

EXHIBIT “EE”

1 SUPERIOR COURT OF THE STATE OF CALIFORNIA

2 FOR THE COUNTY OF LOS ANGELES

3 DEPARTMENT NO. 316

HON. JACK KOMAR, JUDGE

4 COORDINATION PROCEEDING)

5 SPECIAL TITLE (RULE 1550B))

6 ANTELOPE VALLEY GROUNDWATER CASES))

JUDICIAL COUNCIL
COORDINATION
NO. JCCP4408

7 PALMDALE WATER DISTRICT AND)
8 QUARTZ HILL WATER DISTRICT,)

SANTA CLARA CASE NO.
1-05-CV-049053

9 CROSS-COMPLAINANTS,)

10 VS.)

11 LOS ANGELES COUNTY WATERWORKS,)
12 DISTRICT NO. 40, ET AL,)

13 CROSS-DEFENDANTS.)
14

15 REPORTER'S TRANSCRIPT OF PROCEEDINGS

16 WEDNESDAY, MARCH 23, 2011

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I N D E X

W I T N E S S E S

| BOLTHOUSE PROPERTIES WITNESS | DIRECT | CROSS | REDIRECT | RECROSS |
|---------------------------------|--------|-------|----------|---------|
|---------------------------------|--------|-------|----------|---------|

N. THOMAS SHEAHAN
(RESUMED)

| | | | | |
|--------------------------|---|-----------|-----|--|
| BY MR. ZIMMER | 1 | | | |
| BY MR. WAYNE LEMIEUX | | 44 | | |
| BY MR. DUNN (RESUMED) | | 76 111 | | |
| BY MR. WEEKS | | 155 | | |
| BY MR. ZIMMER | | | 162 | |

| AGWA WITNESS | DIRECT | CROSS | REDIRECT | RECROSS |
|-----------------|--------|-------|----------|---------|
|-----------------|--------|-------|----------|---------|

EUGENE B. NEBEKER

| | | | | |
|-------------|-----|--|--|--|
| BY MR. FIFE | 170 | | | |
|-------------|-----|--|--|--|

| TEJON RANCH WITNESS | DIRECT | CROSS | REDIRECT | RECROSS |
|------------------------|--------|-------|----------|---------|
|------------------------|--------|-------|----------|---------|

ERICSON JOHN LIST

| | | | | |
|---------------------|-----|--|--|--|
| BY MR. WILLIAM KUHS | 179 | | | |
|---------------------|-----|--|--|--|

E X H I B I T S

BOLTHOUSE PROPERTIES FOR I.D. IN EVIDENCE

| | |
|---|-----|
| C9 - SERIES OF SLIDES (BOOK OF EXHIBITS) | 166 |
|---|-----|

LITTLEROCK FOR I.D. IN EVIDENCE

| | |
|--------------------------------|----|
| L1 - 1PG. DIAGRAM (8.5X11") | 70 |
|--------------------------------|----|

LA COUNTY WATERWORKS FOR I.D. IN EVIDENCE

| | |
|---|-----|
| SCALMANINI 151 - (FROM USGS 2003 REPORT) | 110 |
|---|-----|

| | |
|---|-----|
| SCALMANINI 152 (NEBEKER DECLARATION) | 174 |
|---|-----|

TEJON RANCH FOR I.D. IN EVIDENCE

| | |
|----------------------|-----|
| D46 - CV OF DR. LIST | 176 |
|----------------------|-----|

| | |
|-------------------------|-----|
| D47 - DR. LIST'S SLIDES | 177 |
|-------------------------|-----|

| | |
|-------------------------|-----|
| D48 - COPY OF TABLE C8A | 178 |
|-------------------------|-----|

1 WITHDRAWN ANNUALLY OVER A LONG PERIOD OF TIME IN EXCESS
2 OF THE TOTAL OF SAFE YIELD PLUS TEMPORARY SURPLUS AND
3 WHICH PRODUCES THE UNDESIRABLE RESULT OF GRADUAL
4 LOWERING OF THE GROUNDWATER LEVELS, RESULTING IN THE
5 DEPLETION OF THE SUPPLY.

6 SO WHAT I DID AS PART OF MY ANALYSIS WAS TO
7 APPLY THIS ANALYSIS TO SOME FIVE-YEAR PERIODS, THINKING
8 THAT FIVE YEARS MIGHT BE -- IT IS A SMALL PERIOD, BUT IT
9 IS A REASONABLY LONG PERIOD THAT WOULD ALLOW ME TO MAKE
10 AN ASSESSMENT OF THE OVERDRAFT. AND I DID THAT FOR THE
11 FIVE-YEAR PERIODS ENDING IN 1985 THROUGH 2008. SO IT
12 COVERS THE PERIOD 1980 THROUGH 2008.

13 SO SLIDE 188 IS A TABLE SHOWING THE RESULTS
14 OF THAT ANALYSIS. LET ME JUST WALK YOU THROUGH WHAT IS
15 ON THIS TABLE.

16 THIS IS A CONTINUATION OF THE SAME SET OF
17 TABLES THAT I WAS TALKING ABOUT YESTERDAY, WHERE I
18 DEVELOPED THE NATURAL RECHARGE VALUE, WHICH IS SHOWN ON
19 HERE AS THE 105,000 ACRE-FOOT VALUE IN THE FOURTH COLUMN
20 FROM THE LEFT, AND GOES ACROSS TO THE TOTAL INFLOW MINUS
21 OUTFLOW, OR THAT VALUE THAT I HAVE FOR EACH YEAR.

22 THE COLUMNS THAT I HAVE HIGHLIGHTED IN GREEN
23 ARE THOSE VALUES, THE TOTAL INFLOW MINUS -- AND TOTAL
24 OUTFLOW, IF YOU WILL, BUT AVERAGED OVER FIVE-YEAR
25 PERIODS ENDING IN THE YEAR THAT THE DATA ARE SHOWN IN.

26 FOR EXAMPLE, THE FIRST SET OF NUMBERS ARE
27 SHOWN ON THE ROW OF 1985, AND THOSE REPRESENT AN AVERAGE
28 FOR THE FIVE-YEAR PERIOD ENDING IN 1985.

1 SO FROM THOSE, I CAN POINT TO THE TOTAL
2 INFLOW AND TOTAL OUTFLOW. AND THEN ON LAST COLUMN OVER
3 IS THE DIFFERENCE. IF WE HAVE MORE INFLOW THAN OUTFLOW,
4 THEN WE HAVE SURPLUS. AND THAT IS SHOWN IN BLUE. IF WE
5 HAVE LESS INFLOW THAN OUTFLOW, WE WOULD HAVE A NEGATIVE
6 VALUE, AND THAT WOULD BE SHOWN IN RED.

7 SO MY CALCULATIONS FOR EACH OF THESE FIVE-
8 YEAR PERIODS ENDING IN 1985 THROUGH 2008 SHOW THAT WE
9 HAVE A SURPLUS AMOUNT OF WATER FOR EACH OF THOSE FIVE-
10 YEAR PERIODS. IN OTHER WORDS, FOR EACH OF THOSE FIVE-
11 YEAR PERIODS, THE OUTFLOW WAS LESS THAN THE INFLOW.

12 AND SO IF I CONSIDER THAT TO BE THE CURRENT
13 PERIOD FROM 1980 THROUGH PRESENT, I CAN SAY THAT THERE
14 IS NO OVERDRAFT AND HAS BEEN NO OVERDRAFT IN THE
15 ANTELOPE VALLEY GROUNDWATER BASIN IN ANY OF THE RECENT
16 PERIODS.

17 Q THAT IS BASED SIMPLY ON A COMPARISON OF THE
18 TOTAL INFLOW VERSUS THE TOTAL OUTFLOW IN THOSE FIVE-YEAR
19 BLOCKS?

20 A THAT'S RIGHT. IN EACH OF THOSE FIVE-YEAR
21 BLOCKS, THERE HAS BEEN A SURPLUS OF WATER.

22 Q THAT ANALYSIS, AS YOU TESTIFIED YESTERDAY,
23 IS THAT BASED UPON THE CONSERVATIVE METHOD YOU USED OF
24 ANALYZING IT, WHICH UNDERESTIMATES THE ACTUAL NATURAL
25 RECHARGE?

26 A I BELIEVE IT DOES, YES. I THINK THAT IS A
27 LOW NUMBER, CONSERVATIVELY LOW, BUT SOMEWHAT REALISTIC.

28 Q AND THAT ALSO YOUR ANALYSIS DID NOT TAKE

1 INTO CONSIDERATION SOCIOECONOMIC ISSUES AND MANAGEMENT
2 ISSUES?

3 A IT IS BASED STRICTLY ON WATER SUPPLY ISSUES;
4 THAT'S CORRECT.

5 Q AND WHERE DO WE GO FROM THERE?

6 A LET ME GO TO THE SLIDE 189 JUST A -- WHICH
7 WOULD AGAIN BRING US BACK TO THE CONCEPT OF SAFE YIELD
8 FOR THIS BASIN.

9 THIS SLIDE SUMMARIZES THE BASIS THAT I USED
10 FOR THE DEFINING THE SAFE YIELD, THE LONG-TERM SAFE
11 YIELD. AND THAT WAS DEFINED OVER A 27-YEAR PERIOD,
12 USING THE RETURN FLOWS OVER THAT PERIOD AND THE
13 ARTIFICIAL RECHARGE OVER THAT PERIOD AND THE NATURAL
14 RECHARGE OVER THAT PERIOD.

15 SLIDE 190 THEN SHOWS THE CALCULATION USING
16 THE DATA FOR THAT. THE RETURN FLOWS TOTAL 65,000
17 ACRE-FEET FOR ABOUT -- WELL, YOU CAN SEE THE NUMBERS;
18 BUT MAKING THE CALCULATION, I CAME UP WITH A LONG-TERM
19 AVERAGE SAFE YIELD OF 171,000 ACRE-FEET FOR THE ANTELOPE
20 VALLEY GROUNDWATER BASIN.

21 Q THIS SUMMARIZES THE TOTAL SAFE YIELD YOU
22 DETERMINED, PLUS ALL THE COMPONENT PARTS OF THAT?

23 A YES. NOW, IN MY PREVIOUS ANALYSIS, I LOOKED
24 AT THE SURPLUS THAT WAS AVAILABLE IN THE FIVE-YEAR
25 PERIODS ENDING IN 1985 THROUGH 2008. AND I WOULD LIKE
26 TO ADDRESS THE PERIODS BEFORE THAT BECAUSE I LOOKED AT
27 THOSE AND CONCLUDED THAT THOSE PERIODS ESSENTIALLY ARE
28 WHAT I WOULD CONSIDER TEMPORARY SURPLUS PUMPING.

1 AND AGAIN, RECALL THAT TEMPORARY SURPLUS IS
2 PUMPING IN ADDITION TO THE SAFE YIELD, BUT PUMPING WHICH
3 WOULD CREATE ADDITIONAL GROUNDWATER STORAGE CAPACITY AND
4 AVOID WASTE OF WATER WITHOUT ADVERSELY AFFECTING THE
5 BASIN'S SAFE YIELD.

6 SLIDE 193 SHOWS THE PERIOD THAT I'M
7 REFERRING TO. FOR EACH OF THE YEARS 1971 THROUGH 1981,
8 I BELIEVE IT IS, IF I'M READING THAT RIGHT, THE TOTAL
9 OUTFLOW OF THE BASIN WAS LARGER THAN THE CALCULATED
10 TOTAL INFLOW. THAT RESULTED IN A LOWERING OF THE WATER
11 TABLE DURING THAT TIME AND A NEGATIVE CHANGE IN STORAGE.
12 I DON'T HAVE THE EXACT VALUES FOR THE CHANGE IN STORAGE,
13 BUT THEY WERE THE VALUES THAT I USED IN CALCULATING THE
14 NATURAL RECHARGE.

15 BUT THE FACT IS, THIS PUMPING LOWERED THE
16 WATER TABLE, BUT THEN THE WATER LEVELS LEVELED OUT,
17 ESSENTIALLY, AFTER THAT TIME. SO THIS WAS A TIME WHEN
18 THE GROUNDWATER BASIN WAS BEING PUMPED TO PROVIDE
19 AVAILABLE STORAGE CAPACITY. AND THEN THAT PUMPING DID,
20 IN FACT, PROVIDE AVAILABLE STORAGE CAPACITY.

21 Q DOES IT MATTER WHETHER IT LEVELS OUT? IS
22 THAT IMPORTANT IN YOUR CALCULATION OR YOUR EXPERT
23 OPINION, THAT IT LEVELS OUT?

24 A WELL, IT IS, BECAUSE IT IS NOT PUMPING THAT
25 LED TO THE DEPLETION OF THE SUPPLY. IT WAS PUMPING THAT
26 LOWERED THE WATER TABLE AND CREATED STORAGE CAPACITY AND
27 THEN LEVELED OFF. SO IT IS NOT OVERDRAFT. IT IS
28 TEMPORARY SURPLUS BECAUSE OF THAT BASIS.

1 Q IS THAT THE ONLY BASIS?

2 A NO. THE OTHER BASIS THAT I -- ACTUALLY, TWO
3 OTHER BASES, AND I HAVE THAT ON SLIDE 194. IN ADDITION
4 TO THE CRITERIA OF CREATING ADDITIONAL STORAGE, BY
5 LOWERING THE WATER LEVEL IN THE ANTELOPE VALLEY
6 GROUNDWATER BASIN, IT REDUCED THE HYDROSTATIC HEADS AND
7 THE DIFFERENTIAL HYDROSTATIC HEADS BETWEEN THE WATER IN
8 THE ANTELOPE VALLEY AND THE WATER IN THE ADJACENT MOJAVE
9 BASIN AREA.

10 AS I SHOWED YESTERDAY, THE ADJACENT
11 GROUNDWATER BASIN IS THE EL MIRAGE GROUNDWATER BASIN.
12 WATER HAS BEEN FLOWING FROM THE ANTELOPE VALLEY INTO THE
13 EL MIRAGE BASIN FOR A NUMBER OF YEARS, AS SHOWN BY THE
14 CONTOURS MAPS AND WATER LEVELS, AND SO FORTH.

15 BY REDUCING THE HYDROSTATIC HEAD IN THE
16 ANTELOPE VALLEY, THIS PUMPING OF TEMPORARY SURPLUS UP
17 UNTIL THE EARLY '80S HAS REDUCED THE AMOUNT OF WATER
18 LEAVING THE ANTELOPE VALLEY, AND THEREFORE, IT HAS
19 AVOIDED WASTE OF THAT WATER.

20 Q IN OTHER WORDS, WASTE OF WATER THAT
21 OTHERWISE MIGHT FLOW OUT OF THE BASIN?

22 A THAT IS RIGHT.

23 Q WHAT ABOUT IN THE SURROUNDING MOUNTAINS?
24 DOES THE CHANGE IN HYDROSTATIC HEAD INCREASE HYDRAULIC
25 GRADIENTS AND THEREFORE --

26 THE REPORTER: WOULD YOU PLEASE REPEAT THE
27 QUESTION.

28

1 BY MR. ZIMMER:

2 Q IS IT JUST IN TERMS OF -- THE WASTE, JUST IN
3 TERMS OF THE SOUTHEAST PORTION OF THE BASIN, OR DOES
4 REDUCING THE LEVEL OF WATER IN THE GROUNDWATER BASIN
5 INCREASE THE HYDRAULIC GRADIENT AND THEREFORE PULL EVEN
6 MORE WATER FROM EVERYWHERE SURROUNDING THE WATERSHED?

7 A IT DOES HAVE THAT EFFECT. BY LOWERING THE
8 HYDROSTATIC HEAD OR THE WATER LEVELS IN THE ANTELOPE
9 VALLEY GROUNDWATER BASIN, WE INCREASE THE GRADIENT
10 BETWEEN THE MOUNTAIN FRONT RECHARGE AREAS AND THE
11 ANTELOPE VALLEY ALLUVIUM, WHICH TENDS TO INCREASE THE
12 RATE OF FLOW OF NATURAL RECHARGE INTO THE GROUNDWATER
13 BASIN.

14 ALTHOUGH WE DO ENHANCE THAT NATURAL
15 RECHARGE, IT DOES NOT AFFECT THE CALCULATED SAFE YIELD
16 THAT I HAVE CALCULATED BECAUSE THE SAFE YIELD I'VE
17 CALCULATED WAS BASED ON A 27-YEAR PERIOD WHERE WE HAVE
18 RELATIVELY UNIFORM CONDITIONS. SO MY SAFE YIELD VALUE
19 HAS TAKEN THAT INTO ACCOUNT.

20 SO I CAN SAY THAT THE TEMPORARY SURPLUS DID
21 NOT ADVERSELY AFFECT THE BASIN SAFE YIELD.

22 Q AND DIDN'T LEAD TO DEPLETION OF THE SUPPLY?

23 A THAT IS CORRECT.

24 Q WHERE DOES THAT TAKE US TO?

25 A I'M LOOKING AT SLIDE 195. AND AGAIN, THIS
26 IS JUST SUMMARIZING WHAT I HAVE BEEN TRYING TO DESCRIBE
27 ORALLY; THAT BASED ON THE DATA IN TABLE 4.8-1, WHICH IS
28 FROM THE PURVEYORS' EXPERTS, THE SAME DATA THAT WE HAVE

1 BEEN USING, THE TEMPORARY SURPLUS THAT WAS BEING PUMPED
2 EACH YEAR FROM 1971 THROUGH THE EARLY 1980S -- AND I
3 WOULD SAY THROUGH 1981 -- CORRESPONDS WITH THE LOWERING
4 OF THE WATER TABLE THAT IS REFLECTED BY THE NEGATIVE
5 VALUES FOR CHANGE IN STORAGE.

6 ALTHOUGH I DON'T AGREE THAT THE VALUES ARE
7 CORRECT, THE FACT THAT WE HAVE SEEN NEGATIVE VALUES IS
8 CORRECT BECAUSE WE HAVE BEEN REDUCING STORAGE DURING
9 THAT TIME. BUT FOR THE LAST 20 YEARS PRIOR TO THE START
10 OF THIS CASE, AT ANY RATE, THE WATER LEVELS HAVE BEEN
11 RELATIVELY FLAT, INDICATING THAT THERE HAVE ONLY BEEN
12 SMALL CHANGES IN STORAGE.

13 I'M GOING TO SLIDE 196. AND I BELIEVE I
14 HAVE ALREADY SHOWN THIS SAME SLIDE, BUT THIS IS SHOWING
15 THE PERIOD DURING -- THE 20-YEAR PERIOD PRIOR TO WHEN WE
16 STARTED THIS -- WHEN I STARTED THIS CASE, AT ANY RATE,
17 WHEN THE WATER LEVELS WERE RELATIVELY FLAT.

18 Q SO WHAT WE ARE TALKING ABOUT HERE IS, THIS
19 PERIOD -- THIS SHARP DECLINE HERE, PUMPING OUT TEMPORARY
20 SURPLUS. AFTER THAT, WE HAD AT LEAST 20 YEARS OF
21 RELATIVELY FLAT WATER LEVELS, WITHOUT ANY SIGNIFICANT
22 CHANGE IN STORAGE?

23 A THAT IS RIGHT. AND ALTHOUGH WE DID PULL THE
24 WATER LEVEL DOWN DURING THIS TIME, THERE'S THE BENEFIT
25 OF THAT IN THAT WE HAVE CREATED AVAILABLE STORAGE
26 CAPACITY TO INCREASE THE NATIVE RECHARGE AND TO ALLOW
27 RETURN FLOWS AND ALLOW RECHARGE OF WATER INTO THE
28 GROUNDWATER BASIN AND TO AVOID WASTE OF WATER. THERE

1 HAS BEEN OTHER WASTE THAT HAS BEEN AVOIDED BY PULLING
2 THE WATER LEVELS DOWN.

3 Q IN ADDITION TO THAT, WE'VE TALKED ABOUT THIS
4 PERIOD OF TIME AFTER 1998. THAT IS THE PERIOD THAT HAS
5 MANIFESTLY -- MANIFESTED PROBLEMS IN TERMS OF THE CHANGE
6 IN STORAGE CALCULATIONS THAT WE TALKED ABOUT A COUPLE OF
7 TIMES YESTERDAY.

8 A THAT IS RIGHT; THAT IS RIGHT. AND I POINTED
9 OUT ON ANOTHER SLIDE THE FACT THAT WE HAVE BEEN IN KIND
10 OF A DROUGHT CONDITION DURING THAT PERIOD.

11 Q WE'VE BEEN IN KIND OF A DROUGHT CONDITION
12 FROM '98 ON, AND WE HAVE CHANGE OF STORAGE. OBVIOUS
13 MATHEMATICAL PROBLEMS THERE?

14 A YES, THAT IS CORRECT.

15 SO AGAIN, IN SUMMARY, 197, THE PUMPING OF
16 TEMPORARY SURPLUS PRIOR TO THE EARLY 1980S HAS CREATED
17 SUFFICIENT GROUNDWATER STORAGE TO ALLOW COLLECTION OF
18 NATURAL RECHARGE AND TO PROVIDE THE ABILITY TO STORE
19 WATER BY CURRENT AND FUTURE ARTIFICIAL RECHARGE. SO WE
20 NOW HAVE A STORAGE SPACE AVAILABLE IN THE GROUNDWATER
21 BASIN THAT WE CAN USE FOR THOSE PURPOSES.

22 Q NOW, IF YOU WERE JUST STORING WATER, YOU
23 COULD CREATE A CONDITION, IF YOU DIDN'T HAVE ENOUGH
24 SPACE WHERE YOU COULD STORE WATER, BUT IT WOULD STILL
25 ALLOW WASTE -- FOR EXAMPLE, TO THE SOUTHEAST, INTO
26 ANOTHER BASIN?

27 A YES. AND THERE STILL MAY BE WATER GOING OUT
28 THERE, PARTLY DUE TO NATURAL DIFFERENTIAL HEADS BETWEEN

1 SHOW THE IMPACT OF THE CHANGES IN LAG TIME. AND I HAVE
2 A SLIDE THAT I PRESENTED THAT SHOWS THAT.

3 Q NOW, IN ANY OF THE WORK THAT YOU DID, DID
4 YOU REDO THE ANALYSIS THAT WAS DONE BY THE PUBLIC WATER
5 SUPPLIERS USING THEIR -- USING A FIVE-YEAR LAG TIME? IN
6 OTHER WORDS, DID YOU REDO THEIR SPECIFIC CALCULATIONS
7 BUT SUBSTITUTING YOUR FIVE-YEAR LAG TIME?

8 A I BELIEVE I DID. I BELIEVE THAT IS ON ONE
9 OF MY TABLES.

10 Q DID YOU USE THEIR BASE PERIOD TO DO THAT?

11 A YES.

12 Q OKAY. AND YOU USED ALL THE SAME INPUT AND
13 OUTPUT TO THEN DO CHANGE OF STORAGE ESTIMATES THAT YOU
14 DESCRIBED EARLIER?

15 A I BELIEVE SO, YES.

16 Q SO ALL OTHER THINGS BEING EQUAL, YOU ONLY
17 CHANGED THE LAG TIME TO FIVE YEARS?

18 A I BELIEVE THAT IS CORRECT.

19 Q YOU SAID THAT YOU HAD A SLIDE THAT SHOWS
20 THAT?

21 A I BELIEVE I DO.

22 Q CAN WE SEE THAT, PLEASE.

23 A IT WILL TAKE ME A MOMENT --

24 Q SURE.

25 A -- BUT I THINK I CAN FIND THAT.

26 Q SURE.

27 MR. WILLIAM KUHS: YOUR HONOR, AS A POINT OF
28 CLARIFICATION, IS COUNSEL TALKING ABOUT LAG TIME ONLY

1 FOR AGRICULTURAL RETURN FLOWS? BECAUSE THERE ARE OTHER
2 LAG TIMES.

3 MR. DUNN: I BELIEVE THE WITNESS HAS ONLY
4 DESCRIBED ONE LAG TIME.

5 MR. WILLIAM KUHS: THAT'S NOT MY RECOLLECTION OF
6 HIS TESTIMONY. BUT IN ANY EVENT, HE'S ASKED THE
7 QUESTION. IT'S VAGUE. I'LL OBJECT ON VAGUENESS.

8 THE COURT: SO THIS WASN'T A PEREMPTORY KIND OF
9 OBJECTION?

10
11 (LAUGHTER.)
12

13 MR. WILLIAM KUHS: I USE THOSE SPARINGLY, YOUR
14 HONOR.

15 THE COURT: OVERRULED.

16 THE WITNESS: I HAVE PUT MY EXHIBIT 126 UP ON THE
17 SCREEN. THIS IS -- LET ME MAKE SURE I'M LOOKING AT THE
18 RIGHT THING. THIS IS WHAT I HAVE TITLED "RECONSTRUCTION
19 OF TABLE 4.8-1," AND THIS IS USING A LAG TIME OF FIVE
20 YEARS.

21 DOWN IN THE LOWER PORTION OF THIS EXHIBIT IS
22 ANOTHER TABLE THAT HAS THE RESULTS OF THAT. AND I'M
23 GOING TO GO TO SLIDE 127 THAT BLOWS UP THAT PORTION OF
24 THE TABLE.

25 AND IF WE LOOK AT THE VERY TOP LINE OF DATA
26 IN THAT TABLE -- I'M SORRY; WELL, MAYBE I'M INCORRECT.
27 I'M SORRY. I HAVE TO APOLOGIZE. I AM INCORRECT.

28 I LOOKED AT THOSE PERIODS FROM 1951 ALL THE

1 WAY THROUGH 2005, BUT IN THIS TABLE, I DIDN'T COMBINE
2 THEM ALL.

3 BY MR. DUNN:

4 Q ALL RIGHT.

5 A SO I CORRECT MY TESTIMONY.

6 Q OKAY. GOOD.

7 A I DIDN'T COMBINE THEM ALL, BUT I COULD, WITH
8 A CALCULATOR, TAKE THE NUMBERS THAT I SHOW IN THE UPPER
9 PART OF THAT TABLE AND COME UP WITH THAT RESULT.

10 Q BUT YOU HAVEN'T DONE THAT, AND YOU DIDN'T
11 TESTIFY --

12 A IT'S JUST A MATTER OF ADDING THEM TOGETHER
13 AND DIVIDING BY THE NUMBER OF YEARS.

14 Q NOW, THE OTHER CORRECTION, AS YOU CALL IT,
15 THAT YOU MADE WAS TO SUBSTITUTE YOUR ESTIMATE OF NATURAL
16 RECHARGE FOR THE ESTIMATE OF NATURAL RECHARGE BY THE
17 PUBLIC WATER SUPPLIERS' GROUP; IS THAT CORRECT?

18 A NO, I DON'T BELIEVE THAT IS CORRECT.

19 Q ALL RIGHT. LET ME BACK UP.

20 FOR YOUR WATER BALANCE, YOU TOOK THE DATA
21 INPUTS AND OUTPUTS FROM THE PUBLIC WATER SUPPLIERS'
22 REPORTS; CORRECT?

23 A YES.

24 Q INCLUDING THE CHANGE OF STORAGE?

25 A YES.

26 Q ALL RIGHT. AND YOU MADE WHAT YOU CALL TWO
27 CORRECTIONS?

28 A YES.

1 Q ONE WAS LAG TIME?

2 A THAT IS CORRECT.

3 Q AND WE HAVE ASKED SOME QUESTIONS ABOUT THAT.
4 THE SECOND CORRECTION WAS BASE PERIOD?

5 A YES.

6 Q AND YOUR BASE PERIOD WAS 1971 TO 1997?

7 A YES.

8 Q ALL RIGHT. NOW, WHEN YOU USED YOUR BASE
9 PERIOD, THAT DERIVED A SEPARATE -- OR EXCUSE ME.

10 YOU DERIVED FROM YOUR BASE PERIOD YOUR OWN
11 ESTIMATE OF NATURAL RECHARGE; IS THAT CORRECT?

12 A YES.

13 Q AND THAT WAS ABOUT 106,000 ACRE-FEET A YEAR?

14 A ABOUT 105,000.

15 Q ABOUT 105,000.

16 A I BELIEVE THE NUMBER WAS 105,308 IN THE
17 TABLE. AGAIN, IT'S APPROXIMATELY 105,000.

18 Q ALL RIGHT. AND WITH THE WORK THAT YOU DID
19 IN YOUR WATER BALANCE, WITH YOUR ESTIMATE OF NATURAL
20 RECHARGE AND YOUR FIVE-YEAR LAG TIME, YOU DID SOME
21 CHECKING OF THAT, I THINK. YOU LOOKED TO SEE IF IT WAS
22 REASONABLE; IS THAT RIGHT?

23 MR. ZIMMER: THAT KIND OF MISSTATES HIS TESTIMONY.
24 IT MAY BE ARGUMENTATIVE BECAUSE HE SAID "YOUR FIVE-YEAR
25 LAG TIME." I'M ASSUMING IT'S WHAT HE USED. IT WAS
26 ACTUALLY GRISMER OR ORO GRANDE OR HYDRUS.

27 THE COURT: WELL, I THINK YOU CAN REPHRASE YOUR
28 QUESTION AND MAKE IT LESS ARGUMENTATIVE.

1 MR. DUNN: YES.

2 Q ONCE YOU TOOK THE DATA FROM THE PUBLIC WATER
3 SUPPLIERS AND DID YOUR CALCULATIONS WITH YOUR OWN BASE
4 PERIOD OF -- SORRY, 1971 TO 1997 AND A FIVE-YEAR LAG
5 TIME THAT YOU CAME UP WITH --

6 A YES.

7 Q ALL RIGHT. YOU CAME UP -- ULTIMATELY, YOU
8 DERIVED YOUR OWN ESTIMATE OF NATURAL RECHARGE?

9 A WELL, I MADE A CALCULATION OF NATURAL
10 RECHARGE BASED ON THE PURVEYORS' EXPERTS' DATA THAT I
11 USED FOR THAT TIME PERIOD WITH THAT LAG TIME.

12 Q ALL RIGHT. AND WITH A BASE PERIOD OF 1971
13 TO 1997?

14 A YES, A 27-YEAR BASE PERIOD.

15 Q JUST TO MOVE THROUGH THIS QUICKLY, YOU CAME
16 UP WITH A DIFFERENT ESTIMATE FROM THE PUBLIC WATER
17 SUPPLIERS. YOURS IS HIGHER, AT 105,000 ACRE-FEET A
18 YEAR; IS THAT CORRECT?

19 A MINE IS 105,000, BASED ON THE LAG TIME AND
20 BASE PERIOD. THEIRS IS A DIFFERENT NUMBER, BASED ON A
21 DIFFERENT LAG TIME AND A DIFFERENT BASE PERIOD.

22 Q AND DID YOU TEST THE ESTIMATE OF NATURAL
23 RECHARGE THAT YOU CAME UP WITH, WITH SOME OF YOUR OTHER
24 WORK INVOLVING CHANGE IN STORAGE, FOR EXAMPLE?

25 MR. SLOAN: OBJECTION, VAGUE.

26 THE WITNESS: I'M NOT SURE THAT I UNDERSTAND THAT.
27 I CAN TRY TO EXPLAIN WHAT I DID. YOU MENTIONED
28 REASONABLENESS, AND THERE WERE A COUPLE OF ITEMS OF MY

1 CALCULATIONS THAT I ADJUSTED FOR REASONABLENESS, BUT
2 THEY WEREN'T THE NATIVE RECHARGE OR THE CHANGE IN
3 STORAGE.

4 BY MR. DUNN:

5 Q WELL, LET'S LOOK AT, IF WE COULD, FOR A
6 MOMENT -- LET'S GO TO PAGE 95, IF WE COULD, ON THE
7 SLIDES.

8 A YES.

9 Q YOU PREPARED PAGE 95?

10 A YES.

11 Q OKAY. AND MY QUESTIONS FOCUS ON THE GREEN
12 DOTS AND THEN THE HORIZONTAL GREEN LINE. WHAT DOES THAT
13 SHOW?

14 A THE HORIZONTAL GREEN LINE SHOWS THE AVERAGE
15 CHANGE IN STORAGE OVER THE PERIOD 1998 TO 2008. THE
16 GREEN DOTS SHOW THE CUMULATIVE CHANGE IN STORAGE OVER
17 THAT TIME STARTING IN 1998.

18 Q AND WHO DID THIS ANALYSIS?

19 A WHO CREATED THIS FIGURE?

20 Q YES.

21 A I DID THIS FIGURE.

22 Q SO THESE ARE YOUR ESTIMATES OF CHANGE IN
23 STORAGE?

24 A THESE ARE THE ESTIMATES OF CHANGE IN STORAGE
25 DONE BY MR. WILDERMUTH THAT I USED TO CREATE THIS
26 FIGURE.

27 Q ALL RIGHT. IT SHOWS A LOT OF CHANGE OF
28 STORAGE, THE GREEN DOTS, FROM 1998 THROUGH 2008; IS THAT

1 CORRECT?

2 A WELL, IT SHOWS WHAT IT SHOWS. IT SHOWS THAT
3 THERE IS A -- THERE IS A CHANGE IN STORAGE DURING THAT
4 TIME, BEGINNING IN 1998 -- CUMULATIVE CHANGE IN STORAGE.

5 Q NOW, IF WE GO TO PAGE 185 -- COULD WE GO
6 THERE QUICKLY?

7 A QUICKLY? I'M NOT SURE. BUT ALL RIGHT.

8 Q AS FAST AS WE CAN, THEN.

9 A 185?

10 Q YES, PLEASE.

11 A ALL RIGHT. I HAVE THAT.

12 Q ALL RIGHT. NOW, YOU PREPARED THIS SLIDE; IS
13 THAT CORRECT?

14 A YES.

15 Q THE GREEN SHADED AREA FROM 1971 THROUGH 1997
16 REFLECTS THE BASE PERIOD THAT YOU SELECTED?

17 A YES.

18 Q ALL RIGHT. AND THEN THERE'S -- IN THE
19 MIDDLE, UNDER THE TITLE "YEARLY CALCULATIONS," YOU HAVE
20 "TOTAL INFLOW" AND, PARENTHETICALLY, "SAFE YIELD." DO
21 YOU SEE THAT?

22 A YES.

23 Q IT'S ALSO SHADED GREEN AS WELL?

24 A YES, THAT'S THAT TRUE.

25 Q NOW, THERE ARE A NUMBER OF YEARS THERE. FOR
26 EACH YEAR FROM 1971 THROUGH 1997, THERE IS A
27 CORRESPONDING RESULT WHERE IT SAYS "TOTAL INFLOW MINUS
28 OUTFLOW." DO YOU SEE THAT?

1 A YES.

2 Q THAT IS DONE ON AN ANNUAL BASIS?

3 A THAT'S CORRECT.

4 Q AND SOME OF THE NUMBERS THERE ARE
5 PARENTHETICALLY INSERTED. I TAKE IT THAT'S A NEGATIVE
6 OR A MINUS?

7 A YES, THAT'S RIGHT.

8 Q SO FOR EXAMPLE, THE FIRST ONE THAT'S LISTED
9 THERE PARENTHETICALLY, 138,063, THAT IS A NEGATIVE
10 OUTFLOW?

11 A THAT IS A NEGATIVE VALUE OF TOTAL INFLOW
12 MINUS OUTFLOW, YES. IT'S A NEGATIVE VALUE.

13 Q FOR THAT PARTICULAR YEAR, 1971, OUTFLOW IS
14 GREATER THAN INFLOW?

15 A YES.

16 Q BY THAT AMOUNT?

17 A YES -- BY THESE DATA.

18 Q AND AS I UNDERSTAND YOUR TESTIMONY, YOU DID
19 YOUR OWN CHANGE OF STORAGE ANALYSIS, USING YOUR BASE
20 PERIOD?

21 A NO, THAT IS NOT CORRECT. I SELECTED A BASE
22 PERIOD THAT USED THE CHANGE OF STORAGE DATA PRODUCED BY
23 MR. WILDERMUTH BUT WHICH PRODUCED AN OVERALL MINIMUM
24 CHANGE IN STORAGE FOR THE LONGEST BASE PERIOD I COULD
25 COME UP WITH.

26 Q NOW, FOR EACH OF THE YEARS 1971 THROUGH 1997
27 IN YOUR BASE PERIOD, YOU USED AS THE AVERAGE NATURAL
28 RECHARGE YOUR ESTIMATE OF 105,308. DO YOU SEE THAT?

1 A YES.

2 Q THAT IS, IN FACT, YOUR ESTIMATE OF THE
3 NATURAL RECHARGE FOR THE BASIN, BASED ON YOUR BASE
4 PERIOD; IS THAT CORRECT?

5 A AND BASED ON THESE DATA, YES.

6 Q OKAY. MY QUESTION FOR YOU, MR. SHEAHAN, IS,
7 DID YOU SUM OR ADD UP THE TOTAL INFLOWS AND OUTFLOWS FOR
8 EVERY YEAR FROM 1971 THROUGH 1997 TO CHECK YOUR
9 ESTIMATES OF YOUR WORK IN THIS CASE?

10 A WHAT WORK ARE YOU TALKING ABOUT?

11 Q WELL, DID YOU, FOR EXAMPLE, ADD UP THE TOTAL
12 OUTFLOWS AND INFLOWS AS INDICATED FROM 1971 THROUGH
13 1997?

14 A YES.

15 Q OKAY. AND NOW, MY NUMBERS SHOW THAT IF YOU
16 ADD ALL THE NEGATIVE NUMBERS, IT COMES UP WITH A
17 NEGATIVE 863,359. I DON'T KNOW IF THAT MATH IS EXACTLY
18 RIGHT, BUT IS THAT CONSISTENT WITH YOUR ANALYSIS?

19 MR. ZIMMER: VAGUE.

20 THE COURT: IT'S OVERRULED.

21 THE WITNESS: ARE YOU TALKING ABOUT THESE
22 DIFFERENCES ON THE RIGHT-HAND SIDE?

23 BY MR. DUNN:

24 Q YES, JUST THE NEGATIVE NUMBERS.

25 A NO, I DIDN'T ADD THOSE UP. I HAD NO NEED TO
26 ADD THOSE UP FOR THIS ANALYSIS. I ADDED UP THE NUMBERS
27 THAT ARE SHOWN HIGHLIGHTED IN GREEN. I THOUGHT YOU WERE
28 REFERRING TO THE ONES I HIGHLIGHTED AND MADE VERY

1 OBVIOUS.

2 Q NO. WHAT I'M ASKING, MR. SHEAHAN, IS, IF WE
3 LOOK AT THE RIGHT-HAND COLUMN, THE TOTAL INFLOW MINUS
4 OUTFLOW --

5 A YES.

6 Q -- IF WE ADD UP ALL THE YEARS WITH NEGATIVE
7 OUTFLOW, I COME UP WITH 863,359. DO YOU HAVE ANY REASON
8 TO DISAGREE WITH THAT?

9 A I HAVE NO REASON TO DISAGREE WITH IT.

10 Q AND THEN THAT WOULD BE FROM YEARS 1971
11 THROUGH 1981, INCLUSIVE. AND THEN IF WE START, THEN,
12 WITH 1982 AND THEN ADD UP THE POSITIVE NUMBERS UP TO
13 1997, THE END OF YOUR BASE PERIOD, I COME UP WITH A
14 POSITIVE NUMBER --

15

16 (DISCUSSION HELD OFF THE RECORD.)

17 BY MR. DUNN:

18 Q THE POSITIVE NUMBERS FROM 1981 THROUGH 1997
19 TOTAL 609,449. DO YOU ANY REASON TO DISAGREE WITH THAT?

20 A NOT RIGHT NOW. I HAVEN'T ADDED THOSE UP,
21 SPECIFICALLY, BUT I DON'T HAVE ANY REASON TO DISAGREE
22 WITH IT.

23 Q WHEN WE COMPARE THE POSITIVE NUMBERS WITH
24 THE OVERALL NEGATIVE NUMBERS, I COME UP WITH A MINUS
25 FROM 1971 THROUGH 1997, INCLUSIVE, AN OVERALL LOSS OF --
26 OR NEGATIVE AMOUNT OF 253,910 ACRE-FEET. DO YOU HAVE
27 ANY REASON TO DISAGREE WITH THAT MATH?

28 A NO.

1 Q IF I DIVIDE THAT BY 27 YEARS, IT COMES UP
2 FOR THE ENTIRE BASE PERIOD WITH AN OVERALL AVERAGE
3 ANNUAL LOSS OR NEGATIVE OUTFLOW OF 9,404 ACRE-FEET. DO
4 YOU HAVE ANY REASON TO DISAGREE WITH THAT?

5 A NOT AS I SIT HERE. I HAVEN'T DONE THAT, BUT
6 NO, I DON'T HAVE ANY REASON TO DISAGREE WITH THAT.

7 Q NOW, I BELIEVE -- WELL, STRIKE THAT.

8 GOING BACK NOW FOR JUST A MOMENT TO THE LAG
9 TIME. DID YOU CHECK YOUR FIVE-YEAR ESTIMATE OF LAG TIME
10 WITH ANY OF THE WORK DONE BY THE USGS IN THE ANTELOPE
11 VALLEY?

12 MR. WILLIAM KUHS: OBJECTION. IT'S VAGUE BECAUSE
13 IT DOESN'T INDICATE LAG ON AGRICULTURAL RETURN FLOWS,
14 LAG ON M & I FLOWS, LAG ON SEWAGE TREATMENT FLOWS.

15 THE COURT: OVERRULED.

16 YOU CAN ANSWER THE QUESTION.

17 THE WITNESS: I'M NOT AWARE OF ANY SPECIFIC
18 STUDIES IN THE ANTELOPE VALLEY ON LAG TIME. THE ONLY
19 STUDIES -- BY THE USGS. THE ONLY STUDIES I'M AWARE OF
20 ARE THE STUDY BY MR. GRISMER AND THE STUDY BY -- I
21 BELIEVE IT WAS MR. WANG, AT THE WILDERMUTH COMPANY, THE
22 HYDRUS II STUDY.

23 AND THE THIRD STUDY I'M AWARE OF WAS THE LAG
24 TIME CALCULATED FOR THE ORO GRANDE AREA BY THE US
25 GEOLOGICAL SURVEY JUST TO THE EAST OF US IN THE MOJAVE
26 BASIN.
27 BY MR. DUNN:

28 Q MR. SHEAHAN, IN THE USGS STUDIES THAT YOU

1 A I THINK THAT IS ABOUT RIGHT. I'LL ACCEPT
2 THAT AS BEING TRUE.

3 Q IN 1997, 46,768 ACRE-FEET OF WATER WAS
4 IMPORTED?

5 MR. ZIMMER: NO FOUNDATION.

6 THE WITNESS: I DON'T KNOW THAT NUMBER, AS I SIT
7 HERE. IF YOU WOULD LIKE ME TO REVIEW YOUR DATA, I WOULD
8 BE HAPPY TO.

9 BY MR. WEEKS:

10 Q DO YOU HAVE ANY REASON TO DISAGREE WITH THAT
11 NUMBER?

12 MR. ZIMMER: NO FOUNDATION.

13 THE COURT: WELL, OVERRULED.

14 YOU MAY ANSWER THE QUESTION.

15 THE WITNESS: I HAVE NO REASON TO DISAGREE WITH IT
16 BECAUSE I DON'T HAVE THE NUMBER IN FRONT OF ME.

17 BY MR. WEEKS:

18 Q KEEPING ALL OTHER FACTORS THE SAME IN YOUR
19 ANALYSIS, IF NO WATER WAS IMPORTED BETWEEN 1971 AND
20 1997, THERE WOULD HAVE BEEN A NEGATIVE CHANGE IN
21 STORAGE, WOULDN'T THERE?

22 MR. ZIMMER: RELEVANCE.

23 THE COURT: OVERRULED.

24 THE WITNESS: IF WE WERE TO CHANGE THE AMOUNT OF
25 WATER IMPORTED IN MY ANALYSIS, IT WOULDN'T CHANGE THE
26 CHANGE IN STORAGE NUMBERS AT ALL BECAUSE THE CHANGE IN
27 STORAGE NUMBERS WERE SEPARATELY DETERMINED.

28 IT WOULD HAVE CHANGED THE ANALYSIS OF

1 NATURAL RECHARGE, AND IT WOULD HAVE REDUCED THE TOTAL
2 AMOUNT OF INFLOW, WHICH WOULD HAVE CREATED A LARGER
3 NATURAL RECHARGE THAN I CALCULATED, SO IT WOULD HAVE
4 AFFECTED IT IN THAT WAY.

5 BY MR. WEEKS:

6 Q ON PAGE 12, IF YOU WOULD TAKE A LOOK AT THE
7 COLUMN TITLED "TOTAL RETURN FLOWS."

8 A YES.

9 Q IN THAT COLUMN OF TOTAL RETURN FLOWS, THAT
10 INCLUDES RETURN FLOWS FROM IMPORTED WATER?

11 A YES.

12 Q AND IF WE WERE TO RECALCULATE -- IF WE WERE
13 TO RECALCULATE THE TOTAL INFLOWS MINUS OUTFLOWS IN THE
14 CHART ON PAGE 212, BUT WE DIDN'T INCLUDE THE IMPORTED
15 WATER ON THE RETURN FLOWS, THEN THAT WOULD INCREASE
16 THE -- OR I'M SORRY, IT WOULD -- IT WOULD DECREASE THE
17 AMOUNT OF SURPLUS YOU HAVE REFLECTED ON THAT PAGE,
18 WOULDN'T IT?

19 A MAY I JUST SAY, IF I UNDERSTAND YOUR
20 QUESTION, YOU ARE SUGGESTING THAT I WOULD CONTINUE TO
21 USE THE ARTIFICIAL IMPORTED WATER IN MY CALCULATION OF
22 NATURAL RECHARGE.

23 Q NO, IT'S THE OTHER WAY, DOCTOR. WE --

24 A EXCUSE ME. LET ME FINISH, BECAUSE WHAT I'M
25 UNDERSTANDING YOU TO SAY IS THAT I WOULD KEEP THE SAME
26 NATURAL RECHARGE, WHICH MEANS THAT I WOULD HAVE TO
27 INCLUDE THE IMPORTED WATER AS INFLOW AS PART OF THE
28 CALCULATION OF NATURAL RECHARGE AND THEN GO BACK AND

1 CHANGE IT TO NOT INCLUDE THE ARTIFICIAL RECHARGE FOR THE
2 PURPOSE OF ESTABLISHING WHETHER THE INFLOW AND OUTFLOW
3 DIFFERENCE WAS THE SAME. I FIND THAT TO BE VERY
4 CONFUSING AND --

5 Q WHAT I'M ASKING YOU TO DO IS KEEP -- ASSUME
6 ALL THE OTHER FACTORS ARE THE SAME ON THIS PAGE.

7 A AND THAT'S WHY I SAID CAN I ASSUME, THEN,
8 THAT WE HAVE INCLUDED THE IMPORTED WATER IN THE
9 CALCULATION OF NATURAL RECHARGE?

10 Q WELL, ASSUMING EVERYTHING IS THE SAME HERE
11 EXCEPT YOU ARE SUBTRACTING FROM RETURN FLOWS IMPORTED
12 WATER. THAT IS MY HYPOTHETICAL.

13 A ALL RIGHT.

14 Q SUBTRACTING RETURN FLOWS -- I'M SORRY,
15 SUBTRACTING IMPORTED WATER FROM THE RETURN FLOWS. THE
16 EFFECT OF SUBTRACTING IMPORTED WATER FROM RETURN FLOWS
17 WOULD BE TO DECREASE THE SURPLUS YOU HAVE LISTED IN THE
18 FAR-RIGHT COLUMN?

19 MR. ZIMMER: IRRELEVANT; MISSTATES HIS TESTIMONY.
20 HE HAS DONE A SAFE YIELD ANALYSIS HERE, NOT JUST A
21 SURPLUS ANALYSIS.

22 THE COURT: WELL, HE INCLUDES ARTIFICIAL RECHARGE
23 IN HIS CALCULATIONS.

24 MR. WEEKS: I'M NOT TALKING ABOUT ARTIFICIAL
25 RECHARGE, YOUR HONOR. I'M REFERRING TO RETURN FLOWS.

26 THE COURT: YOU CAN'T HAVE RETURN FLOWS FROM
27 ARTIFICIAL RECHARGE UNLESS YOU HAVE ARTIFICIAL RECHARGE.

28 MR. WEEKS: YOUR HONOR, PART OF THE RETURN FLOWS

1 ON THAT CHART IS RETURN FLOWS FROM IMPORTED WATER.

2 MR. WILLIAM KUHS: I'LL FURTHER OBJECT, YOUR
3 HONOR, ON THE BASIS IT'S BEYOND THE SCOPE OF THIS TRIAL.

4 MR. WEEKS: WELL, THE ISSUE HERE IS -- THIS
5 WITNESS IS TESTIFYING ABOUT A SAFE YIELD.

6 THE COURT: I THINK THAT -- I DON'T UNDERSTAND
7 YOUR QUESTION. I DON'T THINK THE WITNESS UNDERSTANDS
8 YOUR QUESTION. SO WHY DON'T YOU REPHRASE IT IN A WAY
9 THAT MAYBE HE CAN UNDERSTAND IT, EVEN IF I CAN'T.

10 MR. WEEKS: OKAY.

11 Q A COMPONENT OF THE TOTAL RETURN FLOWS ON
12 PAGE 212 INCLUDE RETURN FLOWS FROM IMPORTED WATER.

13 A THAT'S CORRECT. AND THOSE WERE INCLUDED IN
14 THE CALCULATION FOR NATIVE RECHARGE SHOWN ON 212. THAT
15 IS AN IMPORTANT ELEMENT.

16 Q I'M SORRY, SIR. I DON'T SEE A COLUMN
17 ENTITLED "NATIVE RECHARGE" ON THIS PAGE.

18 A I'M SORRY, "NATURAL RECHARGE." IT IS THE
19 COLUMN HIGHLIGHTED IN GREEN.

20 Q SO YOU ARE SAYING IMPORTED WATER CONTRIBUTES
21 TO NATURAL RECHARGE?

22 A IMPORTED WATER IS ONE OF THE INFLOW ITEMS
23 THAT IS USED IN THE SET OF DATA IN A PREVIOUS TABLE THAT
24 I SHOWED, FROM WHICH I WAS ABLE TO CALCULATE THE NATURAL
25 RECHARGE VALUE. AND I CAME UP WITH AN AVERAGE NATURAL
26 RECHARGE OVER THAT 27-YEAR PERIOD, AND I PLACED THAT
27 AVERAGE NATURAL RECHARGE INTO THIS TABLE.

28 NOW, IF YOU WOULD LIKE ME TO ASSUME THAT WE

1 DID NOT HAVE THE IMPORTED WATER, I WOULD NEED TO GO BACK
2 TO THE CALCULATION OF NATURAL RECHARGE, TAKE THE
3 IMPORTED WATER VALUES OUT OF THAT COLUMN, ESSENTIALLY,
4 AND REDUCE THE TOTAL INFLOW. THAT WOULD PRODUCE A
5 LARGER NATURAL RECHARGE THAT WOULD GO INTO THIS TABLE.
6 IT WOULD NOT BE THE SAME NATURAL RECHARGE.

7 AND I HAVEN'T DONE THAT, BUT I BELIEVE THAT
8 IF I HAD DONE THAT, I WOULD COME UP WITH EXACTLY THE
9 SAME DIFFERENCES IN THE COLUMN THAT IS HIGHLIGHTED IN
10 YELLOW.

11 BUT YOU CAN'T CORRECT ONE WITHOUT CORRECTING
12 THE OTHER, AND YOU ARE SUGGESTING THAT I LEAVE THE
13 NATURAL RECHARGE CALCULATION, WHICH INCLUDES THE
14 IMPORTED WATER IN THAT ANALYSIS, AND THEN TAKE IT OUT
15 FOR A SUBSEQUENT ANALYSIS. AND THAT IS JUST NOT AN
16 APPROPRIATE THING TO DO. IT IS MEANINGLESS.

17 IT IS ALMOST THE SAME AS SAYING, "LET'S JUST
18 DEDUCT 5 FROM ALL THOSE NUMBERS. AND WOULD THAT MAKE
19 THEM LOWER?"

20 "YES," THE ANSWER IS, "IT WOULD MAKE THEM
21 LOWER."

22 YOU CAN'T DO THAT.

23 Q SO IT'S YOUR TESTIMONY THAT IF YOU DIDN'T
24 INCLUDE IMPORTED WATER, THEN THE NATURAL RECHARGE WOULD
25 BE HIGHER?

26 A THE CALCULATED VALUE FOR NATURAL RECHARGE
27 WOULD BE HIGHER, YES.

28 Q HOW ABOUT THE VALUE THAT WOULD INCLUDE

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SUPERIOR COURT FOR THE STATE OF CALIFORNIA

COUNTY OF LOS ANGELES

DEPARTMENT NO. 316

HON. JACK KOMAR,

COORDINATION PROCEEDING
SPECIAL TITLE (RULE 1550B)

ANTELOPE VALLEY GROUNDWATER CASES)

JUDICIAL COUNCIL
COORDINATION
NO. JCCP4408

PALMDALE WATER DISTRICT AND
QUARTZ HILL WATER DISTRICT,

SANTA CLARA CASE NO.
1-05-CV-049053

CROSS-COMPLAINANTS,

VS.

LOS ANGELES COUNTY WATERWORKS,
DISTRICT NO. 40, ET AL,

CROSS-DEFENDANTS.

STATE OF CALIFORNIA)
) SS.
COUNTY OF LOS ANGELES)

I, GINGER WELKER, OFFICIAL REPORTER OF THE
SUPERIOR COURT OF THE STATE OF CALIFORNIA, FOR THE
COUNTY OF LOS ANGELES, DO HEREBY CERTIFY THAT THE
TRANSCRIPT DATED MARCH 23, 2011 COMPRISES A FULL, TRUE,
AND CORRECT TRANSCRIPT OF THE PROCEEDINGS HELD IN THE
ABOVE ENTITLED CAUSE.

DATED THIS 24TH DAY OF MARCH, 2011.

OFFICIAL REPORTER, CSR #5585