I would be uncomfortable saying that, you know,
15 30 percent is wasteful, but 29 percent isn't. I
16 mean, it just depends on the facts that follow.

17 Q. Okay. Is a water user entitled to
18 approve their efficiency?

19 A. Yes.

20 Q. And if a junior user relied upon the
21 runoff prior to the improved deficiency, could
22 they call for its continuation?

23 A. If what?

24 Q. If a junior relied on the runoff that
25 resulted prior to the improved deficiency, could

1 if it was a memorandum. It probably wasn't a
2 memorandum. I got some documentation that
3 identified the band, the priority band of the
4 most significant numbers of wells above the
5 springs. And I just don't recall what that is.

6 Q. And you don't recall if they were
7 generally junior or generally senior?

8 A. I don't. I can't --

9 Q. And do you remember the person --

10 A. Senior to what; to the users?

11 Q. To the springs making the call.

12 A. I don't recall.

13 Q. Do you remember the person that you
14 asked to provide that documentation?

15 A. It may have been Jeff Peppersack. And
16 if not him, his predecessor, who I don't remember
17 his name.

18 Q. You would believe it still exists
19 somewhere potentially, even though it was
20 just --

21 A. Potentially, but I don't know, because
22 it was never -- I don't think it was ever
23 formalized into a memorandum that would have been
24 put into our system. It was just an inquiry. It
25 was out of curiosity more than anything, as I

1 the junior call for the continuation of the less
2 efficient method?

3 A. Okay. What's confusing me there is the
4 term "runoff." Normally I think of runoff as
5 being snow melt.

6 Q. Return flow.

7 A. Return flow. Okay. Now, restate the
8 question using "return flow."

9 Q. Okay. If a junior relied upon the
10 return flow that occurred prior to the improved
11 deficiency, could they call for the less
12 efficient method to continue?

13 A. No.

14 Q. Is there a parameter when looking at
15 futile call, for example, where you would
16 determine that the resources are being wasted if
17 the delivery call was enforced?

18 It's not the best question, but I think
19 you get my meaning.

20 A. Well, I'll go back to the example I
21 used in somewhat hypothetical in a real setting.
22 The Big Lost example where the juniors upstream
23 could divert 100 cfs. And if they were curtailed
24 10 cfs, may or may not make it down to the
25 seniors. I think some, and probably I would be

1 included, would tend to view enforcing that
2 delivery call a waste of the resource given that
3 90 percent of the water available -- and, again,
4 these are not hard numbers, they are fact
5 specific -- but 90 percent of the water that was
6 available wasn't used, and it was lost to the
7 underlying aquifer system, and not re-diverted to
8 wells or anything else for beneficial use.

9 So, you know, that wouldn't -- does it
10 rise to the level of waste? Maybe not. But it
11 certainly would not be an optimal use of the
12 resource, which is one of the principles in the
13 prior appropriation system that we had.

14 Q. And is optimal use also a consideration
15 in the conjunctive administration between the
16 surface water and ground water users?

17 A. Yes, it is.

18 MS. McHUGH: Nothing further. Thank
19 you.

20 MR. RASSIER: I have just one question.

21 EXAMINATION

22 QUESTIONS BY MR. RASSIER:

23 Q. Karl, you've been asked a lot of
24 questions over the last two days and given a lot
25 of responses. Are there any of your responses

1 released past Milner would be added to the Swan
2 Falls minimum.

3 And the reason for that, is the
4 provision in the Swan Falls Agreement that
5 specifically identifies that any actions that
6 Idaho Power undertakes to improve flows, are not
7 to be counted towards meeting the minimum flows.

8 And initially, when we started this,
9 when we had to make the determination of whether
10 the flow augmentation releases made by the Bureau
11 were in addition to the Swan Falls minimum, or
12 whether they could be accounted for as meeting
13 the Swan Falls minimum. There was an agreement
14 between the Bureau and Idaho Power for power
15 generation and shaping of Hells Canyon.

16 So we made that determination based on
17 that agreement. I don't know if any such
18 agreement exists today. And if those flow
19 augmentation releases continue to be -- whether
20 or not they are deemed to be actions of Idaho
21 Power that will be in addition to the Swan Falls
22 minimum. I just don't know.

23 But that's one area where things could
24 have changed. And what the Department is doing
25 in terms of accounting for those flows, and

1 that you would like to clarify or change that you
2 thought about?

3 A. Well, I guess you always think further
4 about these things. But, of course, I've thought
5 quite long and hard for many years leading up to
6 all this.

7 But, you know, since -- even though
8 I've only been gone just slightly less than a
9 year, you know, things change. And, you know, I
10 have not been involved, at least to date, in any
11 of the current deliberations regarding the Swan
12 Falls Agreement in light of Idaho Power's action
13 filing.

14 And, you know, perhaps I should clarify
15 the responses that I gave on some aspects of the
16 Swan Falls Agreement, as being what the situation
17 was then, and maybe not what's the situation now.
18 And, you know, for example, there was some
19 discussion with John, and he's not here now, but
20 there was some discussion back and forth with
21 John about what flows are or are not included in
22 terms of trying to meet the Swan Falls minimum.

23 And I made the comment that
24 flows -- storage water leased by the Bureau of
25 Reclamation for salmon purposes, and then

1 whether they do or don't contribute to meeting
2 the Swan Falls minimum, that's one area that
3 possibly has changed.

4 Q. Are there any other areas?

5 A. You know, I guess if everybody started
6 over and asked their questions, I may answer them
7 differently, but I would hope they wouldn't be
8 too different. So I can't think of anything.

9 MR. RASSIER: Thank you.

10 MR. STEENSON: Well, given that, I
11 think I'll start over.

12 FURTHER EXAMINATION

13 QUESTIONS BY MR. STEENSON:

14 Q. Karl, I just want to say for the
15 record, I appreciate your patience. And I know
16 it's a difficult issue. And I appreciate your
17 coming and answering my sometimes difficult
18 questions, and giving your best answers. I do
19 have a few more for you.

20 With regard to mitigation, as you've
21 discussed over the past couple of days, and your
22 belief that ground water users could be required
23 to pay for actions that the spring user might
24 need to take to improve their supply.

25 Does that view relate to the case

1 Parker versus Valentine? Are you familiar with
2 that case?

3 A. Yes, I'm familiar with that. And in
4 part, it relates to that. But it's not -- in my
5 view, that's not something that the Department
6 has the authority to require. All we can do is
7 administer the water the best -- I mean, it's
8 hard enough to do a good job at that for heaven's
9 sake.

10 But to the extent that parties reach
11 agreement that certain actions will be taken as
12 mitigation, and that certain other parties will
13 pay for those actions, I think the Department can
14 administer those agreements. And, in fact, is in
15 a position of requiring curtailment in the event
16 that those actions are not followed through on.

17 Q. And could you turn to Exhibit No. 50.

18 A. (Witness complying.)

19 Q. Are you familiar with that document?

20 A. I must be. I signed it. But I'm
21 having to read through it quickly to catch the
22 context. (Witness reading.)

23 Okay. I'm generally remembering this
24 now.

25 Q. Okay. Do you recall if you prepared

1 and asked for them to concur or not.

2 You know, in these kinds of positions,
3 you just don't put the Governor in a situation
4 where he could be wrong. So likely, you know, on
5 something like this, I would have put it out
6 there as my position as the director of the
7 Department. And then if there was criticism of
8 it, the criticism would fall where it should, on
9 me.

10 Q. As in this case, as a spokesman for the
11 Department of Water Resources? You are not
12 expressing your personal view on this matter?

13 A. No, it's not necessarily my personal
14 view. It was my view as Director of Water
15 Resources.

16 Q. And do you recall how this issue of the
17 Swan Falls Agreement was considered by the
18 interim legislative committee that summer, the
19 same summer when this letter was written?

20 A. You know, what I remember from that
21 summer was, I remember the interim committee
22 taking it up, and I remember them convening a
23 panel of -- what was it -- Bob Bruce, and Jim
24 Jones, and someone else -- I don't recall the
25 name offhand -- that had been involved in the

1 this by yourself, or whether you had assistance?

2 A. I would have had some legal help on
3 this.

4 Q. Do you recall from whom?

5 A. Well, certainly, would have input and
6 assistance from Phil. And I don't recall
7 specifically, but undoubtedly, this sort of thing
8 would have at least been reviewed by Clive
9 Strong.

10 Q. And do you recall that you prepared
11 this, at least in part, in response to Deposition
12 Exhibit No. 51?

13 A. Yes.

14 Q. Okay. And the analysis and the
15 opinions expressed in the letter, would you say
16 that they represent your individual view, or the
17 Department of Water Resources' views, or the
18 views of the State of Idaho, with the executive
19 branch?

20 A. I would say that they represent my
21 views at the time as the director of the
22 Department of Water Resources, and certainly,
23 reflect that aspect of the executive branch.
24 But, you know, this is not something that I
25 necessarily went to the Governor's office with

1 Swan Falls Agreement.

2 Q. Do you recall Tom Nelson's
3 presentation --

4 A. Yes, Tom Nelson.

5 Q. -- to the committee?

6 A. I vaguely do, but maybe more of it will
7 come back.

8 Q. And do you recall that after Tom
9 Nelson's presentation to the committee, the
10 committee didn't take up this question of the
11 impact of Swan Falls on Conjunctive
12 Management Rules?

13 A. That's my recollection.

14 Q. On page 2 of this letter, in the last
15 paragraph. In the mix of it are the following
16 words, "Given the specificity with which the
17 agreement was drafted, it is logical to conclude
18 that the parties would have expressly included a
19 provision stating that other surface water rights
20 from the spring sources were also being
21 subordinated by the agreement. And had that been
22 the intent of the parties to the agreement, this
23 would seem to be particularly true given the
24 valuable property rights that would have been
25 affected by such an interpretation."

1 Do you recall that aspect of this
2 letter?

3 A. Well, I'm reading it again now, and I
4 vaguely recall it, yes.

5 Q. In other words, the conclusion there is
6 that the Swan Falls Agreement of subordination
7 affects -- only applied to those who were party
8 to the agreement?

9 A. I want to read the context of the
10 paragraph. (Witness reading.)

11 Okay. Now, could you restate what you
12 asked me?

13 Q. Yes. Is the basic opinion being
14 expressed here, that Swan Falls agreements
15 subordination could not affect a nonparty to the
16 agreement?

17 A. I don't know that it goes that broad.
18 You know, the State has some ability, it seems to
19 me, to condition or affect certain aspects of the
20 rights of entities that were not party to the
21 agreement.

22 Now, having said that, that, you
23 know -- that may cause issues, such as along the
24 lines of regulatory takings to arise. Now, I'm
25 not saying this goes that far. But just to say

1 from Spronk Engineers, representing the ground
2 water interests.

3 And from the very beginning, he always
4 wanted me to write a document defining how the
5 model would be used. And I never would do that.
6 My response was always: I want the flexibility
7 to be able to use the model in any manner, and
8 for any purpose for which it's deemed to be
9 appropriate.

10 The reason I did that is, because had I
11 identified a particular set of purposes -- and
12 let's say had I identified specifically
13 administration of junior rights as being the
14 primary purpose of the model, I think that
15 committee would still be meeting today trying to
16 formulate the model.

17 Because in my view, the ground water
18 folks would have done everything they could have
19 to have delayed -- you know, and I don't mean
20 this critically. I mean, in their own interests,
21 they would have, I think, sought the completion
22 of the model such that there wouldn't be a basis
23 for administration.

24 And, you know, I know that some -- I've
25 read the arguments to some extent, that some

1 that it has no effect on parties, on entities
2 that were not part of the agreement, I think
3 that's probably too far the other way.

4 Q. In any case, you have no reason to
5 modify the analysis concluded in this letter that
6 you --

7 A. Well, that was my -- I have not done
8 any further analysis since that time. I mean, I
9 have no reason -- I don't know anything different
10 today that would cause me to modify that.

11 Q. Okay.

12 A. It doesn't mean that others might not
13 seek to modify it or render it moot.

14 Q. Okay. And with respect to the model
15 that you mentioned, people on the committee of
16 the model. The model was being developed, was it
17 not, with the understanding that it would be used
18 as a management tool; is it not?

19 A. No.

20 Q. What was the purpose that the people on
21 the committee understood or agreed for purpose or
22 purposes of a model?

23 A. Well, the person that was most
24 insistent about trying to force me to identify a
25 limited defined set of uses was Greg Sullivan

1 would say that the model isn't good enough
2 to -- for administration; therefore, you have the
3 decrees that say the sources are
4 hydraulically-connected. That's sufficient. You
5 know the priority dates. You administer all the
6 rights as if they are from the same source.

7 I think equally -- maybe not equally,
8 but another likely or potential outcome of such a
9 scenario, where you didn't have a model to use,
10 would be a court determination that the
11 Department does not have a sufficient basis to
12 determine that curtailing somebody's real
13 property rights will, in fact, be a benefit to
14 those other real property rights that are more
15 senior.

16 So I maintained the most flexible
17 approach that I could, in saying that the model
18 could be used for anything for which it was
19 deemed to be appropriate. And we are where we
20 are.

21 Q. There had nonetheless, been
22 representations to the SRBA Court along the way,
23 by yourself, and then by Counsel for the State,
24 and the Department -- State, I should say, that
25 the State was in the process of developing a

1 model, so that it would have the ability to
2 evaluate impacts for purposes of administration;
3 isn't that right?

4 A. That's correct. That is correct.

5 Q. And the purpose of the connected
6 sources general provisions was to establish the
7 hydraulic connection between the aquifer and the
8 springs. So that legal determination, that
9 determination having coming come out of the SRBA
10 would provide a basis for administration by the
11 Department; is that correct?

12 A. In part. You said to "define the
13 hydraulic connection." I wouldn't say it that
14 way. I would say, the purpose was to identify
15 that there was a connection. And I believe that
16 from my view, the SRBA Court left the
17 determination of the extent of the connection,
18 and the character of the connection, I believe
19 they left that to the discretion of the director
20 of the Department.

21 Q. Sure. And I don't have this as an
22 exhibit. But since we're on this topic, I'm
23 going to show you an August 15th, 2000 document
24 called Director's Response to Opening the base
25 submitted in Basin 5 case.

1 written.

2 And essentially, what I did by issuing
3 the orders in response to the delivery calls, is
4 I essentially said, in this instance, the State
5 has the burden to make the initial determination
6 of injury, not the senior. The seniors shouldn't
7 have to make it. He's got the senior right. And
8 the junior maybe shouldn't have to prove the
9 negative to start with. You know, I mean, the
10 State has the responsibility of protecting the
11 senior rights when calls for water distributions
12 are made. And the State's also the entity that
13 authorizes the junior-priority appropriations.

14 So, you know, my view now, and at the
15 time that I wrote the orders is, that the State
16 ought to take the initial burden. And then if
17 either or both sides disagree with the
18 determinations that are made, then either or both
19 sides have the burden to rebut what was done.

20 I think that's what we're -- where
21 we're at today. Which is a little different than
22 the process I had in mind at the time I did this.
23 You are right, I mean, at the time that I did
24 this, I was thinking of kind of a different
25 approach having to use rebuttable, presumptive

1 A. Okay.

2 Q. And as you recall at that time, there
3 was an effort to develop more comprehensive water
4 management rules, and that effort was not
5 ultimately seen to a conclusion. So in this
6 document where you describe using response zones
7 to create or establish presumptive depletions in
8 the rules would not apply, of course, without
9 anything happening; right?

10 A. Yes.

11 Q. If I ask you to look at this discussion
12 under "Injury," on pages 10 to 14. And tell me
13 if it doesn't basically describe the approach
14 that you've taken in the administration of the
15 call that was made.

16 A. (Witness reading.) How far did you
17 want me to read?

18 Q. Just that section.

19 A. Just down to "Conclusion"?

20 Q. Yes.

21 A. Okay. You know, certain aspects of
22 this discussion in this document, in general are
23 along the lines that we employ, but not all
24 aspects. For example, my thinking regarding
25 burden of proof has evolved since this was

1 depletions. Nobody liked that. I -- you know,
2 the ground water folks certainly didn't like it,
3 and I don't think the surface water
4 folks -- apparently, must have not thought it
5 went far enough.

6 And the whole issue of trying to
7 negotiate comprehensive management rules is, you
8 know -- and again, this is not criticism, but
9 there was positioning and advocating going on
10 from the get go. And it seemed like the more we
11 attempted to come together, the farther apart we
12 got. And it just didn't appear that there was a
13 broad enough will to work together to come up
14 with a set of rules that everybody would accept.

15 It's almost like entities didn't want
16 to give up a position, until they knew whether
17 they had to give it up or not. And so it just in
18 that climate, it was not possible to have
19 achieved it. We turned our attention to other
20 aspects of preparing to deal with the problem:
21 Focusing on the reformulated re-calibrated ground
22 water model; getting about the business of
23 creating water districts; making sure that the
24 adjudication was moving forward towards
25 completion.

1 So I don't know -- I mean, in general,
 2 maybe parts of this are certainly consistent with
 3 what we've done. But I don't know that that
 4 outlines the approach that I took. You know,
 5 Doug Grants' article is cited in here, and I
 6 certainly read that. I thought he did a good
 7 job -- from my perspective, he did a good job of
 8 identifying the areas that we were headed into.

9 Q. And so those rules weren't written to
 10 themselves, establish a rebuttable presumptions
 11 that you did as you advised the court and parties
 12 in Basin No. 5 to proceed to use the model to
 13 make determinations about, as you described here,
 14 the extent of the connection?

15 A. I did.

16 Q. Okay. And Doug Grants, as summarized
 17 by you here, that if there were no clear
 18 hydraulic connection, then the burden would be on
 19 the senior to establish the existing. But in the
 20 adjudication, that hydraulic connection would be
 21 established by the connected sources general
 22 provision?

23 A. But not the extent of it.

24 Q. And not the extent. So that was as
 25 Judge Burdick -- then Judge Burdick wrote in his

1 Q. And there has come to be over the years
 2 now, as it has been explained to the House and
 3 Senate committees and probably an expectation
 4 within the state government, that the model would
 5 be used for administration; is that fair?

6 A. I think that's fair. You know,
 7 I -- it's not in response to a question that you
 8 asked. But I would offer that, you know, I can't
 9 recall the specific cite. There is a recent
 10 court case out of Colorado, where the court
 11 determined that the state engineer was correct in
 12 relying on a ground water model to make a
 13 determination in the validity of the model, the
 14 adequacy of the calibration were all issues in
 15 that litigation.

16 And the court, as I recall, found that
 17 the state engineer was within his discretion to
 18 use the model. And, in fact, it was not only the
 19 best information available, but the only
 20 information available that the state engineer had
 21 to use.

22 And in looking at that decision in the
 23 exhibits that were -- the evidence that was
 24 presented regarding the calibration, it wasn't
 25 nearly as well calibrated as what we're using

1 Basin Wide 5 -- and that would be attached in the
 2 Department, the abilities to do the technical
 3 work to establish the extent of the connection;
 4 correct?

5 A. I think that's correct, yes.

6 Q. Okay. Now, with respect to the model,
 7 some have expressed the view that it can't be
 8 used for purposes of administration, unless it
 9 can with a high degree of accuracy or certainty
 10 to predict the quantity and timing of water that
 11 might be delivered to a specific spring, as a
 12 result of curtailment of a particular well.

13 What's your feeling about that?

14 A. I obviously disagree with it, because I
 15 used it, in spite of not being able to look at
 16 the effect of an individual well and an
 17 individual spring.

18 Q. This gets at the issue of resolution in
 19 the model; does it not?

20 A. Not just resolution, but the underlying
 21 sums that you can adequately represent a
 22 nonhomogeneous fractured material with an
 23 equivalent homogenous, at least on a cell
 24 by -- within a particular cell, on an equivalent
 25 homogenous force material, if you will.

1 here.

2 Q. And certainly models that are complex
 3 and require a number of assumptions or inputs of
 4 information, have been used in the water quality
 5 context for many years to manage water quality in
 6 the State of Idaho. And as you mentioned, the
 7 use of this type of model for management of water
 8 resources is not a new occurrence?

9 A. It is not.

10 MR. BROMLEY: Karl, if I could ask a
 11 clarification?

12 THE WITNESS: Sure.

13 MR. BROMLEY: Was that the Water
 14 District 3 out of San Luis Valley that you were
 15 talking about?

16 THE WITNESS: It may have been. It was
 17 having to do with developers that wanted to
 18 appropriate water, as I recall, where the state
 19 engineers had -- based upon the model results,
 20 there was no unappropriated water available,
 21 something along those lines.

22 But it didn't deal with the transfer.
 23 It dealt with new appropriations. Is that the
 24 Arkansas or the --

25 MR. BROMLEY: That would have been the

1 Rio Grande at Alamosa; is what the court says?
2 THE WITNESS: Well, it's a decision
3 that has come out in the past year. It's fairly
4 recent.

5 MR. BROMLEY: Colorado Supreme Court?

6 THE WITNESS: No, district court.

7 Q. (BY MR. STEENSON) Now, the model is
8 not required for us to know that the Eastern
9 Snake Plain Aquifer is hydraulically-connected to
10 the Thousand Springs, including the springs at
11 Blue Lakes Farms and leased water right?

12 A. Well --

13 Q. I mean, just as a matter of fact, not
14 as to the extent of the connection. Just the
15 extent there is a connection.

16 A. Well, the court has -- I mean, the
17 decrees have this provision that says there is.
18 So as a matter of law, there is a hydraulic
19 connection.

20 Q. But even without the decrees, we can
21 ascertain as a hydrologic fact, that the ESPA is
22 connected to the springs without needing to
23 employ the model?

24 A. Well, I wouldn't say, as a hydrologic
25 fact. But as a fact, it's connected. But that

1 Q. Okay.

2 A. And, again, that begins to show how
3 complex this becomes. It just isn't simple that
4 ground water levels go down, and spring discharge
5 go down. I mean, it looks like it ought to be,
6 but it isn't. Ground water levels could stay up
7 generally.

8 And if you increase the gradient so
9 that there is less remaining elevation head at
10 the springs, that's going to reduce spring
11 discharge, even though the overall ground water
12 levels may not have declined.

13 Q. Okay. With respect to your order page
14 2 --

15 A. I don't remember what exhibit that was.

16 Q. It's Exhibit No. 11.

17 A. (Witness complying.)

18 Q. I'll read you the statement, and tell
19 me if you continue to agree with it. "With
20 parallel appropriations of ground water which
21 dramatically increased beginning in about 1950,
22 ground water levels across the ESPA have
23 responded by declining in most locations that
24 were level at preexisting conditions, exacerbated
25 by the worst consecutive period of drought years

1 doesn't replace the need to determine the extent.
2 Because I'll continue to assert, based upon the
3 results from the model, that not all ground water
4 diversions affect spring discharge.

5 Q. Sure. My next step -- or my next
6 question was going to be a little different than
7 what you anticipated. But the next matter of
8 that doesn't necessarily require employing a
9 model, is the understanding that activities that
10 cause a water table to decline, will also cause
11 connected springs to decline as a general matter?

12 A. I'm not sure I would say that that's
13 necessarily true. It depends on what you mean by
14 "decline."

15 Q. Let me ask the question this way,
16 because I'm short of time. Activities that
17 affect aquifer levels affect connected springs?

18 A. Well, but it's not just -- what I'm
19 trying to get at, it's not just the levels. It's
20 the grading. There is a fairly -- well, there is
21 a gradient in the ground water levels right above
22 the springs. I mean, it's caused by the spring
23 discharge, and in part, themselves. So it isn't
24 just the levels. It's also things that can
25 affect the gradient to influence discharge.

1 on record for the Upper Snake River Basin. As a
2 result, spring discharges in the Thousand Springs
3 area have correspondingly declined based on the
4 USGS data, and is also shown on Attachment A."

5 Now, I know you discuss a lot of other
6 factors that affect these issues. But I assume
7 that you don't have any reason to modify that
8 observation?

9 A. No, but it's -- you know, when you
10 write something like this, you hope people don't
11 read it and say, it is just that, and just that
12 alone.

13 Q. You didn't integrate that in the
14 question?

15 A. No, I'm trying to clarify. I agree
16 with the statement as written as a summary, or
17 kind of overall description of what's occurred.

18 Q. That's all I'm asking. And then beyond
19 that you use the model and whatever other tools
20 and information you have available to you, to
21 further ascertain the relationship, to the extent
22 you can, between seepage, recharge, pumping and
23 spring flows and spring water rights. That's
24 been the approach you've taken?

25 A. That's correct.

1 Q. Now, the Blue Lakes' water rights
2 having been established in the '70s, after the
3 peak in the incidental recharge to the aquifer,
4 is it possible that curtailing junior ground
5 water rights, that, by definition, didn't exist
6 at the time of Blue Lakes' appropriation, could
7 enhance conditions beyond or better than those
8 that existed on the date of Blue Lakes
9 appropriation?

10 A. Just curtailing ground water rights?

11 Q. Yes.

12 A. Okay. So the question is: Could just
13 curtailing ground water rights enhance the water
14 availability at the springs beyond the time of
15 the appropriations of the early '70s?

16 Q. Right.

17 A. No. I would say, no.

18 Q. Okay. Then looking at your order of
19 May 19th, 2005, again, Exhibit 11, page 11,
20 paragraph 50. And there is the statement that,
21 we've gone over, past midway in the paragraph.
22 "Blue Lakes Trout is not entitled to a water
23 supply that is enhanced beyond the conditions
24 that exist at the time such rights were
25 established."

1 Is the converse of that, Blue Lakes is
2 entitled to a water supply that reflects
3 conditions that existed at the time the rights
4 were established?

5 A. Well, this relates to what Blue Lakes
6 has a right to demand through curtailment. And,
7 you know, what this finding was getting at, is
8 we've talked extensively not in -- obviously, not
9 in agreement -- about the seasonal variation in
10 the spring discharge.

11 That seasonal variation exists today.
12 It existed when the rights were appropriated,
13 although we can't quantify the extent of the
14 variation, because we don't have the sufficient
15 data to do it. But we know that at the time the
16 rights were appropriated, irrigation using
17 surface water supply was done seasonally. That's
18 the overriding factor in the seasonal variation
19 in this observed spring discharge.

20 And so what this finding is trying to
21 get at is that, although Blue Lakes has a right
22 to divert water up to the maximum authorized
23 amount when it's available, it doesn't have the
24 right to seek -- it doesn't automatically have
25 the right to seek curtailment of junior-priority

1 rights, just because that quantity is not always
2 available. That's what this finding is getting
3 at anyway.

4 Q. Okay. So is Blue Lakes then entitled
5 to a water supply as it existed at the time of
6 appropriation?

7 A. No, I don't think so. And here's why:
8 The water supply that was available at the time
9 of appropriation was in large part the result of
10 third parties, over which the State has no
11 control, nor do you.

12 And I've said publicly before, that if
13 an error has been made by the State in allowing
14 the appropriation of unappropriated water, it was
15 not correctly characterizing the nature of that
16 unappropriated water. That remains my position.

17 So I don't think there is an
18 entitlement. I mean, the conditions were what
19 the conditions were when Blue Lakes appropriated
20 the water, and they are not necessarily entitled
21 to an improvement of those conditions through
22 curtailment of junior rights. But you
23 can't -- it doesn't go the other way.

24 Q. Okay. So I take it that the
25 maximum that the decree defines, in your view, is

1 further defined by the conditions that existed at
2 the time of the appropriation; is that correct?

3 A. In part, I think that's correct.

4 Q. And that would then mean, in the
5 context that we're discussing here, the seasonal
6 variation of flow that existed at the time of the
7 appropriation; is that correct?

8 A. That's correct.

9 Q. Okay. And that, as we've discussed
10 those flows that existed at the time of the
11 appropriation, are whatever they were, less than
12 the flows that existed in 2004; correct?

13 A. Correct. But the -- but, again, some
14 magnitude of seasonal variation, probably not too
15 much unlike what exists today, existed at the
16 time of the appropriation.

17 Q. Sure. Then is the effect of the order,
18 where you conclude that Blue Lakes' water rights
19 are satisfied with the flows that were present in
20 2004, is the effect of that to limit Blue Lakes'
21 water rights for purposes of administration to
22 the water supply that existed in 2004?

23 A. No.

24 Q. Does it end up having the effect that
25 Blue Lakes is not entitled to a water supply

1 enhanced beyond the conditions that existed in
2 2004?

3 A. No. Although I qualify the word
4 "entitlement." Again, when I say, no, I mean I'm
5 referring to what -- I'm trying to define the
6 term "entitlement," as authorization to divert.

7 Q. Okay. So if I replaced in my prior
8 questions the word "entitlement" with the phrase
9 "authorized to divert," would you have agreed
10 with those statements in the prior questions?

11 A. I don't know. I would have to go back
12 to those prior questions. But at least in this
13 particular one --

14 Q. Let me try it the way you would like me
15 to ask it then.

16 Does the order have the effect of
17 limiting the amount of water that Blue Lakes is
18 authorized to divert, or received by way of
19 curtailment, to the flows under its second
20 priority water right, to the flows existing in
21 2004?

22 A. No.

23 Q. Why not? It seems like it does to me.
24 Because you are saying that the water right was
25 satisfied in paragraph 64 by the flows existing

1 MS. McHUGH: We have it in on our disk,
2 the Blue Lakes, Thousand Springs.

3 MR. STEENSON: Did you get a different
4 disk than I did?

5 MS. McHUGH: Maybe.

6 MR. RASSIER: You got the same disk.

7 Q. (BY MR. STEENSON) At Blue Lakes, are
8 you aware that Blue Lakes' springs is up-gradient
9 and separated by some distance from Alpheus Creek
10 where Blue Lakes --

11 A. Yes.

12 Q. Okay. So is any consideration made of
13 the fact that Blue Lakes would have no ownership
14 interest in the springs to try to improve them,
15 or through wells in the location where they
16 surfaced?

17 A. I'd have to look at the memo. But I
18 don't think any of those types of activities were
19 even suggested, because of the fact that Blue
20 Lakes diverts out of Alpheus Creek, not directly
21 from the springs. And the springs are on
22 different property than is owned by Blue Lakes.

23 Q. And does your May 19th, 2005 order
24 reflect acknowledgment that Blue Lakes diverts
25 from Alpheus Creek, and not from springs?

1 in 2004.

2 A. Well, again, I'll go back to how
3 I -- and I apologize for repeating it, but I
4 would answer it the same way. What this
5 finding -- this series of findings does, 63, 64
6 and 65, clearly the first right is not being
7 injured, clearly the third right is. And it's
8 not clear that the second right is.

9 Q. Now, with respect to the investigation
10 done by Cindy Yenter and Brian Patton at Clear
11 Springs that you discussed with John a little bit
12 ago, did they conduct the same kind of
13 investigation at the Blue Lakes?

14 A. Yes.

15 Q. So they would have been seeking the
16 same information and asking the same questions,
17 basically, at Blue Lakes?

18 A. Yes. And in all cases, Blue Lakes,
19 Clear Springs, Rangen, there is a memorandum to
20 me that they prepared documenting the
21 investigation, and their findings, and their
22 recommendations.

23 MR. STEENSON: Is that memorandum a
24 part of the record; do you know, Phil?

25 THE WITNESS: I'm pretty sure it is.

1 A. It diverts -- the order reflects that
2 Blue Lakes diverts from Alpheus Creek, which is
3 supplied by spring discharge.

4 Q. And spring discharges come from ESPA;
5 correct?

6 A. Correct.

7 Q. And some of that water from the ESPA
8 came from above ground sometime in history?

9 A. Correct.

10 Q. And before that, who knows?

11 A. Correct.

12 Q. And along the course of this process of
13 conductive administration, and all the work
14 you've done, has there been discussion of concern
15 about the Thousand Springs, what's happening to
16 the Thousand Springs as the ESPA declines as a
17 loss of a state resource, not as any particular
18 individual water right, that Thousand Springs is
19 a State concern?

20 A. Yes.

21 Q. Summarize that discussion for me.

22 A. Well, it's not like there was a single
23 discussion. It's been a topic that's been in the
24 discussions from the beginning.

25 Q. Let me rephrase the question. Can you

1 summarize the concern, rather than the discussion
2 you had?

3 A. Well, the concern is, I think simply
4 that -- you know, it's not simple. But the
5 concern is that the springs have provided all
6 sorts of opportunities for people to use and
7 enjoy. And whether those uses are economic,
8 whether they are aesthetic, whether they are
9 recreational, and we're struggling to maintain
10 that. But it's worth maintaining it if we can
11 find a way to do it.

12 I think that summarizes the discussion.
13 And the question has always been: What can we
14 do? How much can we do? What's it going to
15 cost? Who pays? And how much is enough? How
16 much of trying to get -- you know, it gets back
17 to the goals and the objectives that we all
18 struggled with on the straw man proposal. What's
19 going to be the measure of success? Is it
20 stabilization? Is it reversing the declines?
21 And if so, how much.

22 Q. Do you think the value of the springs
23 for their aesthetic and recreational purposes, as
24 reflected in the discussion or discussions in the
25 concern you've just described, is a factor to be

1 measurements of -- and it was a comprehensive
2 effort to measure the discharge from all the
3 discrete springs that they flow.

4 In the spring reach that we define, and
5 in which the Blue Lakes -- all right -- there is
6 the springs supplying Alpheus Creek in the reach
7 in which those springs lie, those springs account
8 for 20 percent of the measured discharge. So the
9 assumption is that 20 percent of any improvement
10 is estimated to accrue to Blue Lakes.

11 MS. McHUGH: Thank you.
12 (Deposition concluded at 2:53 p.m.)
13 (Signature requested.)
14
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1 considered in the optimum development of the
2 Water Resources of the State?

3 A. Yes.

4 MR. STEENSON: Thank you, Karl. I
5 appreciate it. I know you have to go. And I'm
6 done.

7 THE WITNESS: Okay.

8 FURTHER EXAMINATION
9 QUESTIONS BY MS. McHUGH:

10 Q. Can I ask a point of clarification, and
11 just one quick question? I may not have heard
12 you on Dan's question about the model. And just
13 ask it simply: Can the model predict with any
14 specificity an increase in the amount of
15 discharge to the spring that supplies Blue Lakes,
16 or the spring that supplies Clear Springs, how
17 much increase they will see as a result?

18 A. Well, you can do as I did in the order,
19 and estimate the increase that's likely based
20 upon the increase that occurs to the spring
21 reach, and the proportion that a particular
22 spring contributed historically to the discharge
23 in that reach.

24 So in the case of Blue Lakes, that
25 number is 20 percent. When the USGS did their

1 CERTIFICATE OF WITNESS

2 I, KARL J. DREHER, P.E., VOL. II, being
3 first duly sworn, depose and say:

4 That I am the witness named in the foregoing
5 deposition, Volume II, consisting of pages 158
6 through 402; that I have read said deposition and
7 know the contents thereof; that the questions
8 contained therein were propounded to me; and that
9 the answers contained therein are true and
10 correct, except for any changes that I may have
11 listed on the Change Sheet attached hereto:

12 DATED this ____ day of _____, 200__.

13
14
15 _____
16 KARL J. DREHER, P.E., VOL. II

17 SUBSCRIBED AND SWORN to before me this ____
18 day of _____, 200__.

19
20
21 _____
22 NAME OF NOTARY PUBLIC

23 NOTARY PUBLIC FOR _____

24 RESIDING AT _____

25 MY COMMISSION EXPIRES _____

- 1 ERRATA SHEET FOR KARL J. DREHER, P.E., VOL. II
- 2 Page ___ Line ___ Reason for Change _____
- 3 Reads _____
- 4 Should Read _____
- 5
- 6 Page ___ Line ___ Reason for Change _____
- 7 Reads _____
- 8 Should Read _____
- 9
- 10 Page ___ Line ___ Reason for Change _____
- 11 Reads _____
- 12 Should Read _____
- 13
- 14 Page ___ Line ___ Reason for Change _____
- 15 Reads _____
- 16 Should Read _____
- 17
- 18 Page ___ Line ___ Reason for Change _____
- 19 Reads _____
- 20 Should Read _____
- 21
- 22 Page ___ Line ___ Reason for Change _____
- 23 Reads _____
- 24 Should Read _____
- 25 You may use another sheet if you need more room.
- 26 WITNESS SIGNATURE _____

1 **REPORTER'S CERTIFICATE**

2 **I, COLLEEN P. KLINE, CSR No. 345, Certified**

3 **Shorthand Reporter, certify:**

4 That the foregoing proceedings were taken

5 before me at the time and place therein set

6 forth, at which time the witness was put under

7 oath by me;

8 That the testimony and all objections made

9 were recorded stenographically by me and

10 transcribed by me or under my direction;

11 That the foregoing is a true and correct

12 record of all testimony given, to the best of my

13 ability;

14 I further certify that I am not a relative

15 or employee of any attorney or party, nor am I

16 financially interested in the action.

17 **IN WITNESS WHEREOF, I set my hand and seal**

18 **this 8th day of November, 2007.**

19

20

21 _____

22 **COLLEEN P. KLINE, CSR**

23 Notary Public

24 P.O. Box 2636

25 Boise, Idaho 83701-2636

My commission expires September 17, 2011