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Trial Transcript, Vol. 68, Afternoon Session

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File 175
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case # 4993

File # 175

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IN THE DISTRICT COURT FOR THE FIFTH JUDICIAL DISTRICT
WASHAKIE COUNTY, STATE OF WYOMING

IN RE:)
)
THE GENERAL ADJUDICATION OF)
RIGHTS TO USE WATER IN THE)
BIG HORN RIVER SYSTEM AND)
ALL OTHER SOURCES, STATE OF)
WYOMING.)

Civil No. 4993

FILED _____

6/23 1981

Margaret V. Hampton CLERK

DEPUTY

VOLUME 68

Wednesday, May 20, 1981

Afternoon Session

ORIGINAL



1 THE SPECIAL MASTER: Mr. Merrill, you may continue.

2 Are you through with management, almost?

3 MR. MERRILL: I am completely done with it for now,

4 Your Honor.

5 THE SPECIAL MASTER: Fine.

6 MR. MERRILL: New area.

7 THE SPECIAL MASTER: All right.

8 Q (By Mr. Merrill) Mr. Dornbusch, in your direct testimony,
9 you indicated that the approach and the techniques that you
10 used in your economic feasibility analysis are techniques
11 that are recommended and used by, among other agencies,
12 the United States Water Resource Council, is that correct?

13 A That's right.

14 THE SPECIAL MASTER: Before you -- pardon my interrup-
15 ting, Mr. Merrill. Should we wait for Mr. Rogers?

16 MR. MERRILL; Oh, Your Honor.

17 THE SPECIAL MASTER: That was my fault. I zipped
18 ahead.

19 MR. MERRILL: I think we probably better.

20 THE SPECIAL MASTER: Why don't we take a few minutes.

21 (Off the record discussion,
22 (at which time Mr. Rogers
(entered the courtroom.

23 MR. ROGERS: Sorry, Your Honor.

24 THE SPECIAL MASTER: That's okay. Back on the record.

25 dornbusch - cross - merrill



1 Go ahead.

2 MR. MERRILL: Your Honor, I apologize to Mr. Rogers
3 for proceeding in his absence, and in order he has the
4 full story, I will back up and start over.

5 Q (By Mr. Merrill) Mr. Dornbusch, in your direct testimony
6 in this case, you indicated that the approach and
7 techniques that you used in doing your economic feasibility
8 analysis are those recommended and used by the Water
9 Resource Council, among other agencies, is that correct?

10 A That's correct.

11 Q Isn't it true that you regard the Water Resource Council's
12 principles and standards as authoritative in doing this
13 part of analysis?

14 A Not entirely. For the most part, I think they are correct.

15 Q Do you have qualifications concerning the use of the
16 Water Resource Council's guidelines?

17 THE SPECIAL MASTER: Does he have qualifications
18 for what?

19 (Whereupon, the reporter read
20 (back the question: "Do you
21 (have qualifications concerning
(the use of the Water Resource
(Council's guidelines?)

22 THE SPECIAL MASTER: Thank you.

23 THE WITNESS: Yes, I think in general, the economic
24 principles that they describe are valid and useful, but I

25 dornbusch - cross - merrill



1 think there are a number of departures that need to be
2 made, and we have covered at least one and maybe some
3 others so far that we have made, that I think are more
4 correct, or I should say correct, not more correct,
5 but the correct procedures to use.

6 Q (By Mr. Merrill) Are you saying, then, that you don't
7 believe that across the board, they are the appropriate
8 guidelines and standards and methods to be used in this
9 part of analysis?

10 A. Not across the board, that's right.

11 Q Mr. Dornbusch, do you recall when your deposition was
12 taken in Cheyenne on January 12 and 13, 1981?

13 A. Was that my second deposition or first?

14 Q It was the second deposition, I believe.

15 A. Yes, I do.

16 Q Do you recall during that deposition I asked you questions
17 concerning the authority with which you regard the Water
18 Resource Council's guidelines?

19 A. In general, I remember.

20 Q Do you remember the answer you gave at that time?

21 A. Perhaps you could refer me to the page and we could look
22 directly at that.

23 Q Okay. I hand you a portion of the transcript of that
24 deposition, including the cover pages showing the

25 dornbusch - cross - merrill



1 appearances, and I refer you specifically to the line
 2 of questioning beginning on Page 294, Line 17. Would you
 3 please read that portion of the transcript into the
 4 record?

5 A. 294, where?

6 Q. Line 17.

7 A. Okay. Do you want to take your part, and I'll take mine?

8 Q. No, would you please just read it as it appears in the
 9 transcript?

10 A. All right.

11 "Question. (By Mr. Merrill) Dave,
 12 what is your opinion concerning the appro-
 13 priateness of the Water Resources Council
 14 guidelines in evaluating the feasibility
 15 of this irrigation project for these five
 16 projects?

17 Answer. The Water Resources Council
 18 guidelines?

19 Question. Yes.

20 Answer. It is my opinion that those
 21 are appropriate to use.

22 Question. Do you have any qualifica-
 23 tions of that opinion, across the board they
 24 are appropriate guidelines for use in the
 25 kind of analysis that you perform?

Answer. Yes, I think that the princi-
 ples that they suggest are the correct ones
 to use.

Question. How about the methods that
 they suggest?

Answer. Well, that's -- I think the
 dornbusch - cross - merrill



1 general principles that they suggest are
2 the correct principles to use and the
3 methods that you must use in order to
4 adhere to those principles are the correct
5 ones, those are the ones that I have used."

6 THE WITNESS: Shall I continue?

7 Q Yes, please continue through Line 12.

8 A Okay.

9 "Question. Okay, so you would regard
10 the WRC guidelines as authoritative in doing
11 this kind of analysis?

12 Answer. Yes, I would."

13 And I believe that's -- I don't recall that there
14 were corrections made to that statement, but as I said,
15 essentially, the guidelines are correct. What I tried
16 to do here in my answer is to distinguish between the
17 specific principles and the methods, and what I was saying
18 here is that the principles, in general, do apply. The
19 methods, however, are -- the methods to be used should be
20 used with some judgment, and I believe the methods that I
21 used were recommended by the WRC. The ones I used are
22 the correct ones to use. I have described here, and I
23 think we also talked about this in my deposition, the fact
24 that I did deviate with respect to some things, such as
25 the normalization of costs. . That is also part of this
deposition.

Q Mr. Dornbusch, I hand you what has been marked for
dornbusch - cross - merrill



1 identification as Exhibit ED-3. Mr. Dornbusch, I direct
2 your attention specifically to Page 64388 of Exhibit ED-3.

3 A. 64388?

4 Q. Right.

5 A. Okay.

6 Q. And on that page to the righthand column, Section 711.1.

7 A. Okay.

8 Q. Isn't it true that according to the Water Resource Council
9 the principles and standards establish uniform requirements
10 to be followed by federal agencies in formulating and
11 evaluating alternative plans for Level C implementation
12 studies?

13 MR. ECHOHAWK: Objection, Your Honor, to relevance.

14 MR. ROGERS: This is not a Level C type study.

15 MR. MERRILL: Your Honor, counsel for the United
16 States and the Tribes --

17 THE SPECIAL MASTER: Let me finish -- just a minute,
18 let me see what a level study is. Level C implementation
19 studies are defined as program or project feasibility
20 studies generally undertaken by a single federal agency
21 and which are expected to result in project authorization
22 and funding and implementation. Despite the fact it may
23 not be that, I will go ahead and overrule the objection.
24 Go ahead and answer for whatever it may be worth.

25 dornbusch - cross - merrill



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THE WITNESS: What is the question, please?

Q (By Mr. Merrill) The question is aren't these principles and standards the ones that establish uniform requirements to be followed by federal agencies when they are formulating and evaluating plans for Level C implementation studies?

A. Well, evidently according to that paragraph, that is correct.

* * * * *



1 Q (By Mr. Merrill) And don't Level C implementation series
2 include programs for project feasibility studies under-
3 taken which are expected to resolve in project authoriza-
4 tion or funding by Congress?

5 A I suppose they do. I haven't studied what Level C imple-
6 mentation studies necessarily specifically referred to.

7 Q You stated earlier in your testimony that the economic
8 analysis that you did would stand a side-by-side compari-
9 son with those that have presented to Congress for authori-
10 zation. Didn't you say that?

11 A I meant by side-by-side analysis that I feel that the
12 type of study we have done would be appropriate for the
13 purpose that -- we've done it.

14 The type of economic principles that we have used
15 are the same types of principles that would be used in a
16 similar study. There are necessarily differences.

17 The purpose of a study that would seek funding from
18 Congress is different than the purpose that we're address-
19 ing here in a water rights case.

20 MR. ROGERS: Your Honor, I would, on behalf of the
21 Tribes, move to strike the last three questions and answers
22 on the ground that what is involved here is that it was a
23 legal conclusion as to whether or not these WRC guidelines
24 apply in this particular instance, which is not this witness'

25 dornbusch - cross - merrill



1 expertise to answer as to whether or not it should or
2 should not apply in this kind of a lawsuit, whether or not
3 this is the same thing as a Level C study or not.

4 MR. ECHOHAWK: The United States joins in that ob-
5 jection.

6 THE SPECIAL MASTER: I would generally concur, Mr.
7 Rogers, and sustain your objection, but I have just read
8 into the record the specifics from this last Federal
9 Register exhibit, and it's a general application, generally
10 used, it says, and it doesn't bind anybody.

11 It doesn't prevent anyone, this witness or anybody
12 else, from saying they feel their measurement is better
13 than the ones set by WRC or anybody else, so I think we
14 are making much adieu about virtually nothing, so I'm
15 going to overrule the objections, and I will permit a ques-
16 tion or two more, and that's about all on this because
17 I think we have plowed this ground adequately, Mr. Merrill.

18 MR. MERRILL: Your Honor, are you saying you will only
19 permit me another question or two concerning the Water
20 Resource Council Guidelines?

21 THE SPECIAL MASTER: On this particular facet on the
22 Water Resource Council Guidelines, and you may make an
23 offer of proof if you feel that there is material that
24 I have improperly prevented you from getting into the
25 record.



1 MR. MERRILL: Well, Your Honor, I want to state for
2 the record that the purpose of this line of questioning
3 is twofold. First, the witness has himself stated that
4 he regards the WRC standards and principles as authorita-
5 tive in doing this kind of work. He stated that without
6 qualification in his deposition, and he now qualifies that
7 opinion with respect to certain aspects of the WRC guide-
8 lines.

9 For that reason, since the witness himself admits
10 that they are authoritative, perhaps with qualifications,
11 I think that I'm entitled to use those guidelines as a back-
12 drop against which to examine the feasibility studies that
13 this witness did.

14 THE SPECIAL MASTER: You can if there are further
15 departures that he made from their basic outlines or param-
16 eters. You can bring that out, but to pound away at this
17 same distinction he already made on generalizations, such
18 as is the case in having identified ED-3, I don't think
19 would be appropriate, Mr. Merrill, but again, as I say,
20 go ahead with a few questions and let's see where it takes
21 us.

22 (By Mr. Merrill) Mr. Dornbusch, are you generally familiar
23 with the Water Resource Council principles and standards?

24 A Generally, yes.

25 dornbusch - cross - merrill



1 Q Do you know how many accounts are set forth in the princi-
2 ples and standards to be used in evaluating water resource
3 projects?

4 A Offhand? I can't recall.

5 Q Are you familiar with an account within the principles
6 and standards known as the regional economic development
7 account?

8 A Yes, I am -- oh, I see. Yes, I thought you were talking
9 about the subsections within. Yes, there are generally
10 four that are discussed. That's one of them.

11 Q Are you familiar with the principal purpose of the regional
12 economic development account?

13 A Yes, I believe I am.

14 Q Would you state what that purpose is, please?

15 A I frankly don't see the relevance to the work that we've
16 done. Perhaps if we can talk about more specifics and
17 which particular aspect of an economic analysis you feel
18 that perhaps I have omitted or should have included, I
19 could discuss those specifics more particularly and more
20 intelligently.

21 Q Are you saying that you don't know the principal purpose
22 of the regional economic development account?

23 A No, I know the purpose. The reason that the accounts
24 are broken out is to set out analyses at different levels,
25 dornbusch - cross - merrill



1 and the regional economic development account is to set
2 forth the series of analyses as a different level and a
3 different focus than the other accounts.

4 THE SPECIAL MASTER: Then the other accounts or the
5 other regions?

6 THE WITNESS: No, the other accounts. The regional
7 economic analysis focuses on regional impacts as opposed
8 to national economic development impacts, and also opposes
9 to the social well-being and the environmental quality.
10 Those are the other accounts.

11 Q (By Mr. Merrill) I direct your attention to Exhibit ED-3,
12 page 64396.

13 A Okay.

14 Q And on that page to section 711.63 subsection A.

15 A All right.

16 Q You testified, did you not, that the irrigation projects
17 proposed by the United States and Tribes in this case
18 will have significant effects on the employment in the
19 region; is that correct?

20 A On the reservation.

21 MR. ECHOHAWK: Counsel misstates for the witness.

22 THE SPECIAL MASTER: Well, the witness may answer.

23 A I said on the reservation.

24 THE SPECIAL MASTER: If counsel misstated the witness,
25 dornbusch - cross - merrill



1 the witness ought to know it. He said what?

2 THE WITNESS: On the reservation.

3 Q (By Mr. Merrill) Isn't one of the major reasons for
4 costing some of your labor at zero because it will change
5 the employment on the Indian reservation?

6 A No, no. You have a misconception about what opportunity
7 cost means.

8 We're using a resource that's available, a resource
9 that does not have an otherwise value -- a value otherwise,
10 which is the employment resource. There is a large resource
11 of unemployed labor on the reservation that would not be
12 otherwise employed.

13 The value that you place in performing the analysis
14 on that resource is the value at its next best use, which
15 is -- which has no next best use. Therefore, the value
16 that you place on that resource that's used is zero. That's
17 the opportunity cost that we have been talking about.

18 Q My question was: Isn't it true that the irrigation pro-
19 jects that are being proposed would change the employment
20 levels on the Indian reservation?

21 A If the projects go ahead and if the unemployed Indians
22 are employed on the reservation, as we forecast, there
23 would be a change in the unemployment level on the reser-
24 vation, that's right.

25 dornbusch - cross - merrill



1 Q In performing your economic feasibility analysis, did you
2 establish a regional economic development account and use
3 that account to reflect changes in regional employment
4 and regional income?

5 MR. ECHOHAWK: Objection, Your Honor. Beyond the
6 scope of direct and irrelevant.

7 THE SPECIAL MASTER: Read the question again for
8 me, would you please, Vi?

9 (The above question was read back
10 (by the reporter as follows: "Q
11 (In performing your economic feas-
12 (ibility analysis, did you estab-
13 (lish a regional economic develop-
14 (ment account and use that account
15 (to reflect changes in regional
16 (employment and regional income?"

17 THE SPECIAL MASTER: You may answer yes or no.

18 A I did not. I did not feel it was an appropriate analysis
19 to perform.

20 Q (By Mr. Merrill) Why did you omit the regional economic
21 development account from your analysis?

22 THE SPECIAL MASTER: That question is unnecessary and
23 goes beyond the scope of cross, I believe. He said he
24 didn't, and God knows he spent enough time telling us
25 what he did use and why, into every detail, so I'll hold
that your inquiry has been adequate, Mr. Merrill.

MR. MERRILL: Well, Your Honor, I have a serious
dornbusch - cross - merrill



1 problem in proceeding with my cross-examination if I am
2 not allowed to question the witness as to why he did and
3 did not follow certain WRC procedures. In view of the
4 fact that the witness has admitted that those procedures
5 are generally authoritative for this kind of work.

6 THE SPECIAL MASTER: The WRC -- what is the WRC,
7 Mr. Merrill? It's not, you know, the right-hand of God.
8 It's a government political subdivision created for the
9 purposes of assisting in management of water resources in
10 the West, I believe.

11 MR. MERRILL: I think that's correct, Your Honor.

12 THE SPECIAL MASTER: And I believe it's now being
13 recommended by this administration that it be abolished,
14 so I can't believe that it's anything more than another
15 agency that comes and goes in the process of development
16 of western resources.

17 MR. MERRILL: I agree, Your Honor.

18 THE SPECIAL MASTER: And he has testified that he
19 tried to follow their rules and brought out very competently
20 that he's taken some departures here and there, and you may
21 have some matters that you can show that are pretty valid
22 down the road, but to question why he didn't use the
23 regional economic development account I think extends this
24 case unnecessarily and throws an undue burden upon the
25 terrific size of the case already, and if you think I'm



1 harming your cross-examination efforts, then I welcome
2 you to make an offer of proof that, if permitted along
3 this line, you could evolve and develop what you seek
4 to bring out from the witness.

5 MR. MERRILL: Well, Your Honor, it's difficult for
6 me to anticipate the answer of the witness as to why he
7 omitted the RED account from his analysis. Since the
8 witness has admitted that these guidelines are generally
9 authoritative, it is essentially the only backdrop against
10 which I can overlay his work to determine what he did.

11 THE SPECIAL MASTER: All right. I'll let you ask a
12 few more questions on it, but it may not be very many more.
13 Go ahead and answer that last question, if you can.

14 Can you restate it, Mr. Merrill, please?

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1 Q (By Mr. Merrill) Mr. Dornbusch, why did you not include
2 a regional economic development account in your analysis?
3 A. Okay. To put this into prospective, if I can try to do
4 that, my focus is the reservation. My purpose was to
5 determine the feasibility of developing irrigated
6 agricultural projects on the reservation. The way I did
7 the study, I focused specifically on the feasibility of
8 doing just that. Now, beyond what I did, there are some
9 debatable issues, economic issues as to benefits and
10 costs which may or may not be included, and I think some
11 of those benefits and costs you might find it reasonable
12 and economists might reasonably disagree with that.
13 Other of those benefits and costs are more clearly not
14 relevant, and perhaps if I could draw a picture, it might
15 help to explain what I'm talking about and how my thinking
16 progressed on that. Is there a blackboard?

17 THE SPECIAL MASTER: We don't have a blackboard,
18 I'm sorry. Can you do it by --

19 MR. MERCHANT: May I put this on the easel?

20 THE SPECIAL MASTER: All right.

21 THE WITNESS: Unfortunately, I make mistakes.

22 (At this time the witness begins
23 to draw on the easel board to
demonstrate his testimony.

24 Okay. Imagine, if you will, a situation that is
25 dornbusch - cross - merrill



1 a before-after situation, and in the before case. you
2 have a stream running down a valley somewhere, and on one
3 side of this stream, there is a parcel that might be
4 potentially developed by Farmer A. Okay, the other side
5 of the stream, this is a parcel that might potentially be
6 developed by Farmer B. And just for the sake of discussion,
7 let's assume they are the same, and that an economist could
8 go ahead and prepare a benefit-cost ratio analysis to
9 determine the feasibility of developing an irrigated
10 agricultural project on both of these, and he would evaluate
11 the benefits to A, and he would evaluate the costs to A,
12 and he would compute a ratio, and he would do the same
13 thing for B.

14 Let's assume, just for the purpose of discussion,
15 that we come out the same, the benefits to A and the
16 benefits to B are the same, and the cost of A and the cost
17 of B are the same, and for some reason, I don't think it
18 is necessary for discussion right now, a decision is made
19 to divert the stream water to B for irrigation development.
20 So we incur the costs of B and we get the benefits of B,
21 and that happens in the after case. Well, okay. I
22 intended actually to put the diversion -- let's make it
23 a hypothetical diversion.

24 In the after case, we actually have that diversion,
25 dornbusch - cross - merrill



1 and we incur those costs and we get the benefits to B and
2 the costs to B. Okay, now, let's suppose that somewhere
3 down the line -- we have never addressed the question of
4 whether or not the rights to that stream were available to
5 A or B, it was just -- it was something that just wasn't
6 addressed, and B went ahead and diverted the stream, used
7 the water and developed his project. Now we come to the
8 after case. B is already irrigating, A is not, but the
9 question of rights come up. Whose rights do we have?

10 Then we have to decide those rights. Part of the
11 test or maybe the test is on whether it is practical,
12 practical for A to develop his project. Okay. So we
13 go ahead and we evaluate the benefits to A, and we
14 evaluate the costs to A, and we come out with a ratio,
15 and let's say just as before. it is greater than one,
16 it is feasible. Now we have the question, okay, what
17 about what is happening to B over there? B has diverted
18 the water, B has developed that water. The rights to the
19 water are not B's, they are A's, but nevertheless, B has
20 used the water. B is incurring benefits, those are returns
21 to B. If we don't have enough water in the stream, say,
22 for argument sake, without doing some special things like
23 building dams and we are going to divert the water to
24 A because he has the right to it according to this analysis,

25 dornbusch - cross - merrill



1 should we recognize the costs that were incurred by B
2 in the benefits to B?

3 Well, let's take the simple one first, the costs.
4 The costs have been incurred, they are what we call a
5 sunk cost, they are gone. Whether you use that canal,
6 that diversion or not, those costs are incurred, they're
7 history, and the answer is no, you don't include those
8 costs in your analysis. But now the question is, do
9 you include the benefits that are going to be lost to
10 B? You are going to lose those benefits. Should we put
11 that in the numerator here and subtract out the benefits
12 to B?

13 Okay, I think this is the issue, certainly one of
14 the issues of regional benefits, we are going to lose
15 employment over here (indicating), there are going
16 to be other benefits that are lost. Well, if the benefits
17 to A and the benefits to B were equal, by doing that you
18 will come out with zero in the numerator. Even if they
19 aren't equal with an agricultural development project
20 as you have already seen with returns that are not very
21 high, they are not high at all compared to other development
22 projects, industrial projects, it's virtually certain that
23 if you subtract any of the benefits off and certainly all
24 of the benefits off that were accrued to B, that there is
25 dornbusch - cross - merrill



1 no way in the world you are going to justify the
2 project. In fact, the way I would argue is not so much
3 that from the point of view you couldn't justify the
4 project, but in fact, if you later discovered that the
5 water B was using was A's water, we don't know how much,
6 but that's what we are here to decide, or you are here
7 to decide, excuse me --

8 THE SPECIAL MASTER: I don't think we are here to
9 decide whether B has been using A's water. I don't see
10 by any stretch of the imagination that is an issue in
11 this case. I think B has been using the water the State
12 allocated B the right to use. Under the Constitution
13 it gave the right to the water to the State when it was
14 created.

15 THE WITNESS: Fair enough, but then if the water is
16 A's to use --

17 THE SPECIAL MASTER: Right.

18 THE WITNESS: And we are going to divert the water
19 that B has been borrowing from A, now certainly B may
20 have a right to water, but by giving the water to A,
21 there is no water left. I'll get to the next section of
22 how we can supply B with water still with dams and that
23 sort of thing, but if B has been borrowing A's water, then,
24 in fact, these benefits are not relevant, the loss of

25 dornbusch - cross - merrill



1 benefits to B. It is just an activity that B has been
2 pursuing while A has been waiting to use the water.

3 THE SPECIAL MASTER: These are the reasons you feel
4 that you did not use a reasonable economic development
5 account in your work?

6 THE WITNESS: I'm talking -- yes.

7 THE SPECIAL MASTER: Now, go on and let me know what
8 you feel is the way to provide water for both A and B.
9 That interests me immensely.

10 THE WITNESS: If I haven't tied it up, I just want
11 to do that and show you -- point one is there is no way
12 in the world that you can justify a development project
13 if you had to include the losses, but point two is if B is
14 actually borrowing A's water, if that's the case, if B is
15 borrowing A's water that A had a right to all along, then
16 this (indicating) is the valid portion of the analysis.

17 Okay, the other point is that perhaps there are
18 methods to provide B and A with water by putting in a dam
19 and impounding the reservoir, and now we have enough water
20 for A and B. The question here now, is you've got a
21 cost for the dam and whatever else is related to it. The
22 issue is, is it fair then to burden A with those costs only
23 because B came along and developed the water first, the
24 rights? The rights of the first amount of water are to A

25 dornbusch - cross - merrill



1 if it is possible to develop the project and incur those
2 costs.

3 THE SPECIAL MASTER: What if B said to A, "Hey A,
4 you go over there and stay and quit running around the
5 country that you own and we will come and settle it,
6 and we will give you the water you need?" Now, will
7 you crank that into your economic illustration? And then
8 B starts irrigated agriculture.

9 THE WITNESS: B gives --

10 THE SPECIAL MASTER: B said to A, "If you quit
11 running around this country, or better still, agree to
12 to the government to sell us some of this land, we
13 would like to start in business here. You stay put,
14 and then we will give you some water if you stay put."

15 THE WITNESS: That's fine.

16 THE SPECIAL MASTER: Yeah, but I would like to you
17 to talk to these facts because these facts are the facts
18 of life that I'm giving you now, and not a theory.

19 THE WITNESS: Okay. I have to split the facts of
20 life from the analysis of proving what is feasible because,
21 first of all, if you are looking at the test of proving
22 what is feasible, this is what you need to focus on. If
23 you want to provide water for both A and B, there's no
24 question that somebody has got to incur those costs. The
25 question is whether it's the burden of A to assume those



1 costs within the analysis to try to justify the feasibility
2 of this project. It is clear to me that if you want to
3 provide water for A and B and there isn't enough water in
4 the stream without the dam to do it, you got to incur the
5 costs of the dam.

6 Now, maybe I'm speaking out of turn as an economist,
7 as to whose burden it is, but if the people who gave the
8 rights of the water to B originally, such as the state or
9 the federal government, or somebody like that, gave B the
10 right to the water that they were A's rights all along
11 by some notion of the reserved rights doctrine, it seems
12 to me there's somebody like the state or federal government
13 who gave those rights, who, perhaps are the responsible
14 party to set things right.

15 THE SPECIAL MASTER: Who would have a duty to build
16 dams to insure water to both so both projects could be
17 economically efficient?

18 THE WITNESS: I think that is between B and whoever
19 gave B the right, and that is a legal question. If B shows
20 that, "Look, I've been using this water, somebody gave it
21 to me," I think what you have to worry about is whether
22 you have to put the burden on A, whether you have to put
23 the burden on people that informed B he has the right to
24 the water. And in terms of economic equity, I don't think
25 the recourse goes to A, but to the people who gave him the



1 water. I realize I am getting into legal issues, but
2 this is what I'm trying to do, is explain it the way I.
3 as an economist, see it. And simply, to conclude, that
4 is the reason I do not include within my feasibility
5 analysis, which I grant you addresses the theory, but
6 the theory upon which I think this case, from my point
7 of view, is based, and that's the economics of proving
8 a feasible development project, and the benefits lost
9 to B just don't play a part.

10 THE SPECIAL MASTER: Very good. Mr. Merrill?

11 MR. MERRILL: Your Honor, I think for purposes of
12 having a complete record, we probably ought to mark this
13 thing.

14 THE SPECIAL MASTER: I suppose.

15 MR. MERRILL: I will mark the chart that Mr. Dornbusch
16 made as Exhibit WRIR-ED-52 in the lower right-hand corner.

17 MR. ROGERS: For the record, Your Honor, I think
18 we already have a 52.

19 MR. ECHOHAWK: We do. We already have a 52.

20 MR. MERRILL: I will mark out the 52 and make it 53.

21 Thank you, Mr. Rogers.

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1 A (Continuing) Just to complete the thought, I think
2 I began by saying that there might be some benefits
3 in costs that economists might reasonably agree upon.
4 I think this is a principle that economists ought to
5 agree upon (indicating).

6 As to what they might disagree upon is the fact
7 that, yes, we will have some social improvements on
8 the region of the Reservation that are over and above
9 the benefits that I have accounted for. There may
10 be some very specific social and then indirectly
11 by way of social income and economic benefits on the
12 Reservation, and I think that the economists may
13 disagree as to where these may be included. They would
14 only serve make the benefits greater for the project.

15 Q (By Mr. Merrill) Mr. Dornbusch, isn't it true that
16 had you adhered strictly to the Water Resource Council
17 Principles and Standards in performing your analysis,
18 that you would have reflected the loss of benefits to
19 be as shown on Exhibit ED-53 in the regional economic
20 development account?

21 (Brief pause.)

22 A I'm hesitating --

23 MR. ECHOHAWK: Objection.

24 THE SPECIAL MASTER: The objection comes too late.

25 dornbusch-cross-merrill



1 The witness is in the middle of answering the
2 question.

3 A I'm hesitating because I frankly have not read in
4 detail the rationale for including those losses, and
5 while I think conceivably they would be a loss
6 that ought to be considered, I'm not sure that I
7 could answer that categorically that, yes, I would have
8 to include them without reading those guidelines and
9 being absolutely sure, but I do feel the economics --
10 the principles of economics that should be applied
11 to this case should not include the loss outside the
12 Reservation.

13 Q (By Mr. Merrill) Mr. Dornbusch, do you recall during
14 your direct testimony, after being questioned by Mr.
15 Echohawk, stating the following, and I quote, on Page 4933
16 of the transcript, quote: The economic evaluation
17 seeks to determine the true value of the resources
18 consumed and the resources developed in the project.

19 When I say, quote, true value, close quote, the
20 value from the perspective of the people most concerned
21 with the use and consumption of those resources,
22 close quote.

23 Don't you think that the B's are concerned with
24 the consumption and use of the resources as well as

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the A's?

A I think there's no question that the B's are concerned if it means that they must incur some loss, but the issue here is to determine whether it's feasible to develop the irrigated agricultural projects on the Reservation, and whether or not B incurs a loss, there is no question it's of concern to them, but it's not part of the feasibility test of whether it's feasible to develop the agriculture on the Reservation.

Let me go another step. In the hypothetical case where you had no development around the Reservation and no -- and therefore no losses to any users. There wouldn't be any. As opposed to the case where there would be lots of users.

You can see that in one situation the benefit loss to the people who are using those resources might be large indeed, even larger than the benefits accruing to the Reservation.

In the other case there would be no loss of benefits.

It seems to me that it would be very inconsistent to try to award a water right on the basis of allowing those benefits in one case where a Reservation is completely -- the right of water would be completely

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1 dependent upon whether or not someone had developed
2 around the Reservation or not.

3 THE SPECIAL MASTER: Mr. Dornbusch, you have tread
4 onto the area that angels fear to step, but you are
5 now in the legal and philosophic concept, where
6 economists belong, and that is should that evidence
7 be entered in a case of this kind.

8 I have made a ruling some months ago that some
9 evidence of impact on B is appropriate in this case,
10 and I think I still have heard the fire storm hasn't
11 ended from the side that maintains that is a reversible
12 erroneous judgment of mine because if A is entitled to
13 some water, B is entitled to some water period, and
14 the adverse effects on everybody else is irrelevant,
15 and I have ruled, that I will stand by my ruling, and
16 that is I will permit a reasonable amount of questioning
17 along this line, and that doesn't mean of a redundant
18 three weeks of listening to the same ad nauseum, and
19 I think the Counsel for defendants are making up their
20 case, and they will have the best case they can set
21 forth to show this area, and that's the reason for it,
22 and, Mr. Merrill, to pursue this fascinating necessary
23 legal point further with this witness might not be the
24 best way to proceed.

25 dornbusch-cross-merrill



1 I think you should -- you are going to show
2 that a conclusion of feasibility without a benefit
3 consideration is erroneous -- I presume you are?

4 MR. MERRILL: That's the state of the law, Your
5 Honor.

6 THE SPECIAL MASTER: So I think the time to do
7 it is on your own case with your own people, and you
8 will probably have some witnesses in addition to this
9 one, I suspect.

10 MR. MERRILL: That's correct. My purpose in
11 delving into this area of the regional economic
12 development account of the WRC Principles and Standards
13 is to find out whether Mr. Dornbusch took the effects
14 on the B's into account.

15 THE SPECIAL MASTER: Well, he gave some excellent
16 reasons why he didn't, and he may have but set it to
17 one side and felt it was not of sufficient significance
18 and gravamen to destroy the basic concept that A
19 was entitled to some water even though there may be
20 some adverse effects on B, and he felt his duty was
21 to come up with what the facts told him, and he called
22 them as he sees them, as the rest of us in this
23 business.

24 MR. MERRILL: Your Honor, I wasn't quite clear on
25 dornbusch-cross-merrill



1 your ruling. Are you prohibiting me from going into
2 any more questions from this area?

3 THE SPECIAL MASTER: I'm saying we are getting
4 awfully close to the point that I say -- well, you
5 have got some interruptions whether the Court is
6 talking or not. Who is this?

7 MR. MERRILL: Gary Watts, one of the economists
8 for the State of Wyoming.

9 MR. WATTS: I'm glad to meet you.

10 THE SPECIAL MASTER: We will admit you for the
11 purposes of the case even though you are not a lawyer.
12 He's familiar enough with the case to be one, so go
13 ahead.

14 MR. MERRILL: We have virtually admitted Mr.
15 Dornbusch.

16 Your Honor, I'm going to test your patience and
17 try one more question on this area and see how I do.

18 THE SPECIAL MASTER: All right.

19 Q (By Mr. Merrill) Mr. Dornbusch, if you were instructed
20 along these lines, quote, the implied Reservation
21 Doctrine should be applied with sensitivity to its
22 impact upon those who obtained water rights under
23 state law, close quotes, would that change the analysis
24 that you described in conjunction with Exhibit ED-53?

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1 A Would you read that statement again, please?

2 Q Yes. Just the quote?

3 THE SPECIAL MASTER: Do you want her to read it?

4 MR. MERRILL: No, Your Honor, I'll read it.

5 Q (By Mr. Merrill) Quote, the implied Reservation
6 Doctrine should be applied with sensitivity to its
7 impact upon those who obtained water rights under state
8 law, close quotes.

9 A I don't understand what you mean by implied Reservation
10 Doctrine.

11 Q It's the reserved water rights doctrine.

12 A Oh.

13 MR. ECHOHAWK: Objection, Your Honor. It's
14 ambiguous. It also calls for a legal conclusion.

15 MR. ROGERS: Your Honor, I apologize. Maybe I
16 didn't hear the first of the question. I don't even
17 understand what the quote is from either.

18 THE SPECIAL MASTER: I'm going to rule on the
19 objection. Do you wish to object also?

20 MR. ROGERS: Especially if it's not stated who
21 the quote is from, I would object further than I did.

22 THE SPECIAL MASTER: Where the quote is from is
23 really not relevant to the truth or to the answer of
24 this witness. The quote is a quote, and he's quoting it.

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1 I have no doubt but what he will be asked about
2 where the quote comes from soon, but right now I don't
3 think that identifying the quote is necessary.

4 I think explaining what he means by the implied
5 Reservation Doctrine -- and he did say that's the
6 Doctrine of Reserved Water Rights, Federal Doctrine of
7 Reserved Water Rights -- and I think I'm going to
8 permit this man to answer that question over your
9 objections, Mr. Echohawk.

10 MR. ECHOHAWK: We would further --

11 THE SPECIAL MASTER: His only question is how does
12 it apply to your conclusions and would you crank it in
13 any differently if he were doing his work in compliance
14 with that admonition??

15 MR. ECHOHAWK; To amplify my objection, the
16 ambiguous portion is "With sensitivity," the sensitivity
17 portion.

18 THE SPECIAL MASTER: The sensitivity portion is
19 subjective. There is no question about that, but I'm
20 going to let it in anyway. All right.

21 A I think I addressed that. Specifically, my answer is
22 that you should not recognize within you benefit-cost
23 analysis the feasibility analysis of feasibility of
24 developing --

25 dornbusch-cross-merrill



1 THE REPORTER: I'm sorry. I didn't hear that.

2 MR. MERRILL: I think he said irrigable acreage.

3 THE WITNESS: Let me begin over.

4 A -- that the effects that awarding this quantity of
5 water to the Indian Reservation, the effects that
6 might be incurred outside of the Reservation, while
7 they may be of significant magnitude to not have
8 relevance the feasibility of practicably -- excuse
9 me -- ignore that word -- the feasibility of
10 developing the irrigated agricultural projects on
11 the Reservation.

12 I discussed somewhat the fact that we do have
13 a loss of benefits and where there's a loss of
14 benefits, it may be that somebody has an obligation,
15 but whatever obligation there exists, it does not play
16 a role in the feasibility analysis.

17 Q (By Mr. Merrill) So even if you are instructed to be
18 sensitive to the B's, in determining whether the A's
19 have a water right, you still don't care about the
20 benefits to B?

21 THE SPECIAL MASTER: That's been answered.
22 That's exactly what he just answered, Mr. Merrill.

23 If you are looking for emphasis, I don't mean
24 to deny it. But you can stress it when the time comes

25 dornbusch-cross-merrill



1 on appeal. Underline it or whatnot, but he answered
2 that precisely.

3 He recognized the loss, but he did not apply
4 it onto a benefit-cost rationarea.

5 Now, I can ask lots of questions, Mr. Dornbusch,
6 about how far do you carry that proposition, and I
7 think you are going to have to admit as a human being
8 with some degree of neighbors and humanity that you
9 can't carry that to its logical conclusion. Somewhere
10 along the line the law has to impose a boundary on
11 which you have just spoken, right?

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1 THE WITNESS: There is a split, and what I am
2 trying to make clear is that in justifying the
3 quantity of water for the purpose of the irrigated
4 agricultural projects, I don't believe that those
5 loss in benefits apply to the analysis.

6 THE SPECIAL MASTER: Okay.

7 THE WITNESS: The other side is that there is
8 a loss, perhaps. While it may not bear upon the
9 quantification of the right, that somebody perhaps
10 may be damaged, and maybe they seek a remedy outside
11 of the situation that we are talking about here, and
12 I don't -- I think that is a political legal issue
13 that, some of which is not an --

14 THE SPECIAL MASTER: Let's assume that a good
15 many years ago the people at A were starving and B
16 is starving and nobody is eating well, and they said,
17 "We got all kinds of land, we even got some land
18 over here by B, why don't we sell this land over
19 here," said A, "and when the money comes in on it we
20 will let people sit on it and they can settle it
21 and they will help us live and make a living over
22 here," so everybody said, "Okay, let's make a deal,"
23 and that land was sold that is now in hatch marks
24 under B, and 80 years later A comes along and said,
25 "Oh, you people have settled on our B, we are going



1 to take a little of your water, we need it over on
2 A." So now we are getting a quantification of a
3 sensitive federal reservation.

4 Now, how do you feel about that?

5 THE WITNESS: Okay. Let's suppose, taking your
6 example, that A gives up not just a little land, but
7 a lot of land, and people come and settle on that
8 land and they use water to develop it, and now suppose
9 all the water in the stream is used up, all of it.
10 You don't have any possibility for building dams
11 to develop anymore water. Okay, now you have the
12 situation A is sitting on that Reservation, they are
13 seeking the water right, they might have given up a
14 huge amount of land and people are developing it. If
15 you were to crank in the losses to those people, there's
16 no way in the world they could justify a water right.
17 It just doesn't seem to me --

18 THE SPECIAL MASTER: That is what I wanted to
19 hear you say. Now, giving up a massive amount of
20 area, A did over in B's area, A got back about four-
21 fifths of it, three-fourths of it.

22 THE WITNESS: Of what?

23 THE SPECIAL MASTER: Of the land they gave back
24 up in 1905 over there and gave it to B because it
25 was never conveyed away by B. B was acting only as



1 a trustee for A while B owns that tract of land
2 everybody is settling on, and three-fourths of that
3 land never got settled on, only the good rich stuff
4 down by the river got settled on, so poor A got
5 back the rest of it, which just happened to have oil
6 and gas and a lot of other equities, but they got it
7 back. Let's bring all the facts in this lawsuit out.
8 This may be the best day we have had in the year,
9 year and a half of this trial. Now then, can you in
10 economic justification say that A can have its
11 reserved water right to the detriment of those owning
12 land on B's side that took their land that was one
13 time Indian land and paid for it? This wasn't
14 prior 1868, I'm not talking Manifest Destiny or
15 conquest or murder or war or savagery,, I'm talking
16 post 1868, and some degree of conscience came into
17 our relationship, not much, but some did come into
18 it after 1868.

19 So the 1905 man or his grandchildren are now
20 saying some water must go to A, he's entitled to it,
21 but does it have to be in such quantity I cannot
22 even have a degree of my rights on this land I
23 bought as a result of the Indians and the A and B,
24 rather, agreeing to sell it to me back in 1905?

25 THE WITNESS: Okay. Believe me, I'm very tempted



1 to get into this argument of discussion. I must
2 qualify something first, though, and I think that
3 the first thing I must do is put the boundaries upon
4 what I see my responsibility is in this case, and
5 that is to determine the feasibility of developing
6 irrigable lands on the Reservation. How the lawyers
7 use that analysis I think is up to them. They are
8 the legal persons that apply that, and I have to
9 first put blinders on and discuss only that. So
10 with respect to the feasibility of the developing
11 irrigable agriculture, this discussion and my
12 presentation and the arguments that I have given you
13 I feel are entirely valid.

14 Now, outside of that I have to -- I'm very tempted
15 to get into this, but I think the principal is that
16 there are some other parties involved who are
17 involved in this whole equity situation, and I
18 would repeat that putting the burden on A when --
19 well, when it is on the Indian Reservation, is not
20 equitable because there are other parties who are
21 involved in this and who might have been awarded
22 rights here and there in the ceding; act in awarding
23 land and minimal resources and all of that. I think
24 in terms of determining equity in this situation
25 that is a whole other question that I don't want to



1 answer because I haven't analyzed it.

2 THE SPECIAL MASTER: Does a determination of
3 the equitable situation put a stronger or higher
4 measure of benefit costs on a project before it
5 is certified and approved?

6 THE WITNESS: But let me go back to my --

7 THE SPECIAL MASTER: If you were the judge in
8 this case, would you go back and take all BC ratios
9 of 1.9 and less and exclude them and acreage from
10 your total? You have come up with some benefit cost
11 ratios of six and seven and eight to one on unity,
12 beautiful figures because you know those are valid,
13 but get to a project that is 1.5 with the factors
14 cranked in that you have used like the opportunity
15 cost considerations, that without them it would
16 result in something less than unity and you were
17 Special Master, wouldn't you be hard put to probably
18 knock out a good many acres of the questionable
19 margin land?

20 THE WITNESS: No, and the reason is because I
21 understand the use of opportunity cost is a valid --
22 is a valid valuation in this particular situation.
23 There is not question about it. In fact, Mr. Merrill
24 brought out and showed that the WRC Principles clearly
25 not only allowed for it, but call for the use of



1 opportunity cost. It is an accepted principle, not
2 only by the WRC, but by virtually all the economists
3 I know who would perform an analysis from the
4 perspective as I described, from the national
5 perspective. There is no question about that. I
6 would throw out only those projects that have a
7 benefit cost ratio of under one, and any benefit
8 cost ratio over one is clearly feasible.

9 THE SPECIAL MASTER: Even though you have this
10 very important equitable factor, even though you
11 use four as a discount figure you would --

12 THE WITNESS: Well, I think we are going to
13 get to four as a discount figure, and I think four
14 is on the high end of a proper discount figure to
15 use. I expect we are going to get into that.

16 (Off-the-record discussion.)
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1 THE SPECIAL MASTER: Let's come to order, please.

2 MR. MERRILL: Your Honor, I was requested off the record
3 to inform the Court the source of the quotation that I read
4 to Mr. Dornbusch earlier. This quotation is from the first
5 sentence of Mr. Justin Powell's dissenting opinion in United
6 States vs. New Mexico, 98 Supreme Court 3012. I did omit
7 part of the sentence.

8 The sentence reads in full, quote: "I agree with the
9 Court that the implied reservation doctrine should be ap-
10 plied with sensitivity to its impact upon those who have
11 received water rights under state law and to Congress'
12 general policy of deference to state water law."

13 I think that sentence indicates all nine members of
14 the court agreeing on the proposition that impacts are
15 relevant, the inquiry that's before the Court today.

16 Q (By Mr. Merrill) Mr. Dornbusch, when we were discussing
17 earlier with respect to labor costs, the concept of oppor-
18 tunity costs, I believe you said that an opportunity cost
19 which should be used in an economic analysis is the next
20 best use of a resource, such as unemployed labor; is that
21 correct?

22 A Yes, I believe that's correct.

23 Q If in quantifying the reserved right you take water away
24 from another use, is that not properly an opportunity cost

25 dornbusch - cross - merrill



1 to an economist?

2 A Well, the question here again is who owns the water
3 and --

4 Q No, the question is, is the next best use of water
5 an opportunity cost?

6 A Oh, are you asking -- you are focusing on the water
7 itself in isolation of anything else?

8 Q Yes.

9 A The problem is that the question of the next best use
10 of the water, if you allow that as to be relevant
11 in the economic analysis, which seems to be the test,
12 it just puts you back in that same dilemma that I was
13 trying to describe before, and that is that the loss
14 of those benefits may be so overwhelming as to make
15 it impossible to justify any water development project
16 using the test, and I feel that the test that we are
17 using now focuses specifically on the feasibility of
18 developing water on the Reservation and that the cost --
19 excuse me -- developing irrigated agriculture on the
20 Reservation, and that the cost of the water is fully
21 included in the development cost of that water, the
22 bringing of the water to the irrigated projects.

23 And, as you've seen in Dr. Mesghinna's and my
24 own exhibits and testimony, we have formidable costs

25 dornbusch-cross-merrill



1 for delivering that water.

2 Q Are you saying then that the next best use of the
3 water is an opportunity cost? You don't think it's
4 properly included in this inquiry? Or are you saying
5 that it's not an opportunity cost at all?

6 A Right. What we're trying to do is quantify the amount
7 of water to which there is a right which we may use
8 feasibly, and that's what we have done.

9 Q My question to you is: As an economist, is an opportunity
10 cost, as economists define that term -- I understand
11 you don't think it's necessarily relevant to this
12 inquiry, but I'm asking you, as an economist, is the
13 next best use of that water an opportunity cost?

14 A Well, in the strict sense of the next best use of a
15 resource, that would be an opportunity cost.

16 Q Mr. Dornbusch, as part of your work on the economic
17 feasibility of these areas, various irrigation projects,
18 were you supplied with information developed by HKM
19 Associates concerning the soils on the Wind River
20 Indian Reservation?

21 A Well, yes. They provided us with information on the
22 soils.

23 Q What type of soils information did you receive?

24 A Well, more specifically, the soils information that was
25 dornbusch-cross-merrill



1 of interest to me was of greater interest as it was
2 analyzed and used by Stetson Engineers.

3 In other words, if you see the process in this
4 way, that HKM developed the soils analysis, that the
5 principal issues involved in the quality of those
6 lands, not only soils, but the lands were used in the
7 analyses of Stetson Engineers, and as those analyses
8 were developed and then transferred to me, that was
9 really what I was using primarily.

10 Q What soils information did you receive directly from
11 HKM?

12 A Well, I think we were a party to all of the -- or
13 most of -- I'm not sure we got all of the information
14 they sent Stetson Engineers, but I probably received
15 copies of most if not all of the information they
16 provided Stetson Engineers with regard to soils
17 classifications and those kinds of things.

18 Q Can you tell the Court specifically what information
19 you received, whether you received photographs or
20 soils logs or land classification information?

21 A Oh, we received -- we did not receive the soils --
22 the land logs. We did not receive the maps except
23 in a general sense.

24 It's very hard for me to answer your question.

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1 There was a lot of information that came to us and
2 went to Stetson Engineers and then was transferred
3 to us, and we were a party to all of this, but I
4 suppose if I knew more specifically in what you were
5 interested, did I receive this or that, I could
6 probably answer much better.

7 Q I'm interested in specifically what information
8 concerning soils on the Reservation you received,
9 either directly from HKM or through Stetson Engineers.

10 A We received information as to the land classifications
11 in the project areas, and I believe there was a lot
12 of backup information to that, not all of which we
13 used.

14 Q As part of your own economic feasibility analysis,
15 did you use any of the soils information supplied to
16 you by HKM?

17 A Well, let me try to answer by being specific.

18 Q Okay. Well, let me ask you a more specific question
19 and maybe that will make it more simple.

20 A Good.

21 Q Did you use the soils information provided to you
22 by HKM in developing projected yields?

23 A Yes.

24 Q How did you use that information?

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1 A On the new project lands they informed us and
2 Stetson Engineers that there would be soils of
3 Classes 1, 2, 3, 4, 6 -- of the various soils
4 classifications.

5 Stetson Engineers then determined that we would
6 only focus on the project areas, which included soils
7 of Classes 1 through 3.

8 Now, there was some -- it's not possible to
9 eliminate entirely everything else, but we only
10 included project areas which included small portions
11 of other soils, but primarily the project areas
12 consist of soils Classes 1 through 3.

13 Q Are you saying that you used that information somehow
14 in developing your yield projections?

15 A Okay. Yes. The yields which we show and which are
16 primarily derived from Agee's yields from the Midvale
17 Irrigation District are for crops which in that
18 district are grown on soils 1 through 4, soils Class
19 1 through 4.

20 We looked at the percentages of soil classifications
21 in the Midvale Irrigation District and compared it to
22 the soil classifications in our new project lands and
23 observed that for the most part our soils were better
24 and, therefore, that we could expect at least the yields

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that were being obtained in the Midvale Irrigation
District.

* * * * *

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1 Q (By Mr. Merrill) Mr. Dornbusch, is it true that Dr.
2 Mesghinna developed detailed information concerning
3 evapotranspiration as a function of climatic zone and
4 elevation in the project areas on the reservation?

5 MR. ECHOHAWK: Objection, Your Honor, beyond the
6 scope of direct, and he's asked about what Dr. Mesghinna
7 did.

8 THE SPECIAL MASTER: Let me hear the question
9 again.

10 (Whereupon, the reporter read
11 (back, "Q Mr. Dornbusch, is
12 (it true that Dr. Mesghinna
13 (developed detailed information
14 (concerning evapotranspiration
15 (as a function of climatic zone
16 (and elevation in the project
17 (areas on the reservation?"

18 THE SPECIAL MASTER: As the function of a climatic
19 zone? Do you want to try that question again? The charts
20 on evapotranspiration dealt with amounts of water consumed
21 in growing a plant and lost in the root zone and a lot of
22 other things, but -- it was nothing to do with climatic
23 zones. If you try the question again, maybe the objection
24 might not be raised, let's hope.

25 MR. MERRILL: It will be the same question, Your Honor,
and I'm sure Mr. Echohawk will object, and I simply point
out to the Court the question following -- it was an

dornbusch - cross - merrill



1 introductory question -- is whether Mr. Dornbusch used
2 that information as part of his analysis.

3 THE SPECIAL MASTER: Will you ask the first question?

4 MR. MERRILL: Certainly, Your Honor.

5 Q (By Mr. Merrill) Mr. Dornbusch, isn't it true that Dr.
6 Mesghinna developed detailed information concerning
7 evapotranspiration as a function of climatic zone and
8 elevation in the project areas on the reservation?

9 MR. ECHOHAWK: Same objection, Your Honor. This
10 witness isn't competent to testify what Dr. Mesghinna
11 might have done, and he certainly had a chance to cross-
12 examine Mr. Mesghinna as to what he did.

13 THE SPECIAL MASTER: I would overrule the objection.
14 that seeks to say this witness cannot answer whether or
15 not he is familiar with Dr. Mesghinna's reports and what
16 they contain. I think all of them were working too close
17 in concert coming up with their conclusions that that
18 would be permitted. I am confused with the fact his table
19 on evapotranspiration dealt with evapotranspiration, and
20 when you ask it exactly the second time and crank in the latter
21 thing as to climatic zones, I'm confused, but perhaps the
22 witness won't be as confused as I am right now, so go
23 ahead and ask the question, and you may answer if you can.

24 MR. MERRILL: Your Honor, I could substitute the words,
25 "consumptive use of water" in place of the word.
dornbusch - cross - merrill



1 "evapotranspiration".

2 THE SPECIAL MASTER: You may answer the question.

3 THE WITNESS: I believe that he did, but I can't
4 answer as to the detail or how he might have presented
5 the information.

6 Q. (By Mr. Merrill) At any time, in your feasibility
7 analysis, did you consider the consumptive use of water
8 as it relates to the economic benefits associated with a
9 particular tract of land?

10 A. No, I don't believe I did.

11 Q. Mr. Dornbusch, isn't it true that each of the tracts of
12 land in the project areas will have different yields,
13 depending on the elevation and soil types in that particu-
14 lar tract?

15 A. Well, I clearly showed that I'm expecting to have different
16 yields with respect to elevation according to the two zones.

17 Q. My question is, between two particular tracts, isn't it
18 true that each particular tract will have its own unique
19 combination of soils and climatic properties that give it
20 an individual yield?

21 A. The answer is yes and no, okay? To the degree some soils
22 are better than others, yes, I think some soils might be
23 expected to have higher yields than others. But on the
24 other hand, there are some deficiencies in the soils that

25 dornbusch - cross - merrill



1 are being corrected with sprinkler irrigation frequency,
2 the amount of water applied with each irrigation, problems
3 with depth to barrier that will be alleviated with drainage,
4 soil amendments, those sorts of things. So to some degree,
5 the answer is yes, we will expect different yields with
6 the different soil types, but to the other degree, it is
7 not just the land and soils themselves that determine the
8 yields, but those lands coupled with the kind of remedies
9 that Dr. Mesghinna applies and which have been worked in
10 that will determine this.

11 Q. Isn't it also true that yields will vary from tract to
12 tract, depending on the elevation of a particular tract?

13 A. Yes, I think I have shown that in my tables.

14 Q. Isn't it true that the costs of irrigating a particular
15 tract will also vary, depending on its location, elevation,
16 soils type and other factors?

17 A. Yes, I believe they will to some degree.

18 Q. As part of your feasibility analysis for the five future
19 areas and the Type VIII lands, did you analyze the
20 economic feasibility of each individual field taking into
21 account the particular soils, elevation and other physical
22 characteristics?

23 A. No, and that is not really necessary, in my opinion.

24 Q. Isn't it true that you developed averages for the fields
25 dornbusch - cross - merrill



1 as groups and --

2 THE SPECIAL MASTER: Isn't it true he developed --

3 MR. MERRILL: Averages for the fields as groups
4 and evaluated the feasibility of an entire group of
5 fields at one time?

6 THE WITNESS: That's correct.

7 Q (By Mr. Merrill) Mr. Dornbusch, isn't it possible that
8 had you done a field-by-field analysis taking into account
9 the unique physical characteristics of each field as they
10 affect the returns and the costs for that field, that cer-
11 tain fields within the projects which you overall say are
12 feasible, would not be feasible?

13 MR. ECHOHAWK: Objection, Your Honor, calls for
14 speculation.

15 THE SPECIAL MASTER: Read the question, will you,
16 please?

17 (Whereupon, the reporter read
18 (back, "Q Mr. Dornbusch, isn't
19 (it possible that had you done
20 (a field-by-field analysis taking
21 (into account the unique physical
22 (characteristics of each field as
(they affect the returns and
(costs for that field, that cer-
(tain fields within the projects
(which you overall say are
(feasible, would not be feasible?"

23 THE SPECIAL MASTER: He may answer that. I think
24 that can reasonably be answered.

25 dornbusch - cross - merrill



1 THE WITNESS: No, I don't believe that if we had
2 done a field-by-field analysis, that you would have any
3 fields that we show as feasible being shown as infeasible.

4 Q (By Mr. Merrill) How do you know that no fields would be
5 infeasible if you haven't done a tract-by-tract analysis?

6 MR. ECHOHAWK: Objection, Your Honor. The question
7 has already been answered.

8 THE SPECIAL MASTER: I would sustain that objection,
9 but again, I think the answer speaks for itself, and maybe
10 I should permit it. And I think he has already given his
11 basis, his professional judgment of the area-wide
12 determination.

13 MR. MERRILL: Your Honor, this line of questioning
14 focuses on the aggregate nature of the analysis as opposed
15 to the individual nature of the analysis.

16 MR. ECHOHAWK: Your Honor, the State can put on their
17 case when the time comes.

18 THE SPECIAL MASTER: I appreciate that, and I am
19 going to sustain the objection, Mr. Merrill. You have
20 been batting about 99 percent here all afternoon. I might
21 as well rule on a few.

22 Q (By Mr. Merrill) Mr. Dornbusch, for purposes of this
23 question, I would like you to assume that within the
24 North Crowheart Unit there is a field which, if analyzed

25 dornbusch - cross - merrill



1 individually, would not prove to be feasible. Assume that
2 for purposes of this question only.

3 A. I'll try.

4 Q. Is it true that the net economic benefits to the Indian
5 Tribes from the North Crowheart Project would be greater
6 if the unfeasible field were deleted from that project?

7 A. Okay, you are asking me that if there were a field whose
8 benefits were less than its costs, would the net benefits,
9 that's I assume you mean the benefits minus the costs --

10 Q. Yes.

11 A. -- and not the net benefits without regard to the costs?
12 Let's just say on an individual tract whose benefit-cost
13 ratio for that particular tract is less than one. That is
14 the hypothetical that you assume. And the reason that I
15 need to define this is because the way we have done the
16 analysis and expressed net benefits is that we have
17 reached a term -- an evaluation of net benefits which we
18 divided then by the costs, all right?

19 Q. I understand.

20 A. Okay. Now, if you take out a field that has some
21 contribution to the net benefits, you decrease the net
22 benefits, you don't increase them. Even if there is a
23 benefit of one dollar to that field, by taking it out,
24 you lose that dollar.

25 dornbusch - cross - merrill



1 Q My question is, if for that particular field the net
2 benefits are less than the costs --

3 A Yes.

4 Q -- would it not increase the net over-all benefits to
5 the Tribes to delete that field from the overall project?

6 MR. ECHOHAWK: Asked and answered, Your Honor.

7 MR. MERRILL: It has not been answered, Your Honor.
8 We have been trying to define the focus of the question.

9 THE SPECIAL MASTER: He may answer.

10 THE WITNESS: Okay. Again, if you use our term of
11 net benefits before you divide by the costs, by deleting
12 that field, you only decrease the net benefits.

13 Q (By Mr. Merrill) Do you not also decrease the costs?

14 A You also decrease the costs, that's correct.

15 Q And if you decrease the costs by a greater amount then you
16 decrease the benefits, isn't the overall feasibility of
17 the project and the net benefits to the Tribes increased?

18 A Okay, I'm only trying to make -- get my terms clear
19 because the way we use net benefits in our analysis does
20 not recognize the cost of the development of the system,
21 okay? Now, if you mean the total net benefits minus the
22 costs, if that's what you mean by net benefits, then yes,
23 by deleting that field if you've assumed that the
24 benefit-cost ratio is less than one, it would decrease

25 dornbusch - cross - merrill



1 the net benefits defining the net benefits less total
2 cost.

3 Q. Okay.

4 A. But I must point out that is not the case, it is just an
5 assumption.

6 Q. Right. The question was posed to you as a hypothetical
7 and not as the truth.

8 Isn't it true that if there are such fields within
9 the North Crowheart Unit, or any other unit, that you
10 would not know about them since you didn't do a field-by-
11 field analysis?

12 A. Not really. The reason I answered that question by
13 saying that is that we are talking about large development
14 projects whose principal costs are involved in the delivery
15 of the water to those projects. If you look at the cost
16 system that was developed by Dr. Mesghinna and then used
17 by us, adjusted by us, you will see the bulk of the cost
18 in delivering that water is going to be incurred whether
19 you remove that small field or not. Now, by removing that
20 small field, you still are to incur those costs. You don't
21 save anything on most of those costs, as I'm pointing out,
22 but you lose the benefits of that field. What I'm saying
23 is in marginal terms, which means that taking out that
24 acre or those two acres you may lose more benefits than

25 dornbusch - cross - merrill



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costs that you save, and in those large project areas,
that is exactly the case.

* * * * *



1 Q (By Mr. Merrill) Mr. Dornbusch, isn't it true that the
2 approach of using average yields, average costs, for
3 all lands within a given project has the effect of maxi-
4 mizing the consumption of water rather than the net eco-
5 nomic benefits to the Indian tribes?

6 MR. ECHOHAWK: Objection, Your Honor.

7 MR. ROGERS: Objection.

8 THE SPECIAL MASTER: Maximizing the consumption of
9 water rather than increasing the net benefits to the
10 Indians?

11 MR. MERRILL: Than maximizing the net benefits, Your
12 Honor.

13 THE SPECIAL MASTER: State your objection, please.
14 Mr. Rogers, first.

15 MR. ROGERS: I object to the whole line of questioning
16 now, Your Honor. I now perceive Mr. Merrill is persisting
17 in it, but it is truly based on an irrelevancy to the
18 facts of the development of various water projects in the
19 West in general. Obviously there are always going to be in
20 every year: some yields that are better than others.

21 That has never stopped the government or anyone else,
22 farmers, from developing their own private land or anything
23 else for not bringing those lands into production.

24 It's a fruitless line of inquiry that's taking up the
25 dornbusch cross - merrill



1 Court's time.

2 The witness has testified he and all the others that
3 have been before him have testified that these are -- the
4 final conclusion is that these are feasible acres based on
5 a realistic approach and focusing into it on a square-by-
6 square basis is irrelevant to the history of the Nation's
7 projects that have been developed and to the purposes of
8 this case.

9 THE SPECIAL MASTER: Mr. Merrill, I'm going to sustain
10 without even listening to Mr. Echohawk because I believe
11 that the acreage would be so deficient -- the acreages
12 that would be so deficient, which is what you are seeking
13 and probing into with your questions have been eliminated
14 as to the arable base or irrigable base before the economic
15 tests were put to it, and that there had to be justification
16 for the inclusion of certain areas because to not have in-
17 cluded them would have been more of a cost or loss than to
18 leave it the way it is now, and that those that would have
19 diminished the net values were indeed diminished or excluded
20 before these packages were put together.

21 Do I make myself clear?

22 MR. MERRILL: Yes, you do, Your Honor. I would simply
23 point out --

24 THE SPECIAL MASTER: There may be an illogical clarity
25 to it and an improper way, but nevertheless --



1 MR. MERRILL: It's clear to me, and I understand the
2 ruling, but I would point out that with respect to the
3 Type VII lands that the United States' experts and Mr.
4 Dornbusch did do a tract-by-tract analysis, so the Court
5 is confronted now with two different means of feasibility
6 analysis used to develop different types of land depending
7 on the status of that land.

8 THE SPECIAL MASTER: I have the Mesghinna Type VIII
9 before me, and I have his Type VII, too. Someplace, but
10 I don't recall it being -- I recall the first foundation
11 for this being area for area and topographic feature for
12 topographic feature and then the area was made up into
13 different areas depending upon drainage, whether sprinkler,
14 gravity, and so on.

15 If you show me specifically where field-by-field or
16 plot-by-plot it went very much further than those questions
17 I permitted, I'll reconsider the ruling.

18 MR. ECHOHAWK: Your Honor --

19 THE SPECIAL MASTER: You know, Mr. White took great
20 time to go with great detail into each plot and into each
21 tract and into each field, and we even had two words mean-
22 ing the same thing, field, and what?

23 MR. ECHOHAWK: Farm.

24 THE SPECIAL MASTER: Not farm, field and maybe a tract,
25 maybe it was, or field and a plot dealing with drainage --



1 a great deal, but I don't believe -- I believe that the
2 ruling is appropriate regarding economic justification.

3 MR. MERRILL: Your Honor, I do not have the exhibit
4 with me. I would point out to the Court that during my
5 brief cross-examination of Mr. Stetson last Wednesday
6 afternoon I asked him whether Stetson Engineers had pre-
7 pared and supplied to Mr. Dornbusch's firm a tract-by-
8 tract evaluation of the system costs and on-farm costs
9 and returns of the Type VII lands on a field-by-field
10 basis.

11 Mr. Stetson indicated that he had prepared such a
12 document and subsequently produced it, and it was about
13 120 pages long.

14 I believe Mr. White marked it the following day and
15 cross-examined on that document when I was not here, so
16 I don't recall the exhibit number.

17 THE SPECIAL MASTER: I remember that now.

18 MR. MERRILL: That was done with respect to the
19 Type VII lands, and the witness has just testified that
20 a tract-by-tract approach was not used with respect to
21 the tract VIII lands and with respect to the future lands.

22 I'm simply trying to flush out the type of economic
23 analysis used --

24 THE SPECIAL MASTER: Mr. Stetson, as an engineer, applied
25 that plot-by-plot test to his work, but the economist



1 accepts what Stetson hands him, and I don't believe this
2 witness -- he did not go plot by plot, and I think that
3 ought to be adequate.

4 MR. ECHOHAWK: I think Mr. Merrill's point can be
5 addressed by simply comparing future projects -- North
6 Crowheart, say, for instance -- and all the various small
7 farms or fields incorporated within that large project as
8 compared to the, say, Muddy Creek drainage where there
9 are very isolated pieces where we are going through and
10 picking those back up, and he's simply talking about
11 apples and oranges. He's talking about large projects
12 with many connected fields, served by one main system
13 as opposed to very scattered Type VIIs, and there's ab-
14 solutely no relevance at all.

15 Again, this is a simple waste of time. We have been
16 going through the future lands now for two days. We were
17 going to have one day or a half day of cross-examination,
18 and again it's simply a waste of time.

19 MR. ROGERS: Just to amplify what Mr. Echohawk said,
20 we are dealing with a different situation because Type
21 VII lands are idle lands. They have to be dealt with in
22 a different way than total areas that have never been
23 developed.

24 THE SPECIAL MASTER: Well, I have ruled, and I'll
25 sustain the objection.



1 MR. MERRILL: Your Honor, may I make an offer of
2 proof?

3 THE SPECIAL MASTER: Surely.

4 MR. MERRILL: The State of Wyoming offers proof that,
5 if allowed to question Mr. Dornbusch further along this
6 line of questioning, Mr. Dornbusch would testify that the
7 approach of using average yields, average returns, and
8 average costs for the irrigation projects under considera-
9 tion here as opposed to individual returns and costs assoc-
10 iated with each tract, that as an economic analysis matter,
11 this type of analysis has the effect of maximizing the
12 consumption of water rather than maximizing net benefits.

13 I would further inquire of Mr. Dornbusch whether water
14 consumption would be lower and net benefits would be higher
15 if marginally productive lands were withdrawn from the
16 projects, and I would offer to prove that Mr. --

17 THE SPECIAL MASTER: I appreciate your offer of proof,
18 Mr. Merrill, but are those questions for this witness, or
19 are they questions for Dr. Mesghinna and for Tom Stetson?

20 MR. MERRILL: Well, Your Honor, these questions add-
21 ress matters of economic theory and economic analysis, and
22 that's the field in which Mr. Dornbusch is qualified.

23 THE SPECIAL MASTER: The reason is because they either
24 don't have the barriers too close to the surface or the
25 hydraulic conductivity or the soils aren't of proper value



1 or they need some amendment, and that has nothing to do
2 with this man. He accepts those figures and he cranks
3 them into the total.

4 MR. MERRILL: I agree that's the case, but I'm saying
5 that this witness would testify that as a matter of theory,
6 given those particular costs for Mr. Stetson, Dr. Mes-
7 ghinna, and those people, that if there were such tracts,
8 that the benefits were less than the costs that the net
9 benefits would be higher and water consumption would be
10 lower if those tracts were not considered.

11 THE SPECIAL MASTER: I really believe my offer is
12 proper now. I'm convinced it is -- that I believe my
13 ruling is proper now and I'm convinced it is because
14 you're really -- off the record.

15 (Discussion off the record.)

16 MR. ECHOHAWK: I would point out that with regard
17 to Mr. Merrill's offer of proof that he's barking up
18 the wrong tree.

19 As you pointed out, Mr. Dornbusch doesn't have any-
20 thing to do with consumption of water, that the questions
21 are properly directed towards Dr. Mesghinna and Mr. Stet-
22 son.

23 THE SPECIAL MASTER: Well, go ahead with the offer
24 of proof, Mr. Merrill.

25 MR. MERRILL: Thank you, Your Honor.



1 If allowed to question the witness further, the
2 State of Wyoming would prove that Mr. Dornbusch does not
3 know whether the irrigation projects that are being pro-
4 posed in this case maximize water consumption or net
5 benefits to the Indian tribes because with respect to
6 those future projects and Type VIII lands he used average
7 returns and average costs.

8 We would further offer to prove, if allowed to
9 question Mr. Dornbusch, that another potential objective
10 of an economic feasibility analysis would be to maximize
11 the net benefits rather than maximizing water consumption.

12 And that completes my offer of proof, Your Honor.

13 THE SPECIAL MASTER: All right. Fine.

14 Q (By Mr. Merrill) Mr. Dornbusch, are you familiar with
15 an account within the Water Resource Council Principles
16 and Standards known as the OSE account?

17 A OSE?

18 Q Other social effects?

19 A Okay. That's right. Yes, I am.

20 Q Did you use such an account in your feasibility analysis?

21 A I did not.

22 Q Are you familiar with an account within the Water Resource
23 Council Principles and Standards known as the environmental
24 quality account?

25 A Yes, I am.

dornbusch - cross - merrill



1 Q Did you develop and use such an account as part of your
2 analysis?

3 A I did not.

4 Q Are you familiar with the fourth account in the principles
5 and standards known as the national economic development
6 account?

7 A Yes, I am.

8 Q Did you use such an account in your analysis?

9 A Yes, I did.

10 Q Would you please explain how?

11 A Well, I think virtually all of my testimony explains how.

12 Q What I have done, as I said right at the beginning
13 of my direct testimony, was to perform an economic analysis
14 from the national perspective. That is precisely what the
15 national economic development account does, and that's
16 what I've done.

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dornbusch - cross - merrill



- 1 Q (By Mr. Merrill) Isn't it true that as part of your
2 analysis you have ignored several items which are,
3 in fact, appropriate to consider in the National
4 Economic Development Account?
- 5 A I have included all of the factors that are appropriate
6 to consider in this development analysis. And if you
7 would like to deal with what I feel I have left out,
8 I would be happy to deal with that.
- 9 Q Would you please take out your copy of Exhibit ED-6?
- 10 A Okay.
- 11 Q Got it?
- 12 A I do.
- 13 MR. ECHOHAWK: Mr. Merrill, for the record, what
14 is ED-6?
- 15 MR. MERRILL: It is part of the Water Resources
16 Council's Principles and Standards.
- 17 THE SPECIAL MASTER: What page, Mr. Merrill?
- 18 MR. MERRILL: Page 72971, Your Honor.
- 19 Q Found it?
- 20 A I'm here -- I'm there.
- 21 Q Sometimes I wonder myself.
22 I direct your attention to section 713.2003.
- 23 A All right.
- 24 Q And particularly the second and third sentences under
25 dornbusch-cross-merrill



1 subsection A.

2 A Okay.

3 Q Would you describe how you used the term "Resource
4 use" in your analysis?

5 A Well, first of all, I would like to take the opportunity
6 to point out to the Special Master that here again
7 we have that opportunity cost notion, and it's being
8 used again as the -- as a concept that should be used
9 in evaluating national economic development costs,
10 and it says that the entity costs should be the
11 opportunity cost of resource use, and that is precisely
12 what I did. I think I described that when I use a
13 resource I have attempted and I have succeeded in
14 costing it at its opportunity cost.

15 Q Does your analysis fully recognize scarcity as a
16 component of value?

17 A Well, yes. I have evaluated the costs at their
18 opportunity cost or their full cost. That is as I
19 have described.

20 Q In considering scarcity as a component of value,
21 what value did you ascribe to the opportunity cost
22 for water itself?

23 MR. ECHOHAWK: Objection, Your Honor, asked and
24 answered.

25 dornbusch-cross-merrill



1 THE SPECIAL MASTER: The objection is overruled.
2 You may answer.

3 THE WITNESS: Well, in this situation, as I
4 believe I said before, we have fully costed the cost
5 involved in delivering the water to the Reservation
6 as laid out by Dr. Mesghinna and used and applied by
7 us.

8 Q (By Mr. Merrill) My question went to the water itself
9 and not the costs.

10 THE SPECIAL MASTER: Let him finish, though. I
11 think he was developing toward the finishing of it.

12 THE WITNESS: Yes. And in this situation where
13 our mission is to define a water right, we are trying
14 to quantify the amount of water, I believe I have
15 accounted for all of the costs that should be properly
16 recognized in that, and I think we went through a
17 very long discussion over the issue of scarcity and
18 how the cost burden might fall to various people who
19 might be involved in alleviating that scarcity and
20 the equities involved, and I think that -- what I would
21 like to do is point back to the discussion we had
22 prior to that last break (witness indicating).

23 THE SPECIAL MASTER: Isn't this the case, if
24 I may try to summarize this, gentlemen and Mr. Dornbusch,
25 dornbusch-cross-merrill



1 your mission here was not to equalize equities of
2 water -- of the users of water in the Big Horn
3 Division No. 3 of Wyoming, your mission here was
4 to fulfill a professional obligation to your
5 employers, the Reservation, the Tribes, and the
6 United States, to establish some basis for a water
7 right?

8 THE WITNESS: According to economic feasibility
9 of development of that water, that's right.

10 THE SPECIAL MASTER: And where you find there is
11 a conflict there, you naturally come down on the
12 side that employed you?

13 A I wouldn't go quite that far. I think what I have
14 done I would do no matter who employed me if they
15 asked me to address the question of economic
16 feasibility.

17 THE SPECIAL MASTER: I appreciate your answer.
18 Go ahead, Mr. Merrill.

19 MR. MERRILL: Thank you, Your Honor.

20 Q (By Mr. Merrill) Would you please turn to the following
21 page in Exhibit ED-6, 72972?

22 A Okay.

23 Q And I direct your attention to the second column,
24 section 713.2009.

25 dornbusch-cross-merrill



1 A All right.

2 Q The discussion of cost evaluation and project
3 outlays. I direct your attention specifically to
4 the second sentence beginning --

5 A Which subsection are you talking about?

6 Q 713.2009, the paragraph immediately under that before
7 you get through subsection A.

8 A Oh.

9 THE SPECIAL MASTER: Is this beginning at the
10 top of the page, column two?

11 MR. MERRILL: Yes, it does, Your Honor.

12 THE WITNESS: Let me read that paragraph first.

13 MR. MERRILL: Okay.

14 (Brief pause.)

15 THE WITNESS: All right.

16 Q (By Mr. Merrill) I direct your attention specifically
17 to the sentence that begins, "Those costs include . . . "

18 A All right.

19 Q Okay? I assume you are going to tell me, first, you
20 didn't include any cost for water rights in your
21 analysis? Let's get that one out of the way. Is
22 that true?

23 A Cost for water rights, what do you mean by cost for
24 water rights?

25 dornbusch-cross-merrill



1 Q Cost of acquiring any necessary water rights to
2 complete a project.

3 A That's what we are doing here, isn't it?

4 THE SPECIAL MASTER: That is a good question,
5 Mr. Merrill. Are the costs of this lawsuit that are
6 borne by the Tribes supposed to be put in here to
7 justify the project?

8 MR. MERRILL: Your Honor, I was going to ask that
9 of the Witness.

10 THE SPECIAL MASTER: Is the cost of the United
11 States borne by the project? What does it mean
12 here when it says here that the costs include historical
13 and archeological savage costs including land, water
14 and mineral rights costs?

15 MR. MERRILL: Your Honor, I was simply going to
16 ask the Witness if he has these costs included in his
17 analysis.

18 THE SPECIAL MASTER: Okay, you may ask him.

19 THE WITNESS: Okay. Specifically you can see
20 that the costs that they call for in terms of
21 construction costs, construction contingency costs,
22 plan and design, that's all within my budget, those
23 costs are covered. Specifically the other costs I
24 believe are either not applicable or don't exist.

25 dornbusch-cross-merrill



1 Q (By Mr. Merrill) Let's start through them and you
2 can discuss each one specifically. How about
3 administrative services costs?

4 A Such as?

5 Q Those normally associated with the funding and
6 construction of a project.

7 A Seems to me that if the water right is awarded to
8 the Indians, I have accounted for all of the costs
9 of developing that water in my feasibility analysis.
10 If you want to -- if you are suggesting that we should
11 include the cost of this trial over a question of
12 the water right, I don't feel that is an appropriate
13 cause. It is just outside of the issue of costs
14 of developing that project.

15 THE SPECIAL MASTER: Fish and wildlife habitat
16 mitigation costs, are they excluded, included, which?

17 THE WITNESS: There are not problems with that,
18 Your Honor.

19 Q (By Mr. Merrill) Mr. Dornbusch, isn't it true you
20 didn't perform an environmental equality analysis
21 as part of your work?

22 A I looked at the issue and I think that the principal
23 issue in environmental quality is not relevant because,
24 as I said, we are doing an economic feasibility

25 dornbusch-cross-merrill



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analysis. Within the Reservation itself we address the question of the fact of when irrigating farms, that runoff quality of the water might be so low as to have an environmental -- a negative environmental impact, and we specifically queried our engineers on this issue, and we are sure the water quality was so high to begin with and the irrigation practices were so good as to make this not a problem.

* * * * *

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1 Q. (By Mr. Merrill) Who did you speak to about water quality?

2 A. I can't recall. They were people at both Stetson
3 Engineers and HKM.

4 Q. So it's your professional opinion that there will be no
5 fish and wildlife habitat costs associated with these
6 projects?

7 A. I did not do a fish and wildlife habitat analysis. I
8 focused on feasibility of developing irrigated agriculture.

9 Q. So then you don't know whether there would be these
10 costs or not?

11 MR. ECHOHAWK: Objection, Your Honor. It's irrelevant.

12 THE SPECIAL MASTER: Well, if he doesn't know there
13 are any costs -- he may say so. If he doesn't know
14 whether there were any benefits -- it's a two-edged sword,
15 and it can nick him as well as serve his good purpose, so
16 let him go ahead with his questions.

17 A. I did not do an analysis, and I do not know the magnitude
18 of either the benefits or the costs.

19 Q. (By Mr. Merrill) How about relocation costs?

20 A. I did not evaluate relocation costs.

21 Q. Historical and archeological salvage costs?

22 A. I did not --

23 MR. ECHOHAWK: This entire line of questioning is
24 irrelevant.

25 dornbusch - cross - merrill



1 MR. MERRILL: Your Honor, he said --

2 THE SPECIAL MASTER: It may be, but a quick answer
3 will come on both of these, so I will overrule for now.
4 Archeological costs?

5 THE WITNESS: No.

6 THE SPECIAL MASTER: Land -- go ahead Mr. Merrill.

7 MR. MERRILL: Thank you, Your Honor.

8 Q (By Mr. Merrill) Land, water, and mineral rights costs?

9 THE SPECIAL MASTER: Why don't we take them one at
10 a time, if we may. Land:

11 Q (By Mr. Merrill) Let's start with land costs?

12 A. Yes.

13 Q. Those were costed at the opportunity cost for grazing
14 value, is that correct?

15 A. That's a quick summary. What I did was evaluate what the
16 next best use of the land was. The next best use of the
17 land is dry grazing, and that's how I evaluated the cost
18 of land.

19 Q. How about water rights?

20 A. I think I addressed that already.

21 Q. How about mineral rights?

22 A. Mineral rights in connection with what are you referring?

23 Q. The purchase of any mineral rights, the exercise of which
24 might be impaired by this development.

25 dornbusch - cross - merrill



1 A. It's the Tribes' reservation. They have the rights to --

2 THE SPECIAL MASTER: The answer is no; is that

3 right? All right. No.

4 MR. MERRILL: It sure makes it go faster.

5 THE SPECIAL MASTER: Did you ask about operation,
6 maintenance and replacement?

7 MR. MERRILL: No, I didn't, Your Honor. The witness
8 has already testified that --

9 THE SPECIAL MASTER: All right. Thank you.

10 MR. MERRILL: -- that he did take into consideration
11 the cost of operation, maintenance and repair.

12 THE SPECIAL MASTER: I was amused by your answering
13 regarding environmental quality, and it brought to mind
14 that if these were ever to come to fruition, whether an
15 EPA statement would either be required or not be required,
16 but I don't think it will have a bearing on our lawsuit,
17 so I will let it happily pass.

18 MR. MERRILL: I was going to ask that, Your Honor,
19 but I thought I would get an objection.

20 THE SPECIAL MASTER: It's so interesting I would like
21 to have an answer, but it doesn't belong in the lawsuit.
22 Let's take a break. We are overdue.

23 (Recess.

24 THE SPECIAL MASTER: Come to order, please.

25 dornbusch - cross - merrill



1 Okay, Mr. Merrill?

2 Q (By Mr. Merrill) Mr. Dornbusch, isn't it true that there
3 was a published Water Resources Council guideline on the
4 appropriate interest rate to use for water and land resource
5 related projects at the time you began your study of the
6 projects on the Wind River Indian Reservation?

7 MR. ECHOHAWK: Objection, Your Honor. Irrelevant.

8 THE SPECIAL MASTER: Oh, my. He may answer.

9 A. There was such a rate that was published, that's right.

10 Q (By Mr. Merrill) I hand you what's been marked for
11 identification as Exhibit ED-10. Would you please identify
12 that document?

13 A. It's a news release from the United States Water Resources
14 Council, November 1, 1979. The title is, "Discount Rate
15 Set at Seven and One-Eighth Percent."

16 Q Approximately when did you begin your analysis of these
17 projects?

18 A. Almost two years ago.

19 Q Do you know what month and what year?

20 A. I think it was June, 1979.

21 Q Do you recall your deposition in June of 1980 in San
22 Francisco?

23 A. I do.

24 Q Do you recall stating in that deposition that you began
25 dornbusch - cross - merrill



1 your analysis in January of 1980?

2 A. That I began my analysis in January of 1980?

3 Q. Yes.

4 A. Well, perhaps you should refer me to the page where I
5 said that. That was my first deposition you are talking
6 about?

7 Q. I believe so.

8 MR. MERRILL: If I could have a moment, Your Honor,
9 to check?

10 THE SPECIAL MASTER: Yes.

11 MR. ROGERS: Your Honor, is it really relevant whether
12 it's January, '80, or June, '79, when he began his analysis?
13 I mean, the analysis is continued for the entire period. It
14 obviously covers the year or dates or whatever the period
15 is that's in this news release, which shows the ephemeral
16 character of the discount rates that, incidentally, applies
17 for a few months, according to the Water Resources Council
18 anyway, but I don't think it matters whether the witness
19 began in January of 1980 or June of 1979.

20 MR. MERRILL: Your Honor, I withdraw the question.

21 THE SPECIAL MASTER: There may be a mistake or a
22 qualification or a reason for the difference.

23 MR. MERRILL: The mistake is mine. I withdraw the
24 question, and I apologize to the Court, counsel and the

25 dornbusch - cross - merrill



1 witness. I have the wrong date. He did indeed state
2 June.

3 THE SPECIAL MASTER: We appreciate your apology.
4 Now, if we could just get you to say that you would
5 finish up your cross, it would be a perfect atonement.

6 MR. MERRILL: If that what it takes, I'm going to
7 be in the doghouse.

8 Q (By Mr. Merrill) Mr. Dornbusch, isn't it true that
9 according to Exhibit ED-10, the formula used by the
10 Water Resources Council to determine the discount rate
11 would have resulted in an even higher rate than seven and
12 one-eighth percent had it not been for the one-quarter
13 percent per year limitation on the rate at which the rate
14 can change?

15 MR. ECHOHAWK: Object --

16 THE SPECIAL MASTER: It's all right.

17 A Yes, the formula is based upon the long-term cost of
18 federal borrowing, and it is allowed to increase only
19 up to a limit that is set not to exceed one-quarter percent
20 per year, as I understand it.

21

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1 Q (By Mr. Merrill) Mr. Dornbusch, I hand you what has
2 been marked for identification as Exhibit ED-11. Will
3 you please identify that document?

4 A Well, it's difficult for me to identify it except by
5 the heading at the top of the page which says "Federal
6 Register." I don't know whether it's from the
7 Federal Register or it's an excerpt from it or what.

8 Q I will state to you that it is an excerpt from the
9 Federal Register Publications, published by the
10 Upper Colorado River Water Commission.

11 MR. ECHOHAWK: Is what?

12 MR. MERRILL: An excerpt of the Federal Register
13 Publications, the excerpt of which is published by
14 the Upper Colorado River Water Commission.

15 THE SPECIAL MASTER: This is a publication
16 of the Upper Colorado River Commission based upon
17 excerpts from the Federal Register?

18 MR. MERRILL: That's correct, Your Honor.

19 MR. ROGERS: Mr. Merrill -- Your Honor, Mr.
20 Merrill represents that that is what it is, but we
21 have no way of knowing.

22 THE SPECIAL MASTER: Do you have a copy?

23 MR. ROGERS: I have a copy.

24 MR. ECHOHAWK: Yes, Your Honor, may we see the
25 dornbusch-cross-merrill



1 original copy before this goes any further?

2 MR. MERRILL: The original of the exhibit is
3 there.

4 MR. ECHOHAWK: No, I'm not talking about the
5 exhibit, I'm talking about the entire document,
6 this Colorado Water Resources Board.

7 MR. MERRILL: Your Honor, I don't have the
8 original document.

9 THE SPECIAL MASTER: Is it a looseleaf document?

10 MR. MERRILL: No, Your Honor, it was punched
11 when --

12 THE SPECIAL MASTER: Is it a newsletter?

13 MR. MERRILL: Yes, it is a periodic newsletter
14 issued by the Commission, and it has punch marks on
15 it because I punched it and put it in my own notebook.
16 If the United States or Tribes have serious doubts
17 as to the authenticity of the exhibit and document
18 concerning discount rates, I will offer to use the
19 exhibit today on the condition I substitute the
20 original Federal Register publication at a later time.

21 THE SPECIAL MASTER: You may not need to do that.
22 Let me ask the United States Counsel, is this Water
23 Resources Council excerpt dated October 17, 1980 and
24 signed by Richard Vannoy from '45 Federal Register of
25 dornbusch-cross-merrill



1 October 22, 1960, what is it from, what date of the
2 Register?

3 MR. ROGERS: Your Honor, that is the problem.
4 I can't answer that, I don't know. I mean, I assume,
5 Your Honor, it refers to a notice that apparently
6 appears in -- that may appear in the Federal Register,
7 but if it does, it would appear it is dated Cotober 17,
8 1980. I would assume we ought to be able to see the
9 original from the Federal Register itself. We might
10 be able to stipulate on that.

11 MR. ECHOHAWK: Also, Your Honor, the document
12 in here appears to be edited. If we could have the
13 original document we would certainly probably clear
14 up the problems.

15 THE SPECIAL MASTER: Will you try to find the
16 original and substitute for this if it is admitted?

17 MR. MERRILL: Yes, Your Honor, I will.

18 THE SPECIAL MASTER: Is that agreeable,
19 gentlemen?

20 MR. ECHOHAWK: We are talking about the original
21 Federal Register?

22 THE SPECIAL MASTER: Yeah, that's what we will
23 attempt to find.

24 MR. MERRILL: I will supply it to the Court and
25 dornbusch-cross-merrill



1 Counsel, Your Honor.

2 MR. ROGERS: Your Honor, I can't agree on the
3 basis of this document for the purposes of questioning
4 at this time. It seems we should have the document
5 here to do that.

6 MR. ECHOHAWK: The proper document, then the
7 questions could be asked at that time.

8 THE SPECIAL MASTER: Well, I'm totally confused,
9 Mr. Merrill, because the fourth entry on this page
10 says "October 22, 1960." Is that a typographical
11 blunder?

12 MR. MERRILL: Yes, it is, Your Honor, because
13 Volume 45 of the Federal Register is 1980.

14 MR. ROGERS: Your Honor, all the more reason
15 to have the original document here.

16 THE SPECIAL MASTER: In the interest of
17 expediting this lawsuit, and even though I recognize
18 it is not the ideal practice, I'm going to allow
19 this into evidence if it is offered over your
20 objections, gentlemen. I presume that there will
21 be supplied to you a copy of the Federal Register
22 for October 22, 1980, containing this material.

23 Mr. Merrill, do I have your word that it will be?

24 MR. MERRILL: Absolutely, Your Honor, it will be.

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1 MR. ROGERS: Your Honor, may I recite to you
2 a one-moment story --

3 THE SPECIAL MASTER: All right.

4 MR. ROGERS:--to point out some doubt even about
5 what is contained if we were shown the actual page
6 itself on the Federal Register?

7 Just in the last month or six weeks there
8 appeared in the Federal Register another notice filed
9 by the Superintendent of the Wind River Agency
10 concerning the increase in O and M charges on the
11 Wind River Indian Project for the coming irrigation
12 season, and in it it referred to the increase going
13 to I believe it was \$1.10 per acre, when what he
14 actually intended was \$6.10 per acre. It took I
15 think five or six weeks before that error was even
16 spotted and called to his attention. So we are
17 talking about numbers here that may or may not be
18 in the Federal Register, and certainly isn't evidence
19 from this that's an accurate assumption to make,
20 and even if they are in the Register, it may not
21 be accurate.

22 MR. ECHOHAWK: Your Honor, I would further
23 point out that the four items at the top of the
24 page starting with "Federal Register, October 14, 1968,"
25 appear to be someone else's determination of what



1 is in the Federal Register. If Mr. Merrill wants
2 to talk about those dates, perhaps he can also
3 supply us October 14, 15, 22nd, as well as the 17th.

4 THE SPECIAL MASTER: Well, those three -- the
5 three top items are obviously excerpts, and the
6 boil down is done by the Upper Colorado River Commission,
7 publishers of this. But they felt that this is so
8 important that they used a little Latin in letting us
9 know they do it verbatim, and instead say in hanc verba,
10 which means throwing at you word for word, I hope.

11 I think I will let it go in, gentlemen, and hope
12 you won't be too unhappy with the ruling. The
13 purpose --

14 MR. MERRILL: Your Honor, perhaps I can cure
15 the objections, notwithstanding the fact you have
16 ruled, by proving the discount rate another way. I
17 do not have copies of this document, I will supply
18 them to Counsel at the end of today's session.

19 Q (By Mr. Merrill) Mr. Dornbusch, I hand you a document
20 entitled U.S. Water Resource Council Reference Handbook,
21 fiscal year 1981. Do you recognize that document?

22 A It looks to be the same type of document that I have
23 for January, 1980.

24 Q Okay. I direct your attention to Page 13 of that
25 dornbusch-cross-merrill



1 document. Do you see on Page 13 a chart showing
2 fiscal years and the discount rate promulgated
3 by the Water Resources Council, in effect, for that
4 fiscal year?

5 A Yes, I do.

6 Q Will you please tell the Court what the discount rate
7 according to that document is for fiscal year 1981?

8 A 7.375 percent.

9 Q Is that the same as seven and three-eighths percent?

10 A Yes.

11 MR. ECHOHAWK: No.

12 MR. ROGERS: No, not according to my mathematics,
13 Your Honor.

14 THE SPECIAL MASTER: Three times twelve and a half,
15 I think you get seven and three-eighths. Well, that's
16 what this purported 11 sought to do, didn't it, Mr.
17 Merrill, so we can let you have it back?

18 MR. MERRILL: Yes. Your Honor, I would like the
19 record to reflect I'm showing Counsel for the United
20 States and Tribes the document to which the Witness
21 just referred.

22 (Brief pause.)

23 Q (By Mr. Merrill) Are we in fiscal year 1981, Mr.
24 Dornbusch?

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1 A Yes, we are.

2 MR. ECHOHAWK: Mr. Merrill, there's no authority
3 shown for the 1981. It says "Discount rate," but
4 no authorities.

5 Q (By Mr. Merrill) According to --

6 MR. ECHOHAWK: Objection, Your Honor, there is
7 no foundation.

8 MR. MERRILL: Your Honor, this must be awfully
9 important.

10 THE SPECIAL MASTER: Just a minute. Objection
11 to what?

12 MR. ECHOHAWK: Seven and three-eighths. He showed
13 him a document that had a 1981 figure in there, and
14 the document itself shows the authority for various
15 years up to 1980, has no authority for the 1981 figure.

16 MR. MERRILL: Your Honor, I'm going to show you
17 the document that everyone seems to be arguing about.

18 THE SPECIAL MASTER: I would like to see it if
19 you got it. It might be good to see it to rule on
20 it.

21 MR. MERRILL: I'm handing you a copy of the
22 Water Resources Council Handbook for fiscal year 1981.
23 In the left-hand column of that document on Page 13
24 you will note there is a column for fiscal years.

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1 You will note across the top are a number of
2 authorities, including Water Resource Council 1968
3 Regulations, Principles and Standards; Water Resource
4 Development Administration, 1974; Water Resource
5 Council 1974 Notices, and that the discount rate
6 shown opposite of 1981 is 7.375, and it is shown
7 under the 1974 Water Resource Council Regulations.

8 MR. ECHOHAWK: I would just --

9 MR. MERRILL: It is beyond me how Mr. Echohawk
10 can argue there is not foundation for a document
11 that is issued by the Water Resource Council itself.

12 MR. ECHOHAWK: I'm just pointing out, Your Honor,
13 the heading on the paper says authority up through
14 1980.

15 THE SPECIAL MASTER: Discount rates and their
16 authorities, 1957 through 1980, and the authority
17 for the 1981 figure that Mr. Merrill quotes is the
18 Water Resources Council. I'm going to admit the
19 answer, and it will stand. However, neither of those
20 two documents -- I'll return both of those documents
21 to you, Mr. Merrill.

22 MR. MERRILL: Well, Your Honor, I haven't offered
23 this one (indicating) yet, but I believe it is part
24 of the record at this point. And notwithstanding

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1 your ruling, I still will supply copies to the Court
2 and Counsel of the original Federal Register publication.

3 THE SPECIAL MASTER: That is fine, I appreciate
4 it, but according to the rules you know it is
5 not necessary.

6 Q (By Mr. Merrill) Mr. Dornbusch, do you recall during
7 your deposition on June 2, 1980, being asked what
8 discount rate you were using in your analysis?

9 A At that time I believe you asked me what discount
10 rate I used.--

11 Q Do you recall your answer?

12 A -- in the analysis, and I believe that I said the rate
13 I was using was seven and one-eighth percent.

14 Q Do you recall being asked the basis for using
15 seven and one-eighth percent?

16 A Well, perhaps the easiest way to do it is just to
17 refer to that deposition, and perhaps you can tell me
18 where the --

19 Q Why don't you turn to Page 127.

20 A This is the second deposition?

21 Q First deposition.

22 A I thought so. One hundred twenty --

23 Q Seven.

24 A Okay. The question, "What was the basis of your
25 dornbusch-cross-merrill



1 selection of seven and one-eighth interest rate.?"

2 "This is the rate specified by the WRC Principles
3 and Standards as the rate to be used in the evaluation
4 of water resource development projects."

5 That is what I said.

6 Q (By Mr. Merrill) Thank you. Mr. Dornbusch, do you
7 have an independent knowledge from the documents I
8 have shown you what the current Water Resource Council
9 discount rate is?

10 A Yes, I believe the current rate is seven and three-
11 eighths percent.

12 Q I direct your attention to Exhibit ED-3. Can you tell
13 me what ED-3 is, please?

14 Q Yes, it is part two of the Water Resource Council
15 guidelines.

16 THE SPECIAL MASTER: Before we pass from the last
17 subject matter and go into this one, it is a good time
18 to inquire on my part.

19 Mr. Dornbusch, would you please tell me where I
20 can find the best presentment of your reasons for
21 using four percent instead of the seven? Was that
22 in yesterday's explanation on your main case, do you
23 know, or was that on the beginning of the cross-
24 examination yesterday or --

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THE WITNESS: I believe that there was a paper
that I prepared that was submitted in evidence. I
think it was submitted in evidence.

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1 THE SPECIAL MASTER: That contained that information?

2 THE WITNESS: That contains my analysis of why the
3 proper rate to be used is no higher than four percent.

4 MR. ECHOHAWK: Exhibit C-275.

5 THE SPECIAL MASTER: 275. Well, give me the number
6 again, Mr. Echohawk.

7 MR. ECHOHAWK: C-275. I have an extra copy.

8 THE SPECIAL MASTER: Would you be good enough to
9 let me have that, please.

10 (Document handed to the
11 (Special Master by Mr. Echohawk.

12 MR. ROGERS: Your Honor, I would also remind the
13 Court that while I was not personally here for the
14 witness in initial direct testimony on future lands, which
15 was, I guess, two weeks ago, we did have an examination,
16 the Tribes' examination of Mr. Dornbusch which began the
17 first thing Monday, a week ago, which had some discussion
18 about the four percent rate.

19 THE SPECIAL MASTER: Thank you very much.

20 THE WITNESS: Yes, I believe I have discussed it
21 in the record, and it's contained in that paper, and
22 since you raised the question, I was assuming Mr.
23 Merrill was getting there since you want to focus directly
24 on this issue right now, and I think we should. It's
25 probably what we ought to call the nitty-gritty of a lot



1 of the things we have been talking about.

2 I would like to put into context some of the things
3 Mr. Merrill has been talking about.

4 MR. MERRILL: At this point, I'm going to interrupt.
5 I apologize to Mr. Dornbusch for doing so.

6 I believe I'm entitled to cross-examine the witness
7 in the way I see fit without Mr. Rogers and the
8 witness interrupting and interjecting their theories of
9 what the appropriate rate is to be.

10 THE SPECIAL MASTER: They are answering my question,
11 Mr. Merrill. You may be right that you are entitled to
12 cross-examine without my interruption too, and I will try
13 not to make them, but I did want to get clear in my mind
14 what I need as to that four and seven percent, and that's
15 why I asked it at the time.

16 MR. ECHOHAWK: I think the witness is entitled to
17 answer the questions.

18 THE SPECIAL MASTER: I think all of us are getting
19 pretty tired. Maybe we should break at this point. Does
20 that sound like a sensible thing to do?

21 MR. ECHOHAWK: I think it's fine to keep going.

22 THE SPECIAL MASTER: Can you go another half hour?

23 MR. MERRILL: Yes.

24 THE SPECIAL MASTER: Let's go another half hour or so.

25 THE WITNESS: I would like to just finish with relation



1 to Mr. Merrill's questions, as to my deposition statement.

2 THE SPECIAL MASTER: All right. You may proceed.

3 THE WITNESS: My deposition was on June -- excuse me.

4 Let me check that date.

5 MR. MERRILL: June 2, 1980.

6 THE WITNESS: That is correct.

7 THE SPECIAL MASTER: That's the first deposition?

8 THE WITNESS: The first deposition, correct.

9 I said that the rate that I used was seven and one-eighth
10 in my analysis.

11 I did not say that this is the correct rate to use,
12 and ultimately it is not the rate, as you know, that I did
13 use.

14 I did not say this is the real rate, which I think is
15 the proper rate to use. It's simply the rate that I was
16 using at that time in my analysis.

17 I was aware that this is the rate called for by the
18 WRC. I was also aware it was not the real rate, that the
19 real rate was lower.

20 I was in the middle of my analysis to determine what
21 was the proper real rate to be used.

22 Further, in Mr. Merrill's -- I don't know if this
23 had been accepted in evidence, but when it's describing
24 the seven and three-eighths and seven and one-eighth,
25 it's saying the interest rate to be used by federal agencies



1 in the formulation and evaluation of plans for water and
2 related resources, is, and the rate --

3 Two points: one is they don't say this is the
4 real rate. They say this is the rate to be used.

5 I can't speculate as to what the reasons are why
6 they want to use this particular rate. I think there
7 clearly are reasons other than the fact that it's the
8 real rate. They do not say it's the real rate. They
9 also say it's to be used in the formulation and evaluation
10 of plans for development projects -- excuse me -- land
11 resources projects, so that is not what we are doing.

12 If I had to appear before Congress to justify a land
13 and water related development project, I feel I would be
14 bound by using this rate, but I also would point out to
15 them this is not the real rate or the current rate to be
16 used in a proper economic evaluation.

17 In this particular situation, we are evaluating the
18 water rights situation. We are not developing plans and
19 in that case, I will also point out to you that the rate
20 they are calling for here is for the development of plans,
21 not for the evaluation of water rights.

22 In the case in this situation where we are talking
23 about water rights, I feel the proper rate to use is the
24 real rate, and I will go on to define that when we have
25 time. If you want to do it now, I would be happy to do it



1 now.

2 THE SPECIAL MASTER: I would rather Mr. Merrill
3 proceed with what he has in line for questioning.

4 THE WITNESS: Thank you, Your Honor.

5 Q (By Mr. Merrill) Mr. Dornbusch, do you recall being
6 asked in your January, 1981, deposition about the discount
7 rates?

8 A Yes, I do.

9 Q Do you recall stating in that deposition that, quote,
10 standard procedure by the Bureau of Reclamation and others
11 is to stick with the rate that you use when you begin your
12 analysis, close quote?

13 A Yes, I think what I was talking about is the fact that
14 an analysis can take quite a bit of time, can take more
15 than a year, and that my understanding is that the standard
16 practice is to use the rate that's in effect at the time
17 you begin your analysis, whether or not your analysis con-
18 tinues over into the next fiscal year.

19 For example, if you were doing an analysis of a water
20 resource development project now, you would be required to
21 use a seven and three-eighths percent. If your analysis
22 continued on and the rate went up, you would stick to that
23 rate.

24 Q Would you please take out your copy of your January
25 dornbusch - cross - merrill



1 deposition and turn to Page 17?

2 MR. ECHOHAWK: 17?

3 MR. MERRILL: Yes.

4 THE WITNESS: Okay.

5 Q (By Mr. Merrill) I direct your attention to Lines 19
6 through 23. Would you please read those to the Court?

7 MR. ECHOHAWK: Objection, Your Honor. This is
8 improper use of a deposition.

9 THE SPECIAL MASTER: I'll overrule that.

10 A Well, the discussion that preceded this is the discussion
11 of just what I talked about now, the fact that you begin
12 with a rate in effect at the time, and the question was:

13 "Is that the reason you chose to
14 stick with the seven and one-eighth?"

15 It is.

16 Question: Is because you started
17 with seven and one-eighth?

18 That's right."

19 Should I read further?

20 Q No, that's fine. Thank you.

21 A But there's another section in my deposition where I also
22 talked about the fact that I performed the analysis using
23 different discount rates, and that's where Mr. Merrill --

24 THE SPECIAL MASTER: Do you feel that your answer
25 just now is something taken out of context, that doesn't

dornbusch - cross - merrill



1 give the total picture? Then you are free to refer to
2 the --

3 THE WITNESS: Yes, I'm saying this was the rate I
4 used to run a series of tables, and an analysis to show
5 what the numbers would be.

6 It's not as I'm testifying now at what I felt then
7 to be the real rate, and in fact, I think the evidence is
8 in my deposition that I ran these numbers for just the
9 purpose of displaying what the sensitivity was of these --
10 of the feasibility to different rates.

11 Q (By Mr. Merrill) So it's your professional opinion that
12 the real rate is the correct rate to use in this case; is
13 that correct?

14 A That's right.

15 Q I direct your attention to your memorandum entitled,
16 "Choice of a Discount Rate for Evaluating Water Resource
17 Projects", which has been admitted into evidence as Exhibit
18 C-275.

19 A I don't believe I have that.

20 MR. ECHOHAWK: I have an extra copy.

21 THE WITNESS: Oh, excuse me. I have a copy of my paper.

22 MR. MERRILL: There's one marked as an exhibit.

23 THE WITNESS: Fine.

24 Q (By Mr. Merrill) In that memorandum you quote extensively
25 dornbusch - cross - merrill



1 from Professor Howe; is that correct?

2 A. That's correct.

3 Q. Do you regard Professor Howe as an authority in the field
4 of resource economics?

5 A. Yes.

6 Q. Do you recall when the monograph by Professor Howe which
7 you quote was written?

8 A. I'm looking at my footnote and I see that it was 1971.

9 Q. Let me hand you what's been marked for identification as
10 Exhibit ED-26, a little more recent publication by
11 Professor Howe. Please identify that document.

12 A. It's called, "Natural Resource Economics, Issues, Analysis,
13 and Policy", by Charles W. Howe.

14 Q. I direct your attention to Page 158 of that document, the
15 second full paragraph on 158.

16 Would you please read that paragraph?

17 A. "Where does this leave us in selecting an appropriate
18 discount rate for public-sector programs? The federal
19 government and the United States currently follow a
20 practice of averaging interest rates on certain classes
21 of government bonds of far-off maturity. The resultant
22 rate, now six and three-eighths percent per annum, is
23 below market rates and represents a risk-free return.
24 Some argue that even that rate is too high, but on balance,
25 dornbusch - cross - merrill



1 it seems as appropriate as any other figure."

2 Q Is there not a footnote in the middle of that paragraph?

3 A "Footnote 6, The U. S. Treasury Department makes the
4 the computation once each year and transmits it to the
5 Water Resources Council, an independent executive
6 coordinating agency."

7 Q I had what's been marked for identification as Exhibit
8 ED-25, another publication by Professor Howe, and I direct
9 your attention to the first full paragraph on Page 69 of
10 that document.

11 MR. ECHOHAWK: Could we have the document identified?

12 MR. MERRILL: I'm sorry, Your Honor.

13 Q (By Mr. Merrill) Would you please identify ED-25, Mr.
14 Dornbusch?

15 A It's called, "Benefit-Cost Analysis for Water System
16 Planning," by Charles W. Howe.

17 Q Would you please read --

18 A 1971

19 Q Excuse me. Would you please read the first full paragraph
20 on Page 69 of that document?

21 A "The best resolution of this series of baffling questions
22 yet found by this author is to take the position that no
23 public project should be undertaken that would generate a
24 rate of return less than the rate of return that would

25 dornbusch - cross - merrill



1 have been experienced on the private uses of funds that
2 would be precluded by the financing of the public project
3 say, through taxes or bonds."

4 Q I direct your attention then further down the page, Page 69,
5 to a line beginning with, "Haveman, 1969."

6 A "Haveman, 1969, found in a very detailed empirical
7 investigation the appropriate weighted average to be about
8 7.3% for 1966. Because interest rates have increased since
9 that time, a reestimate today would higher, perhaps 10 or
10 11%."

11 Q Thank you.

12 A I assume you are going to give me an opportunity to comment
13 on these sometime?

14 Q Yes, I certain will.

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16 * * * * *

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1 Q (By Mr. Merrill) I hand you what has been marked for
2 identification as Exhibit ED-21. Would you identify that
3 document?

4 A U.S. Water Resources Council, Options for the Discount
5 (Interest) Rate, November, 1975.

6 Q I direct your attention to the final page of that docu-
7 ment entitled appendix A.

8 A Okay.

9 Q You see the far right-hand column in Appendix A that indi-
10 cates the rate of inflation for the years 1935 through
11 1975?

12 A I do.

13 Q Isn't it true that the rate of inflation for 1966 was 2.5
14 percent, according to this document?

15 A According to this document it is 2.5 percent.

16 Q And isn't it true that if we subtract the 2.5 percent in-
17 flation component from the 7.3 percent found by Dr. Have-
18 man, that you are left with a real inflation rate of 4.8
19 percent?

20 A If you accept the rate found by Dr. Haveman as being 7.3
21 percent and if you accept the rate of inflation as being
22 2.5 percent at the current time, what you say is true.
23 However, it's not appropriate to subtract a current rate
24 of inflation from a current nominal interest rate as I
25 described before. What you are trying to do is project



1 what the future rate of inflation would be, and that it
2 be an appropriate rate to subtract from the nominal rate.
3 When you give me an opportunity, I would be happy to go
4 through Dr. Haveman's article in '69 and go into greater
5 detail on that. In fact, what is interesting is if you
6 look at '66, the year '66 and later, you see that the interest
7 rate has actually increased; that's the expectation, there-
8 fore, of people at the time in 1966 was very likely to be
9 higher than the 2.5 percent. As you show, you come out
10 with a 4.8 percent. If you deduct simply the rate in that
11 year, and if you were to deduct a higher rate, you could
12 easily see it would very quickly come down to 4 percent or
13 lower. As I said, when I have an opportunity I will be
14 glad to take you through that explanation.

15 Q Isn't it true that according to Exhibit ED-25, Mr. Haveman
16 estimated the interest rates in 1971 to be perhaps 10 or
17 11 percent?

18 A Mr. Haveman or Mr. Howe?

19 Q I'm sorry, Dr. Howe.

20 A I think Dr. Howe was quoting from Haveman and quoting
21 7.3 percent in '66 and drew some conclusions from that.

22 Q All right. Isn't it true that in the second sentence
23 beginning "because interest rates have increased since
24 that time...." that Dr. Howe's estimate is that the inter-
25 est rates in 1977 would be 10 or 11 percent?

dornbusch - cross - merrill



1 A That's what Dr. Howe says, uh-huh.

2 Q Would you please look at appendix A of Exhibit ED-21?

3 A All right.

4 Q And determine the rate of inflation for 1971 according
5 to that document.

6 A Okay. For 1971, according to this document?

7 Q Uh-huh.

8 A Well, according to this document I believe -- it's hard
9 to follow lines across, but I believe it's 4.7 percent --

10 Q Do you want a ruler?

11 A -- in 1971.

12 THE SPECIAL MASTER: Count down from the top. It's
13 five down from the top on the left, or six down.

14 THE WITNESS: Okay. Well, you can see that Dr.
15 Howe is saying perhaps. He didn't make an analysis of
16 what it's likely to be, but I think that the principles
17 that you are seeing is that -- and that I would like to
18 emphasize -- is the fact that if you take a nominal rate,
19 the objective is then to subtract. Expected rate of in-
20 flation; I think their thinking is wrong in taking the
21 current rate of inflation. I have described why you want
22 the expected rate of inflation. But the principle of
23 taking the nominal rate and subtracting inflation is pre-
24 cisely the point I'm making. I think I will make a stronger
25 case for what the real rate ought to be than the suppositions

~~dornbusch~~ ~~cross~~ ~~merrill~~

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1 of Dr. Howe in this article and the analysis that Dr.
2 Haveman made in his '69 article.

3 Q Mr. Dornbusch, isn't it true if you subtract the 4.7
4 percent rate of inflation in 1971 from the 10 to 11
5 percent interest rate that Dr. Howe assumes, that you
6 are left with a real discount rate of 5.3 to 6.3 per-
7 cent?

8 A Assuming that it's the rate of inflation. And if you
9 subtract it from what Dr. Howe says is perhaps 10 or
10 11 percent, you come to the rate you are talking about.
11 However, I point out again that subtracting a current
12 rate of inflation is not the proper thing to do, you
13 should subtract the future rate of inflation.

14 THE SPECIAL MASTER: Mr. Merrill, I think the appendix
15 A chart shows the 1971 rate of inflation was 5.8 and not
16 4.7. Would you sustain that for me, please? Either
17 verify it or correct me.

18 MR. MERRILL: I will sure check, Your Honor.

19 (Brief pause.

20 MR. MERRILL: I believe it is 4.7, Your Honor, un-
21 less I'm holding my paper crooked.

22 THE SPECIAL MASTER: Count down from the top. The
23 top one says 9.7 for 175.

24 MR. MERRILL: Well, Your Honor, the rate of inflation
25 dornbusch - cross - merrill



1 for '75 was not recorded. There are two hyphens in that
2 chart.

3 THE SPECIAL MASTER: All right, that straightens
4 out my worried head. Thank you.

5 THE WITNESS: There is something else I would like
6 to point out. I'm looking at that footnote, footnote 2
7 on that page, and it says the way they calculated the
8 rate of inflation is that they have used their rate of
9 change and implicit GNP price inflator for nonresidential
10 domestic investment. I think that there are lots of ways
11 of trying to calculate the --

12 THE SPECIAL MASTER: Rate of inflation.

13 THE WITNESS: -- rate of inflation. This perhaps
14 is one way. I am not going to get into a discussion now
15 of its appropriateness or not, but what you might do is
16 somehow get inside of the head of the people who are
17 loaning money at particular rates and see what it is
18 that their dealing is going to be, the changing value of
19 a dollar.

20 THE SPECIAL MASTER: Well, back to Mr. Merrill's
21 question, I'm sorry.

22 MR. MERRILL: Thank you, Your Honor.

23 Q (By Mr. Merrill) Mr. Dornbusch, isn't the 5.3 to 6.3
24 range for the real discount rate that's suggested by
25 dornbusch - cross - merrill



1 this particular analysis higher than 4 percent that
2 you have stated in your direct testimony?

3 MR. ECHOHAWK: 5.3 suggested by which?

4 MR. MERRILL: Suggested by this analysis we have
5 just worked through.

6 MR. ECHOHAWK: Which analysis?

7 MR. MERRILL: Subtracting the rate of inflation
8 shown on Appendix A of Exhibit ED-21 from the interest
9 rates described on page 69 of Exhibit ED-25.

10 MR. ECHOHAWK: Objection, Your Honor, this is Mr.
11 Merrill's analysis of the way you should do it.

12 THE SPECIAL MASTER: Well, he asked the question if
13 it is this way you would do it, and I think the question
14 is appropriate.

15 THE WITNESS: If you are asking me if 5 is greater
16 than 4 or 5.6 is greater than 4, the answer is 5 and 5.6
17 are greater than 4. I think that is clear. I think
18 whether this is a valid analysis here is in serious
19 question, and if you are proposing this as a valid analy-
20 sis, I think -- what I would like to see is details of
21 the analysis you are proposing in order to analyze it
22 in question.

23 Q (By Mr. Merrill) You will have an opportunity to review
24 the document and state your side of the analysis on your
25 dornbusch - cross - merrill



1 redirect examination, I'm sure.

2 A Well, this document just says a reestimate today would be
3 higher than perhaps 10 or 11 percent. I don't see that
4 back-up analysis to that.

5 Q Mr. Dornbusch, what does your memorandum concerning the
6 real discount rate cite Exhibit ED-21, the Water Resources
7 Council memorandum, concerning options for the discount
8 rate?

9 A Yes, it does, on page 3, cited in my footnote 3.

10 Q I direct your attention to page 19 of Exhibit ED-21 on
11 which you're analysis relies, and particularly footnote
12 7 on page 19.

13 (Brief pause.)

14 Q Have you had an opportunity to review that footnote?

15 A Yes, I have.

16 Q Isn't it true that you disagree with economics professors
17 concerning the real discount rate?

18 MR. ECHOHAWK: Could I have the question back?

19 (Whereby the reporter read back:
20 ("Isn't it true that you disagree
21 (with economics professors concern-
22 (ing the real discount rate?"

23 MR. ECHOHAWK: Objection, Your Honor. The question
24 is too general. What economic professors?

25 * * * * *

dornbusch - cross - merrill



1 Q (By Mr. Merrill) Let's start with Professor Howe.

2 A Well, Professor Howe does not perform an analysis.

3 He says perhaps, and he did not also draw a conclusion
4 as to what the real discount rate is. He did not
5 subtract inflation from his perhaps rate and, therefore,
6 I do not know whether or not I disagree with him until
7 I see what real discount rate he would conclude.

8 As to Haverman, I will get into that when I
9 have a chance.

10 Q All right. Let me hand you what's been marked for
11 identification as ED-22.

12 Would you please identify that document for the
13 record?

14 THE SPECIAL MASTER: Mr. Merrill, it becomes
15 apparent that we are not going to finish this discount
16 or this point tonight, are we, very well? I'm thinking
17 of adjourning. This is a fairly good time to take
18 a break as we go through your questions on this one
19 more exhibit.

20 MR. MERRILL: Your Honor, I probably have another
21 20 or 30 minutes on this point. I would ask the
22 Court's indulgence to allow me to continue this part
23 of the cross-examination. It's an awkward place for
24 me to stop.

25 dornbusch-cross-merrill



1 THE COURT: All right. Let's go ahead.

2 THE WITNESS: May I point out that I may have
3 20 or 30 minutes myself. I think this is a very key
4 issue. I think that --

5 THE SPECIAL MASTER: You mean you would want
6 20 or 30 minutes to respond?

7 THE WITNESS: It's very possible.

8 THE SPECIAL MASTER: And you may need 20 or 30
9 minutes in addition to that?

10 MR. MERRILL: Well, Your Honor, the witness will
11 have a chance to respond on redirect examination.

12 MR. CLEAR: The witness has a right to respond
13 to the questions.

14 MR. MERRILL: I certainly have not tried to cut
15 off the witness' answers.

16 THE SPECIAL MASTER: I don't want to quit today
17 if it's awkward for anybody, but I would like you to
18 go ahead, but it's obvious that we are going to be
19 on this same subject matter tomorrow morning, no
20 matter how late we go tonight. I don't intend to go
21 beyond five o'clock, and it's fifteen to five now.

22 MR. MERRILL: Your Honor, it's very likely, to
23 complete this area of cross-examination, and taking
24 into account that Mr. Dornbusch will probably have
25 fairly lengthy responses to the questions, that we will



1 go beyond five. And if you want to quit, we had
2 probably better do it now.

3 MR. ECHOHAWK: Your Honor, perhaps in order to
4 speed things along, if Mr. Merrill has any more of
5 these exhibits he wishes to cross Mr. Dorbusch about,
6 if he would let us have them now and identify them
7 and move the discussion on better now rather than
8 stopping and having time to read them?

9 THE SPECIAL MASTER: That depends on Mr. Merrill.

10 MR. MERRILL: Your Honor, I prefer to run my
11 cross-examination in my own order.

12 MR. ECHOHAWK: Tomorrow we are going to be short
13 the time if we are going to try to conclude this
14 area, and it's going to be trial by surprise, and
15 we will have to ask for time to stop and review the
16 documents before we go to redirect examination.

17 MR. MERRILL: Your Honor, I find it incredible
18 that the United States talks to me or to you about
19 trial by surprise when we have had consistent
20 violations of the ten-day rule, and when that was
21 modified to a five-day rule, violations of that.

22 I'm not required by any rule of evidence,
23 procedure, or trail practice to disclose the substance
24 of my cross-examination.

25 Part of the test of the witness; analysis and



1 credibility is how well he can respond to challenges
 2 to the assumptions and procedures that he has used
 3 in his analysis. I don't think I'm required to
 4 disclose wholesale the contents and direction of my
 5 cross-examination to a witness before I actually
 6 perform the cross-examination. It's an elemental
 7 rule of trial practice.

8 MR. ECHOHAWK: But my point is that we all know
 9 the point concerned in the next few hours or perhaps
 10 the next day of cross-examination is the discount rate.
 11 That's no surprise. We all know that. The question
 12 is Mr. Merrill is continually showing documents in
 13 front of Mr. Dornbusch and saying, "Here, tell me
 14 about this, and tell me about this."

15 If we can have time to see those documents, look
 16 at them, responses will be much quicker.

17 MR. CLEAR: Your Honor, we would point out
 18 several times during the cross-examination conducted
 19 by Mr. White, instead of having him ask do you have
 20 such and such a document, as you may recall, we took
 21 several documents with Dr. Mesghinna and Mr. Stetson
 22 and went through their work notebooks and just gave
 23 the documents over practically wholesale in order to
 24 speed up the cross-examination rather than going through
 25 this identification business.



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1 MR. MERRILL: Well, Your Honor, if we can obtain
2 the same privilege from the United States when they
3 begin to cross-examine our experts, I will be glad to
4 comply.

5 THE SPECIAL MASTER: Let's go ahead for a few
6 minutes with your analysis if you wish, this ED-22.

7 MR. MERRILL: This is as convenient a time to
8 break as any, and the Witness has that document, and
9 he can review it overnight.

10 MR. ROGERS: If we are going to break, there is
11 one matter I would like to leave with the Court over-
12 night.

13 I would like to serve on Counsel here a request
14 for production from the Tribes and a motion together
15 with it to shorten the time for response in connectin
16 with some documents we would like to get from the
17 State, and I would like to, if we could, unless Mr.
18 Merrill would agree to furnish us the information
19 in the shortened time without argument, would like to
20 sometime tomorrow before we close for the week.

21 I'm not asking to argue it right now, but I did
22 want to put it in the party's hands.

23 A part of what we request is --

24 THE SPECIAL MASTER: All right, sir, let's wait
25 until Mr. Merrill has got a chance to read it.



1 MR. ECHOHAWK: Your Honor, I again renew my
2 request for the additional documents and ask that
3 the Court urge Mr. Merrill to give us those documents.

4 THE SPECIAL MASTER: Let's let him read it,
5 Mr. Echohawk, and if good cause is shown, we will
6 order that they produce it, but let's let him read it.

7 MR. ECHOHAWK: I thought we were finished with
8 that. I'm sorry.

9 MR. MERRILL: Your Honor, I would be happy to
10 argue the motion to shorten time tomorrow. That
11 would be no problem at all.

12 THE SPECIAL MASTER: If we can do something on
13 these exhibits with Mr. Dornbusch, that will be
14 appreciated, too.

15 We will stand in recess until --

16 THE WITNESS: Excuse me, Your Honor. If I may,
17 what I have here are one-page excerpts from what
18 apparently are much longer articles and publications,
19 and I think I would prefer, if I'm going to review
20 those publications, I would like to see the entire
21 publication because it's my experience --

22 THE SPECIAL MASTER: I can appreciate that, and
23 we can get to that, and you can qualify any answers
24 you give to questions on that very understandable
25 qualification.



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We will stand in recess until tomorrow morning
at 9:15.

(Whereupon the proceedings
(recessed at 4:50 p.m.,
(May 21, 1981.

* * * * *



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2

3 WITNESS: DAVID DORNBUSCH

4 Cross-Examination (Resumed)

by Mr. Merrill

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County of Laramie)

We, Mary Nelson and Viola J. Lundberg, Registered Professional Reporters and Notaries Public, hereby certify that the facts as stated in the caption hereof are true; that we did at the time, date and place, as set forth, report the proceedings had before the Honorable Teno Roncalio, Special Master Presiding, in stenotype; that the foregoing pages, numbered 5890- 6092 inclusive, constitute a true, correct and complete transcript of our stenographic notes as reduced to typewritten form under our direction.

We further certify that we are not agents, attorneys or counsel for any of the parties hereto, nor are we interested in the outcome thereof.

Dated this 20th day of May, 1981.



MARY NELSON
Registered Professional Reporter



VIOLA J. LUNDBERG
Registered Professional Reporter

