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Case # 4993

File # 194

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

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

FILED
8/3 19 81
Margaret Hampton CLERK
DEPUTY

VOLUME 87

Friday, July 10, 1981

ORIGINAL

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CLERK TO THE
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1 THE SPECIAL MASTER: Okay, Mr. White.

2 MR. ECHOHAWK: Your Honor, before Mr. White begins --
3 yesterday before Mr. Billstein was dismissed he had one
4 matter he needed to check some figures and deliver some
5 totals and I have those and with Mr. White's agreement,
6 I'll just read those into the record and we'll be
7 finished with Mr. Billstein.

8 MR. WHITE: Your Honor, the State would stipulate
9 and I assume the Tribes would if Mr. Billstein were to
10 testify in response to that question his answers would
11 be as Mr. Echohawk will read them.

12 THE SPECIAL MASTER: Let the record also show he is
13 in Court so if they are misread or misquoted, he can say
14 so.

15 MR. ECHOHAWK: Mr. White had asked for an accounting
16 within the minor tributaries with Mr. Stetson's totals
17 for the South Fork of Owl Creek. And Dry Cottonwood
18 Creek has 142 acres, Red Creek has 259.3 acres, Bear
19 Creek has 35 acres and Carney Creek has 57.9 acres.

20 THE SPECIAL MASTER: Do we need a total of those?
21 It is not necessary?

22 MR. WHITE: It is not necessary, Your Honor.

23 THE SPECIAL MASTER: All right, thank you Mr.
24 Echohawk.

25 Mr. White.



CROSS-EXAMINATION (RESUMED)

1
2 BY MR. WHITE:

3 Q Mr. Toedter, I believe you indicated earlier that the
4 difference between temporal distributions of return flow
5 in your depletion study as opposed to your return flow
6 study, was the result flow study including the surface
7 return as well as ground return, is that correct?

8 A I'm not sure as I understand your question.

9 THE SPECIAL MASTER: Before you proceed, may I have
10 a definition of the word temporal when used regarding
11 a return flow, please, Mr. Toedter?

12 THE WITNESS: Okay. Well, I think as temporal in
13 the sense that's it's a distribution and it's, oh,
14 cyclical type pattern that we're talking about. Namely,
15 usually the highest level of return flow being in the
16 late portion of the irrigation season and the lowest
17 portion being prior to the start.

18 THE SPECIAL MASTER: All right, what is the temporal
19 return flow compared with? What is an antonymous
20 situation to a temporal return flow? You know, you can
21 have a high flyer and a low flyer in aviation, you have
22 I.F.R. or V.F.R. condition, you have a temporal return
23 flow as to what other kind of return flow is there?

24 THE WITNESS: Okay. Well, I don't think, you know,
25 toedter-cross-white



1 you can make this sort of a comparison.

2 THE SPECIAL MASTER: Then why do we use the word
3 temporal?

4 MR. WHITE: Your Honor, if I could ask a couple of
5 questions I might be able to clear it up.

6 THE SPECIAL MASTER: Well, if you can put some light
7 on the subject matter, I would be grateful to you, Mr.
8 White. I just want to know what it means when it is used
9 that way.

10 Q (By Mr. White) Bob, let's say in April you divert ten
11 c.f.s. and -- I would like you to assume the following
12 fact: In April we divert ten c.f.s. during the month
13 and we apply it to a 20-acre tract, 40-acre tract, what-
14 ever -- let's call it a 40-acre tract.

15 A Okay.

16 Q And some of that water is lost out the ditch, some of
17 the water is consumed by the plants but some of the water
18 is left over and some of the water that's left over is
19 lost to deep percolation.

20 A That's right.

21 Q And some of it gets back to the stream.

22 A Right.

23 Q It finds its way either on top of the ground or through
24 percolation, under the ground back to the stream, is

25 toedter-cross-white



1 that correct?

2 A That's correct.

3 Q Now, the water that we divert during April doesn't get
4 back to the stream during April does it?

5 A Not necessarily.

6 Q Some of it may get back during April, but the time it takes
7 to get from the place we diverted back to the stream is
8 stretched out so some will get back in April, some will
9 get back in May, some will get back in June, right?

10 A Okay. Let's point out this fact: I think the surface
11 return flow in these modeling states is usually considered
12 to return within the month like April, for instance.

13 THE SPECIAL MASTER: Is deep percolation and --

14 THE WITNESS: Okay. Now, the deep percolation is
15 going to take a longer period of time to take in return
16 because it moves through the ground rather than across
17 the surface.

18 THE SPECIAL MASTER: That's the feeding of life to
19 the river system that was referred to various times by
20 Mr. Kersich.

21 MR. WHITE: Well, that's deep percolation, Your
22 Honor, and then there is also just the return flow.

23 THE SPECIAL MASTER: For the alluvium.

24 MR. WHITE: Underground, but fairly shallow and it
25 toedter-cross-white



1 takes a long time. There is time distribution. The
2 temporal distribution over a period of time.

3 THE SPECIAL MASTER: A what distribution?

4 MR. WHITE: A temporal distribution over a period of
5 months, before all the water that we diverted in April
6 that's going to get back into the stream is going to
7 get -- a certain percentage will get back in May, a
8 certain percentage in June --

9 THE WITNESS: It is a like effect.

10 THE SPECIAL MASTER: I think I understand what you
11 mean by temporal return flow, it is always within one
12 irrigation season, you don't do it from one season to
13 another.

14 THE WITNESS: No, we haven't.

15 THE SPECIAL MASTER: When you're talking about return
16 flow.

17 MR. WHITE: It could be though.

18 THE WITNESS: Yeah, the mathematics become very very
19 complex.

20 THE SPECIAL MASTER: Well, that's nothing new to this
21 lawsuit.

22 MR. WHITE: As long as we're here, Your Honor, let's
23 just keep going in this general line of questioning, Your
24 Honor.

25 toedter-cross-white



1 THE SPECIAL MASTER: Okay.

2 Q (By Mr. White) Bob, on your temporal return flows in
3 your depletion analysis, you had 9.2 percent returning
4 in June, as I recall, is that correct?

5 A Okay, that's correct.

6 Q And in your return flow analysis you had 14.8 percent
7 returning in June, is that correct?

8 A Okay, that's correct.

9 Q The difference between those two is the addition of
10 surface return flow, is that correct?

11 A No, that's not correct.

12 Q Okay, I misunderstood your previous testimony. Why then
13 do you have 9.2 percent in one study returning in June
14 and 14.8 percent in the other study returning in June?

15 A Okay, the reason for this was just merely the way the
16 models were structured. We did the depletion work first,
17 and then the HEC-3 is the structured model in which we
18 had to develop some system within the program to account
19 for return flow. Consequently, it was necessary to
20 develop a technique in the HEC-3 to address this. By
21 merely combining both categories of return flow, both
22 your surface return flow and your groundwater return flow,
23 this was easily handled. Now, what I did in my depletion
24 analysis was the surface return flow is a direct proportion

25 toedter-cross-white



1 based on those efficiency relationships that I provided
2 in my previous testimony of the diversion. The volumetric
3 total was determined for the groundwater return flow in
4 the depletion study and then redistributed according to
5 the monthly percentages that I gave of which this 9.2
6 percent for June is one of them.

7 Q So you included both groundwater and surface water return
8 flows in both studies?

9 A Yes, both were included within both studies. However,
10 they were handled differently in each study. They were
11 combined in the systems operation study, they were
12 handles independently in the depletion study.

13 Q In the depletion study where you had 9.2 percent in June,
14 was that both groundwater and surface water?

15 A No, that was just groundwater.

16 Q Okay, and in the return flow study when you had 14.8
17 percent in June, was that both groundwater and surface
18 water?

19 A Yes.

20 Q Okay, of the 14.8 percent in June in your return flow
21 study, what proportion of that is surface return flow
22 and what proportion is groundwater return flow?

23 A Okay. Well, what I did was I, first off identified the
24 total and then I broke it back into a groundwater component.

25 toedter-cross-white



1 So by analyzing the thing, I found of the 14.8 percent
2 in June that about 3.9 percent -- or 3.9 of that 14.8 as
3 compared to 3.9 was groundwater.

4 Q So you multiply 3.9 percent times 14.8 percent?

5 A No.

6 Q Or you subtract?

7 A No. You could subtract them.

8 Q Okay.

9 A In other words, if you take a 14.8 percent would be
10 comprised of 3.9 percent plus --

11 Q The remainder?

12 A The remainder, yeah.

13 Q Can you give me those values begining in August for your
14 breakdown between -- or the percentage involving ground-
15 water?

16 A Do you want my groundwater percentages --

17 Q Yeah.

18 A -- or do you want --

19 Q Yeah.

20 A -- the difference?

21 Q Oh, the difference -- well, you gave me 3.9 percent
22 attributable to groundwater.

23 A Okay.

24 Q For June. Can you give --

25 toedter-cross-white



1 A The groundwater component --

2 Q Can you give me a similar groundwater component beginning
3 in October?

4 A Okay. In October I used 4.2. In November it was 3.7,
5 December 2.7, January 2.3, February 2.6, March 2.9,
6 April 3.6, May 3.7, June 3.9, July 4.0, August 4.2 and
7 September 4.3.

8 Q I want to make sure, July is 3.0 or 3.9?

9 A Excuse me, that would be 4.0.

10 Q Okay, 4.0. In August 4. --

11 A Two.

12 Q I'm sorry, could you just give me the June through
13 September?

14 THE SPECIAL MASTER: Why don't you read them, please,
15 from the record. Read the answer from the record, please.

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(The above portion of the
(answer was read back by the
(reporter as follows: "A. June
(3.9, July 4.0, August 4.2 and
(September 4.3."

MR. WHITE: Thank you, Lamont.

Q. (By Mr. White) Okay, Bob. Then in October in your
depletion study, you had 9.9 percent?

A. Yes.

Q. And that was ground water and in your return flow study,
you had 4.2 percent?

A. Yeah.

Q. And that was ground water?

A. Okay. What I did was I took these numbers, arrived at
the total and then developed it so I would come out with
a hundred percent. In other words, if you take the
ground water distribution that I give you for the
depletion study and add those numbers together, they
would total a hundred percent, and all you have to do
is just take the total of the numbers that I just pre-
viously gave you month by month. Take the monthly
value and divide by the total, and you will arrive at
the monthly percentages.

Q. I understand they add up to a hundred percent. Why,
during October in one study, do you have 9.9 percent,
and in the other study, you have roughly half of it,

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4.2 percent?

A. Okay just, you know, the way that was handled in terms of accounting to keep track of this thing. Once I, you know, developed a proportion that would occur during a given month for ground water, and we are just going through the means that I used to get there, you take the proportion that would occur during the given month times the total volume that occurs during the irrigation season that goes to ground water, and that's the component that will return as ground water return flow for that given month.

Q. Okay. In October for your return flow study, you had the total percentage ground water and surface water of 6.9 percent, correct?

A. Right.

Q. Now in order to determine the actual quantity of return flow surface and ground water return flow during October of, let's say, 1980, what would you multiply the 6.9 percent by? How would you determine the actual volume of return flow?

A. Okay. That goes back to the equation that I pointed out yesterday that return flow is equal to the total diversion, minus the overall efficiency, times the

toedter-cross-white



1 diversion, minus the non-beneficial use.

2 Q That gives you the total amount of diversion, is that
3 correct, for an irrigation season?

4 A. No, that gives me the total amount of return flow.

5 Q But for what month?

6 THE SPECIAL MASTER: Any month.

7 THE WITNESS: Well, first off, I need to know --

8 THE SPECIAL MASTER: You told me when I asked
9 that question last night you do it by the month, but
10 you don't divide by twelve. You can do it by the month
11 or by the week or by the season, isn't that a consistent
12 formula?

13 THE WITNESS: Yeah, you don't divide it by twelve,
14 you take the total, and then you take the monthly distribu-
15 tion percentage and multiply that percentage times the
16 total amount to come up with --

17 THE SPECIAL MASTER: I think we are back in the
18 same thickets we were laboring in yesterday afternoon,
19 but go ahead, Mr. White.

20 Q (By Mr. White) Let's assume you divide a hundred cfs --
21 Let's make it acre-feet, so it's easier.

22 THE WITNESS: Okay.

23 Q A hundred acre-feet during October of 1980, and the
24 overall efficiency is 50 percent, what's the return

25 toedter-cross-white



1 flow in acre-feet during October?

2 A. Okay, so the way one would approach this, you go back
3 to the original formula that I gave yesterday. The
4 return flow is equivalent to a hundred, which is the
5 diversion that you give me, times -- or minus 50 percent,
6 times the hundred, minus two-tenths, which is a non-
7 beneficial use level, times the hundred.

8 Q. So we're going to end up with 40 acre-feet for return
9 flow?

10 A. So you should end up with 30.

11 Q. 30?

12 A. Acre-feet for return flow.

13 Q. Okay.

14 A. Okay, then for example, October, if you take 6.9 percent --
15 or .069 times the 30 acre-feet, that will give you the
16 return flow.

17 Q. Okay, during October?

18 (Witness nodding head affirmatively.)

19 Q. Now, if we went through the same example for June of
20 1981, you came out with 30 acre-feet of return flow,
21 would the 6.9 percent of 30 apply to October of 1980?

22 A. Yes, in the manner which this study was set up, you know,
23 providing that for the rest of the irrigation season --
24 Well, I mean we made that basic assumption that each

25 toedter-cross-white



1 irrigation season will be patterned the same, and this
2 is, you know, based on duties that we have been provided
3 by the agricultural consultant.

4 Q So for the return flow that is attributable to irrigation
5 during the 1981 irrigation season, 6.9 percent of that
6 you have modeled as taking place last year, being return
7 flow in October of last year, is that correct?

8 A Well, no, it doesn't really work out that way. I mean
9 it looks like it works out that way, but, you know, you
10 have carried it forward from the previous year. But the
11 thing is, when you use the same amount of diversion
12 all the time, it doesn't make any difference when you
13 set your time frame up.

14 Q I see, and so --

15 A As long as it is structured.

16 Q And you avoid the problem by using the same amount of
17 diversion every year, is that right?

18 A That's right.

19 Q But had there been different amounts of diversion from
20 year to year, the result of your analysis would be to
21 have return flows from diversions based in July of 1981
22 coming back into the stream in October of 1980, isn't
23 that correct?

24 A Oh, we would have had to have structured our program
25 toedter-cross-white



1 differently.

2 Q. Based on your experience in the water resources area,
3 is it common to have the identical diversions year after
4 year after year?

5 MR. CLEAR: Objection, Your Honor. Mr. Toedter did
6 not testify on diversions on direct examination.

7 MR. WHITE: He's already opened up the area,
8 Your Honor --

9 THE SPECIAL MASTER: I'll sustain the objection.
10 If you have evidence to show that it is not then, it
11 is your duty to put it on in your case.

12 MR. WHITE: Your Honor, I would make the following
13 offer of proof:

14 If Mr. Toedter were allowed to answer the question
15 which I have just asked and for which the objection has
16 been sustained, he would testify that, based on his
17 experience, including the experience with the Bureau
18 of Reclamation, it is quite unusual to have identical
19 diversions year after year after year in the situation
20 such as has been modeled in this action and for which
21 his return flow analysis was prepared.

22 THE SPECIAL MASTER: Very well.

23 * * * * *

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25 toedter-cross-white



1 Q (By Mr. White) Directing your attention, Mr. Toedter,
2 to Exhibit C-294 and specifically the return flow area
3 bounded in yellow, collected at Node 29 --

4 A Yes.

5 Q -- isn't it true that that return flow area indicates
6 that return flow is being collected upstream rather than
7 downstream?

8 A I guess I don't understand your question because generally
9 return flow is collected from the lands that are -- oh,
10 I see what you're saying. Well, probably, the problem
11 with this is rather than the location of my node having
12 been placed here on the map it probably would have more
13 appropriately been located at this point (indicating),
14 between the orange and the yellow lines.

15 Now, one thing I might point out yet this point in
16 the study is return flow, it wasn't of particular
17 importance to us -- or to Mr. Billstein and his systems
18 operation work and we didn't even consider this portion
19 of the South Crowheart area as a result.

20 THE SPECIAL MASTER: Well, if you didn't consider
21 that portion of the South Crowheart, why did you put
22 a node station in it? Your tabulations in your programming
23 into the computer certainly used some figures that you got
24 on your return flow from that node station, didn't it?

25 toedter-cross-white



1 THE WITNESS: Not for South Crowheart, but yeah, the
2 program can figure -- show a figure, but essentially that
3 could be ignored for the purposes of this study.

4 THE SPECIAL MASTER: Well, if that figure can be
5 ignored for the purpose of this study, what is there to
6 deter one from ignoring the entire study?

7 THE WITNESS: Well, no, you can't do that.

8 THE SPECIAL MASTER: What are you telling us about
9 return flow that isn't known as a matter of history and
10 in the history of irrigation in the Rocky Mountain West?
11 What is your study telling me that I can't get out of a
12 text book on depletions and return flows in arid lands
13 comparable to that on the Reservation? Why do we have
14 to have three weeks of hearings on this that couldn't
15 have been done in one or two days in the scientific
16 application of return flows?

17 THE WITNESS: Okay. Well, I think the thing though
18 that one has to keep in mind and that is important to us,
19 is there is certain areas particularly here in the Little
20 Wind where return flows are a very important component of
21 our water supply and has been in the past.

22 THE SPECIAL MASTER: How can they be such an important
23 component in the Little Wind and 11 miles downstream you
24 ignore them, as you've just testified?

25 toedter-cross-white



1 THE WITNESS: Because, okay, they are not important
2 to the United States' claim as such. They are probably
3 important to other people downstream.

4 THE SPECIAL MASTER: Downstream users?

5 THE WITNESS: But, you know, we weren't interested
6 in that --

7 MR. ECHOHAWK: Your Honor, as you recall, when Mr.
8 Billstein testified in this particular area that we are
9 discussing now, he said that the reason his return flows
10 were calculated in this manner, which is a somewhat strange
11 configuration, is that it is a very small amount of
12 acreage and that that was also where the Popo Agie comes
13 in, where there is an abundance of water supply. It was
14 merely done for accounting procedure in order to facilitate
15 the study, and therefore, it goes to the comment it is
16 not important in the study at this point for that
17 particular node.

18 THE SPECIAL MASTER: Okay. Mr. White.

19 Q (By Mr. White) Mr. Toedter, are you indicating then that
20 Node 29 was misplaced on the map and should be placed
21 down by the orange boundary on Exhibit C-294?

22 MR. ECHOHAWK: Objection. I thought we had just
23 cleared that point up and he said it is not placed, it
24 is merely done for accounting. Mr. Billstein previously
25 toedter-cross-white



1 testified about that --

2 MR. WHITE: Well, that's Counsel's testimony.

3 MR. ECHOHAWK: We're getting back to the game of
4 trying to change exhibits.

5 THE SPECIAL MASTER: I'm going to sustain the
6 objection because this is a keg of worms we can be with
7 all morning.

8 MR. WHITE: Okay. Let me go on to the next one,
9 Your Honor.

10 THE SPECIAL MASTER: All right.

11 Q (By Mr. White) Mr. Toedter, the lines between the orange
12 area and the green area from which return flows are
13 shown to be collected respectively at Node 39 and 36
14 runs roughly down the river, doesn't it?

15 A That's correct.

16 Q Isn't it true that return flows from this area would come
17 back into the river above Node 36, rather than being
18 collected all the way down here at Node 39?

19 A Yes. The reason why we handled it in the manner that we
20 did, is again for accounting purposes within the HEC-3
21 program. It would have made it very awkward to have
22 accounted for it in a manner to have included this area
23 (indicating), within that area there.

24 THE SPECIAL MASTER: It would have been awkward to
25 toedter-cross-white



1 have included the area on both sides of the river, the
2 northwest and southeast at the same point in your project?

3 THE WITNESS: Yes, because it would have required --

4 THE SPECIAL MASTER: In your model?

5 THE WITNESS: Yes, because it would have required a
6 separate determination of acreage for this area in here
7 (indicating). Again, it is an accounting thing and it
8 gets back to the importance of the return flow. That
9 quantity of return flow at a particular location here in
10 the study.

11 THE SPECIAL MASTER: Okay.

12 Q (By Mr. White) Mr. Toedter, yesterday afternoon we were
13 talking about the uniform application of your temporal
14 distribution return flows throughout your study area,
15 do you recall that general discussion?

16 A Yes.

17 Q And isn't it true that you indicated that if the study or
18 the return flow areas were similar, it really was not
19 necessary to compute different temporal distributions,
20 that you could have 6.9 percent coming back in October
21 in all of the areas?

22 A Yes.

23 Q Isn't it true that the efficiencies in, let's say, the
24 blue area that culminate in Node 39, the overall

25 toedter-cross-white



1 efficiencies --

2 A Yes.

3 Q -- and the overall efficiencies in the red area, which
4 includes the Dinwoody Bench area that collect in 24 --

5 A Yes.

6 Q -- are significantly different?

7 A Yes, they are.

8 Q It is roughly --

9 A Your volume of your return flow is significantly different
10 too.

11 Q Isn't it true that the overall efficiency in the North
12 Crowheart Unit of which the blue area is a part, is
13 roughly 50 percent?

14 A Yes.

15 Q And the overall efficiency in the Dinwoody Bench area is
16 roughly 16 percent?

17 A Yes.

18 Okay. But, it gets back to my original point that
19 even though your temporal distribution stays the same,
20 your volume is significantly different and because of the
21 fact that when you take and multiply your distribution
22 times your volume, if that -- even though that factor
23 remains constant, you're going to end up with a lower
24 volume of return flow for an area that has higher efficiency.

25 toedter-cross-white



1 Q What affects the speed of return flow, how quickly the
2 return flow gets back to the stream?

3 A Okay. Like I related to earlier this morning, the surface
4 return flow returns within the same month. Groundwater
5 return flow is dependent upon the permeability of the
6 soils that you're dealing with.

7 Now, in most areas that we're dealing with here, once
8 they reach equilibrium they would have a reasonably high
9 water table. So, consequently you're going to be heavily
10 dependent upon either subsurface or natural drainage in
11 the area or fluctuating water table all the time. So
12 what you're going to have is you're going to have an
13 equilibrium situation where your water table is high in
14 the fall, and it drops to the spring and starts back up
15 again which gets back again to this distribution analysis
16 that I'm looking at.

17 Q Well, isn't it true that the permeability in the Dinwoody
18 Bench area is illustrated by the 16 percent efficiency?

19 A Yes.

20

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toedter-cross-white



1 Q. The overall efficiency is much greater than the
2 permeability in the North Crowheart area?

3 A. Yes.

4 THE SPECIAL MASTER: What does that tell us? What
5 does that tell us, Mr. Toedter?

6 THE WITNESS: Well, that would actually indicate
7 that if your permeability is higher, the travel of
8 water can go a lot greater distance through the
9 ground before it becomes problematic. In other words,
10 if I were to put -- let's say I had a high water table
11 situation in the North Crowheart area. In order to
12 maintain that water table, I would have to put in series
13 of drains in the ground at a much closer spacing than
14 what would be required in the Upper Wind Unit.

15 THE SPECIAL MASTER: Let's just back up just a
16 little bit. The 15 percent efficiency figure was on
17 Dinwoody --

18 MR. White: Dinwoody Bench. 16.2 really, Your
19 Honor.

20 THE SPECIAL MASTER: 16.2 on Dinwoody Bench,
21 and that same efficiency figure for the west half of
22 the North Crowheart proposed was how much?

23 MR. WHITE: Roughly 50 percent, I believe,
24 Your Honor.

25 toedter-cross-white



1 THE SPECIAL MASTER: Does that mean it is better
2 than three times more efficient to irrigate in North
3 Crowheart than it is to keep Dinwoody Bench going?

4 MR. WHITE: I don't know.

5 THE SPECIAL MASTER: Mr. Toedter?

6 THE WITNESS: I don't know. That is outside of
7 the scope of my study. I'm not testifying --

8 THE SPECIAL MASTER: Well, can a reasonable man
9 conclude that an area that has a 50 percent efficiency
10 will result in a much more feasible irrigation project
11 than will an area that is continued to be irrigated at
12 a 16.2 percent efficiency?

13 MR. CLEAR: Your Honor --

14 THE SPECIAL MASTER: Mr. Toedter.

15 You know, you're -- you're devoting a life as a
16 specialist in this, which is of agricultural systems,
17 of depletions and of return flows.

18 THE WITNESS: Okay. Well, I can only --

19 THE SPECIAL MASTER: And you've been testifying now
20 for a day about complicated formulas that include this
21 co-efficient called the efficiency factor of all farm
22 systems and delivery.

23 THE WITNESS: Actually, you're getting out, you
24 know, outside the scope of --

25 THE SPECIAL MASTER: Your expertise?



1 THE WITNESS: -- my expertise in this particular
2 lawsuit.

3 THE SPECIAL MASTER: Well, okay. Mr. White.

4 MR. WHITE: Let me ask another question, Your
5 Honor.

6 Q (By Mr. White) Mr. Toedter, if you were asked as a
7 general matter as a consultant to a rancher who came
8 into your office in Billings, and he asked you whether
9 or not it was more efficient to irrigate lands for
10 which the overall efficiency was 50 percent, as opposed
11 to lands where the overall efficiency was 16 percent,
12 wouldn't you tell him that it is more efficient to irri-
13 gate the 50 percent lands rather than the 16 percent
14 lands?

15 MR. CLEAR: Objection, Your Honor. Outside the
16 scope of direct examination.

17 THE SPECIAL MASTER: I'm not so sure it is outside
18 the scope of direct examination, Mr. Clear, and if it
19 is, then I have committed the first offense, and not
20 Mr. White.

21 MR. CLEAR: Well, I feel --

22 THE SPECIAL MASTER: One of these months, I have
23 to figure out what is practicably irrigable and what
24 isn't practicably irrigable, and that's going to be
25 toedter-cross-white



1 a lonely old time in my life, and I would like to know
2 that I've got something to rely on in the opinion when
3 I say I don't think an area that takes water at 16.2
4 percent efficiency ought to be given the same credence
5 for a grant of a reserved water right that does have a
6 proposed area at a 50 percent area.

7 MR. CLEAR: Yes, Your Honor, but the North
8 Crowheart area is the --

9 THE SPECIAL MASTER: Is proposed.

10 MR. CLEAR: It is proposed, which involves sprinkler
11 irrigation and a whole new canal system. The other area
12 where you have the 16 percent efficiency is under an
13 existing system. It's the efficiencies which the farmers
14 out there are now getting.

15 THE SPECIAL MASTER: Right.

16 MR. CLEAR: The efficiencies will change your
17 water duty. The proposed systems you have higher costs --
18 and now Mr. White is going to object to the higher costs
19 on the new systems, so -- One of the reasons for the
20 higher efficiencies is the proposed systems using new
21 technology sprinkler systems and pumps and so on and so
22 forth.

23 MR. WHITE: Well, Your Honor, I would love to be
24 able to cross-examine Mr. Clear on this.

25 toedter-cross-white



1 If you're going to sustain the objection, I have
2 no further questions. I just want the issue to be
3 raised firmly in the Master's mind.

4 THE SPECIAL MASTER: What Mr. White is doing with
5 this is he's trying to help me out with my question.

6 I think I'm going to have to keep my own questions
7 in my own little mind until we get in some other witnesses.

8 MR. WHITE: We'll have witnesses to present to
9 address that point.

10 THE SPECIAL MASTER: That's what I'm going to have
11 to do.

12 MR. WHITE: I have no further questions.

13 THE SPECIAL MASTER: Okay. Thanks, Mr. Toedter,
14 for --

15 Go ahead, Mr. White, if you have anything further.

16 MR. WHITE: I think that we didn't get a ruling on
17 the offer of SB-2, 3-A and 3-B, and I offered them,
18 and there was no objection, but I don't think we got
19 a ruling.

20 THE SPECIAL MASTER: Let's make sure that they are
21 in evidence.

22 MR. ECHOHAWK: I think they are in.

23 THE SPECIAL MASTER: I think they are in, Tom.
24 Where is the one page, RFT1?

25 MR. WHITE: And I would also offer for illustrative



1 purposes RFT1, Your Honor.

2 THE SPECIAL MASTER: Yeah. All right.

3 Mr. Clear, you have no objection to these,

4 I presume?

5 MR. CLEAR: No, Your Honor. I think we've already --

6 No.

7 THE SPECIAL MASTER: There is admitted into evidence

8 at this time -- let's take them chronologically --

9 MR. WHITE: I'm sorry, Your Honor, if they were --

10 We just didn't pick them up --

11 THE SPECIAL MASTER: SB-3-B and SB-3-A were

12 admitted yesterday, and the record will so show.

13 Today, let's admit into evidence at this time

14 plaintiff's WRIR RFT1 and Wyoming WRIR SB-2. That's

15 all.

16 (The instruments hereinbefore
17 identified as Exhibits WRIR
18 (RFT1 and WRIR SB-2 were
19 admitted into evidence.

20 MR. CLEAR: Your Honor, we made the offer yesterday
21 of U. S. Exhibit WRIR C-294, and the ruling was withheld
22 until Mr. White finished his cross-examination.

23 THE SPECIAL MASTER: Yeah. It is admitted into
24 evidence also.

25 (The instrument hereinbefore
identified as Exhibit WRIR
C-294 was admitted into evidence.



1 MR. WHITE: Could I have an objection to that,
2 Your Honor?

3 THE SPECIAL MASTER: Yes. Although you recognize
4 you have been working with it for the last hour and
5 a half, but go ahead and make your objection.

6 MR. WHITE: I want to ask the purpose of it, was
7 it for illustrative purposes only?

8 MR. CLEAR: It was for illustrative purposes.

9 MR. WHITE: No objection.

10 THE SPECIAL MASTER: It was in order to keep from
11 confusing the return flow nodes on the other map and
12 from marking up the other map. I brought that on.

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1 THE SPECIAL MASTER: Do we have anything further?

2 MR. WHITE: I have one thing, Your Honor, and
3 that is, I'm starting to get very uncomfortable about
4 the idea of the short time we have to put on our case,
5 and I'm -- while I haven't done a complete analysis,
6 I know it would be very helpful if we could start our
7 case when we start again in September, and I would like
8 to ask the Court if it would be possible to provide
9 that when the Tribes begin their case, which I assume
10 will be Thursday or Friday of next week, they continue
11 on even if we have to go into August a little bit and
12 finish their case so we can begin in September. And
13 at least --

14 THE SPECIAL MASTER: It is a fair enough inquiry.
15 We had hoped that the Tribes may not need more than
16 about one week in Court, Mr. Echohawk.

17 MR. ECHOHAWK: Your Honor, I think the Tribes have
18 many more witnesses now than anybody had originally
19 anticipated. They added a new -- maybe a little complex
20 testimony now. So I think they are going to require
21 some more time. But the thing I'm concerned about is
22 running this case into August. It's going to cut into
23 our time for depositions. We had been banking quite
24 heavily on having that entire month off in order to
25 conduct our discovery. And if we take it all up with



1 trial time, we're going to be in a real bind.

2 THE SPECIAL MASTER: Let's begin next Thursday,
3 the 20th, with your case, if the United States rests.

4 MR. ECHOHAWK: Well, we have Mr. Vogel and the
5 title information to put on.

6 THE SPECIAL MASTER: That will be the 20th.

7 MR. ECHOHAWK: That should be maybe Thursday,
8 and I think we should finish Thursday.

9 THE SPECIAL MASTER: I don't mean the 20th, I mean
10 a week from today, the 17th.

11 We've had some changes since this was put out --
12 I mean the 16th -- I beg your pardon. On the 16th, we
13 begin your case.

14 Are you now -- does the United States now rest its
15 case?

16 MR. CLEAR: No, Your Honor. We have Mr. Vogel
17 and the title information.

18 THE SPECIAL MASTER: When do you propose to put
19 them on?

20 MR. CLEAR: Next Thursday.

21 THE SPECIAL MASTER: And will you have them
22 concluded next Thursday?

23 MR. CLEAR: We think so, Your Honor.

24 MR. ECHOHAWK: We think there is a question with
25 a title witness whether or not she will be available



1 Thursday or Friday, so it may be Friday morning before --

2 THE SPECIAL MASTER: Well, you ought to have
3 her in Thursday if at all possible.

4 MR. ECHOHAWK: I think she has a conflict in
5 schedules.

6 THE SPECIAL MASTER: So that you can begin on the
7 17th as we discussed.

8 MR. PERRY: We'll be ready on Friday, Your Honor.

9 THE SPECIAL MASTER: And that means that you will
10 have the entire week of July the 27th through the 31st.

11 MR. ECHOHAWK: There is just no anticipating how
12 long the Tribes' case is going to take.

13 MR. PERRY: It will depend in large measure on how
14 much cross-examination there will be.

15 THE SPECIAL MASTER: That's true. To some extent
16 you can control a little bit your own destiny on your
17 cross.

18 MR. WHITE: Not a great deal, Your Honor, because
19 the Tribes and the United States have cross during ours.

20 THE SPECIAL MASTER: Maybe I can help control that
21 by a close monitoring of the record and making sure
22 that nothing is approached that is already in the
23 record that would be redundant or repetitive.

24 We'll have the week of July 27th through the 31st
25 for the Indian case, or for the Tribes' case, and also



1 the week of September 1 through 4.

2 MR. WHITE: My concern, Your Honor, is that the
3 case in chief of the United States and the Tribes, it
4 appears to have consumed, by the time it is done, roughly
5 six months, off and on on hearings, and we've got roughly
6 three months to put our case on.

7 THE SPECIAL MASTER: Yeah but, Mr. White, that
8 doesn't add up to equity. The mathematics doesn't hold
9 certain because, you see, I would say half of the time
10 that they used, you used on cross-examination.

11 MR. WHITE: I would like to suggest the following
12 order to the Court: that we have as much time in
13 direct examination as did the Tribes and the United
14 States in direct examination. Therefore, I won't take
15 advantage of any lengthy cross-examination I took of
16 them, and if I could have just the same amount of time,
17 I can't imagine that I could complain about that.

18 THE SPECIAL MASTER: To get back to answer the
19 question you first raised, can we have some time in
20 August for a hearing, I personally would have no
21 no objection to an August hearing, and would have been
22 pleased to set a week or two of August, but it was
23 adamant by all of you, in my opinion, August is a month
24 for family and children and for school --

25 MR. ECHOHAWK: And for depositions.



1 THE SPECIAL MASTER: And before school, and
2 we don't want any hearing, and all of you said so,
3 so I'm going to stick with it.

4 MR. WHITE: That was before your December 18th
5 cutoff.

6 THE SPECIAL MASTER: No. Well, the December 18th
7 cutoff has been -- you know, we're six months beyond
8 the first cutoff of which you proposed, which the case
9 began, so let's stay with it and do what we can, and you
10 are the master of your own time, Mr. White. You have
11 control of your case.

12 MR. WHITE: I just want to have as much time as
13 everybody else.

14 THE SPECIAL MASTER: You will have that.

15 MR. WHITE: That's all I'm asking.

16 THE SPECIAL MASTER: I'm sure you will have that.

17 MR. ECHOHAWK: Your Honor, could I, in regard to
18 the December 18th cutoff, I would just make this one
19 comment: I believe Mr. White has a point that the case
20 has been going on for quite some time, and we are suddenly
21 going to try to cram the rest of the case into just a
22 few months left. I think this case is of such important
23 nature to the people of Wyoming and the people of the
24 United States and especially the Indians that I hate to
25 see it suddenly get all crumpled up at the end, and



1 somebody get short-changed since this is a one-time
2 effort. I think everyone should try to condense the
3 time as much as possible, but look upon the importance
4 of the situation and not have some arbitrary cutoff
5 point, because the United States still, and the Tribes
6 still, and the State still has rebuttal, once the State
7 is done. And obviously, as many complex issues and
8 areas that are concerned, that may, itself, take up a
9 month or so.

10 THE SPECIAL MASTER: I could not agree more with
11 what you're saying. I believe that I have given thought
12 every day of this hearing to exactly what you said.
13 This is a complicated lawsuit. It must require time
14 for it. With the patience of Job we have exerted,
15 I believe, patience I didn't know I was capable of
16 in these proceedings.

17 But the point to the whole judicial establishment
18 and process is that a determination and ending of disputes
19 must be made, not their prolongation ad infinitum, and
20 any case, a class action case, an anti-trust case, and
21 right now this nation is besieged with these long,
22 drawn-out matters, this isn't the only one by any means,
23 must be brought to -- come to an end. I'm not taking
24 unfair advantage of anybody, I'm crimping and cramping
25 everybody's time. I know you're concerned about this,



1 and I would suspect that the United States may be
2 concerned about limitations on rebuttal. I know that
3 Sandy is concerned, but I know that the case has to
4 end. And this part of it isn't going to end the case.

5 What if Judge Joffe decides we're going to have
6 to have some hearings on the permits? You will have
7 a year on that. But this portion of the case has to
8 end, and I believe it is scheduled now fairly and justly.
9 I believe the State has more than adequate time, and
10 that's how I'm ruling. That's how I'm ruling, and I
11 believe you will have more than adequate time for your
12 case. You can't have a case all that much different
13 from what the guardians and your colleagues in this
14 matter have presented over all these many months. Your
15 experts have been worked with in concert. The minute
16 you reconcile your differences in pleadings, you put
17 on the supplemental material or additional material
18 you have, qualifying material you have, but you can't
19 claim a surprise. The facts have been gone into as
20 to your futures, as to what the staff at HKM says are
21 BIA's and what aren't.

22 Am I thinking improperly there?

23 MR. ECHOHAWK: Well, Your Honor, they have -- as
24 I understand it, they have quite a bit of adjustments
25 to Dr. Mesghinna's work, plus --



1 THE SPECIAL MASTER: All right.

2 MR. PERRY: Your Honor, I think --

3 THE SPECIAL MASTER: Let's get into it. Let's
4 get it done, and let's get it done in an efficient,
5 expeditious, fair and economical manner that will be
6 a pride to all of us in this profession. That's
7 what we can do, and we can do this in the time that
8 we have allowed.

9 MR. ECHOHAWK: The concerns also that I think
10 we've got to look at, if we're looking at just three
11 months of hearings to complete essentially part of the
12 Tribes' case, the State's case and all of the rebuttal,
13 is that I know Mr. White's concerned about getting cut
14 off even in his direct presentation. What goes hand
15 in hand in that is the United States and the Tribes
16 getting cut off in their cross-examination, and we
17 have seen Mr. White have weeks at a time with Mr.
18 Billstein in cross-examination, and I think we -- It
19 is only fair that we are entitled to as much cross-
20 examination as necessary.

21 THE SPECIAL MASTER: If the facts warrant it,
22 it will be. If they do not, if the evidence does not
23 warrant it, you won't be.

24 MR. ECHOHAWK: That's exactly my point, but
25 that's why I don't think we need an arbitrary point



1 to cut off.

2 THE SPECIAL MASTER: Yesterday we said we would
3 cross these bridges as we get to them. Let's continue
4 to do that. I think that's all we need to do, gentlemen.

5 MR. WHITE: Your Honor, for the record, I think
6 I need to agree with what Mr. Echohawk said, because
7 simply, I told him off the record that I agreed with
8 him, and I would like to show on the record that I agree.

9 THE SPECIAL MASTER: Thank you, and I agree with
10 all of you. I recognize the crunch that you are in,
11 but I tell you that I'm convinced what I'm doing is in
12 the right direction and is proper, and there is no
13 way this lawsuit is going to end when my report is
14 filed. God, I know that. That's -- the lawsuit just
15 begins then. I can hear the great moans of appeals
16 and petitions for rehearing, and there's no way this
17 can be adjudicated peacefully -- there isn't, but it
18 can be done judicially.

19 All right. Do you have anything else for this
20 morning?

21 MR. WHITE: No, sir, I don't.

22 THE SPECIAL MASTER: All right. And we are going --
23 we will adjourn now until next Thursday morning at 9:15.

24 These rooms are available.

25 (Off-the-record discussion.
(Proceedings recessed at about 10:10 a.m.)



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INDEX TO EXAMINATION

PAGE

WITNESS: ROBERT TOEDTER

Cross-Examination (Resumed) By Mr. White 7711

INDEX TO EXHIBITS

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Exhibit WRIR RFT-1 7737
Exhibit WRIR SB-2 7737
Exhibit WRIR C-294 7737




REPORTER'S CERTIFICATE

1
2 State of Wyoming)
3 County of Laramie) : SS

4 I, Lamont Miller, Registered Professional Reporter
5 and Notary Public in and for the First Judicial District,
6 State of Wyoming, hereby certify that the facts as stated in
7 the caption hereof are true; that I did at the time, date and
8 place, as set forth, report the proceedings had before the
9 Honorable Teno Roncalio, Special Master Presiding, in steno-
10 type; that the foregoing pages, numbered 7708-7747, inclusive,
11 constitute a true, correct and complete transcript of my
12 stenographic notes as reduced to typewritten form under my
13 direction.

14 I further certify that I am not agent, attorney or
15 counsel for any of the parties hereto, nor am I interested
16 in the outcome thereof.

17 Dated this 10th day of July, 1981.

18
19 
20 LAMONT MILLER
21 Registered Professional
22 Reporter

