

STATE WATER RESOURCES CONTROL BOARD

PUBLIC HEARING

CONSIDERATION OF PETITION FILED BY SOUTHERN CALIFORNIA
WATER COMPANY TO REVISE DECLARATION OF FULLY APPROPRIATED
STREAM SYSTEMS REGARDING THE AMERICAN RIVER, CALIFORNIA.

FRIDAY, MAY 31, 2002

9:00 A.M.

CAL/EPA BUILDING

SIERRA HEARING ROOM

SACRAMENTO, CALIFORNIA

REPORTED BY:

ESTHER F. SCHWARTZ
CSR 1564

CAPITOL REPORTERS (916) 923-5447

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SACRAMENTO, CALIFORNIA

FRIDAY, MAY 31, 2002, 9:00 A.M.

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HEARING OFFICER SILVA: First of all, I apologize for what is going to be coughing and hacking. I've been trying to get rid of this cold. Bear with me.

This is the time and place for the hearing on the petition filed by the Southern California Water Company. The petitioner requests that the State Board revise the Declaration of Fully Appropriated Streams to allow for the processing of applications to appropriate from the American River treated groundwater discharged into the American River or its tributaries.

For the record, Southern California Water Company is operating as Arden-Cordova Water Service, and is a domestic water supplier for the Rancho Cordova area in Sacramento County. This hearing is being held in accordance of Notice of Hearing dated March 6, 2002.

I am Peter Silva, member of the State Water Resources Control Board. I will be assisted by staff counsel, Samantha Olson; staff geologist, Paul Murphey; and staff engineer, Jean McCue.

The purpose of this hearing is to afford the petitioner and interested parties an opportunity to present relevant, oral testimony and evidence which addresses the following

1 key issues:

2 Should the State Board revise the Declaration to allow
3 the Division of Water Rights to accept and process water
4 right applications to appropriate treated groundwater
5 discharged into the American River?

6 Point one: Has adequate information been provided to
7 demonstrate that there is a change in circumstances since
8 the American River system was first included in the FAS
9 declaration?

10 Second point: How much, if any, of the water
11 discharged by groundwater treatment operations is water that
12 was not considered at the time the American River system was
13 included in the FAS Declaration?

14 Point three: To what extent, if any, have flows in the
15 American River been affected by groundwater treatment
16 operations, including both pumping and discharging since the
17 American River system was included in the FAS declaration?

18 The last point: Has the petitioner provided sufficient
19 hydrologic data, water usage data or other relevant
20 information to support a determination that there is
21 unappropriated water in the American River system during the
22 season applied for to justify revising the Declaration for
23 the purpose of accepting and processing water right
24 applications related to the discharges of treated
25 groundwater into the American River?

1 At this time I would ask Samantha Olson to cover a few
2 procedural items and introduce staff exhibits.

3 MS. OLSON: Thank you, Board Member Silva.

4 The Division of Water Rights has a record with date of
5 proof of service signed on March 29, 2002, by Kay Robinson,
6 which certifies that notice of public hearing was published
7 in the Sacramento Bee for four consecutive weeks, beginning
8 March 8th, 2002, pursuant to Water Code Section 1207,
9 Subdivision A.

10 The Division of Water Rights has a record stating that
11 proof of service was signed March 6, 2002, by Linda Valin,
12 certifying that notice of this public hearing was sent to
13 the list of those requesting notice of FAS hearings, the
14 list of those requesting notice of hearings on the American
15 River and all those holding a permit or having a seat and
16 filed with the Board on the Lower American River. A total
17 of 91 people, in accordance with Water Code Section 1207,
18 Subdivision B.

19 At this time I would like to enter into the record the
20 State Water Resources Control Board Exhibits 1 through 6
21 listed on Page 13 of March 6, 2002 hearing notice.

22 H.O. SILVA: Thank you.

23 MS. OLSON: Are they accepted?

24 H.O. SILVA: They are accepted.

25 Thank you.

1 Now to explain the order of proceeding. Consistent
2 with a discussion of the prehearing conference of April 25,
3 2002, and my April 26, 2002 letter to the parties, our order
4 of proceeding in this hearing will be first to receive
5 nonevidentiary oral policy statements. Following the policy
6 statements we will receive testimony from the petitioner and
7 his witnesses, followed by cross-examination by the parties,
8 Board staff and myself.

9 We will adjourn today no later than 4:00 p.m.
10 Following the petitioner's testimony and related
11 cross-examination, and depending on the time remaining, the
12 parties who are prepared to present their testimony today,
13 may do so and may be cross-examined. Otherwise we will
14 receive testimony from the remaining parties on our new
15 hearing date, Monday, June 10th, 2002.

16 For the record, we will still hold the hearing on June
17 13th if a third day is required.

18 I am getting surprised looks.

19 Wasn't anybody contacted?

20 Why don't you think about it, and we will go through
21 the hearing and talk about it at lunch or something.

22 Can't do it? Okay.

23 MS. OLSON: We were trying to avoid having a third
24 hearing date at the end of July, and so June 10th was one of
25 the days we could come up with, a new hearing date.

1 H.O. SILVA: If we can't do it -- why don't you think
2 about it, just talk, mull it over. We don't have to decide
3 right now. I know it comes as a surprise to you. If it is
4 undoable for certain parties we can talk about other dates.
5 Maybe before the end of the day we can talk about the
6 dates.

7 Thank you.

8 At this time I would like to invite appearances by the
9 parties. Will those making appearances, please state your
10 name, address, and whom you represent so that the Court
11 Reporter can enter this information into the record. And a
12 business card would be helpful for her if you have one
13 today. Also, if any party other than Southern California
14 Water Company is prepared to present their case in chief
15 today, please state so when you are called.

16 First, who is representing Southern California Water
17 Company?

18 MR. SLATER: Good morning, Board Member Silva. Scott
19 Slater from the law firm of Hatch and Parent, from Santa
20 Barbara, California. With me today is Michael Fife, also
21 from Hatch and Parent, and Tam Hunt, also from Hatch and
22 Parent.

23 H.O. SILVA: Who is representing Aerojet-General
24 Corporation?

25 MS. GOLDSMITH: Good morning. Thank you for the

1 accordance to us Kings fans so we can get home and watch the
2 game. Appreciate it.

3 MR. SLATER: Home bias.

4 MS. GOLDSMITH: Janet Goldsmith and Eric Robinson of
5 the firm of Kronick Moskowitz Tiedemann & Girard -- we will
6 give you a card -- representing Aerojet General. And just
7 as an aside, Aerojet witness is out of state on the 10th. I
8 am out of town on the 10th, so that is probably a problem.

9 H.O. SILVA: Thank you.

10 Who is representing the Department of Fish and Game?

11 MS. DECKER: I am Jenny Decker, representing the
12 Department of Fish and Game.

13 H.O. SILVA: Who is representing the City of
14 Sacramento?

15 MS. LENNIHAN: Board Member Silva, my name is Martha
16 Lennihan, Lennihan Law, 2311 Capitol Avenue, Sacramento,
17 California 95816.

18 H.O. SILVA: Thank you.

19 Who is representing the Sacramento County Water Agency?

20 MR. SOMACH: Mr. Silva, Stuart Somach, law firm of
21 Somach, Simmons & Dunn, 400 Capitol Mall, Suite 1900,
22 95814. With me is Bill Vincent also from Somach, Simmons &
23 Dunn, and Dan Kelly.

24 We can't hear anything anybody is saying, other than
25 you all with the microphones. When these folks are saying

1 anything, I can't hear anything back there.

2 Might be that everybody has to come up here.

3 I know Janet said something very important about the
4 Kings.

5 MS. GOLDSMITH: Go, Kings.

6 H.O. SILVA: Who is representing the Bureau of
7 Reclamation?

8 MR. TURNER: James Turner, Assistant Regional
9 Solicitor, Office of the Regional Solicitor for the
10 Southwest Region, 2800 Cottage Way, Room E-1712, Sacramento,
11 95825.

12 H.O. SILVA: Who is representing California American
13 Water?

14 MS. DRISCOLL: Morning, Mr. Silva. Jan Driscoll of
15 Allen Matkins Leck Gamble & Mallory, 501 West Broadway, San
16 Diego, California 92101.

17 H.O. SILVA: Thank you.

18 MS. DRISCOLL: And I previously gave a card to the
19 reporter.

20 H.O. SILVA: Who is representing the Central Valley
21 Regional Water Quality Control Board?

22 MS. GEORGE: Morning. I am Catherine George with the
23 State Resources Control Board, Office of Chief Counsel,
24 representing the Central Valley Regional Water Quality
25 Control Board. My mailing address is P.O. Box 100,

1 Sacramento, California 95812.

2 H.O. SILVA: Thank you.

3 Who is representing the Department of Water Resources?

4 Anybody here for DWR?

5 Guess not.

6 Last, who is representing the Water Forum?

7 MR. WINTERNITZ: My name is Leo Winternitz, Sacramento

8 Water Forum successor, 660 J Street, Sacramento, 95814.

9 H.O. SILVA: Is anybody ready to go besides the main

10 party, to present their case in chief, just in case we have

11 extra time?

12 MR. TURNER: The Bureau of Reclamation can go if

13 sufficient time.

14 H.O. SILVA: Thank you. That is good to know.

15 Are there any other persons who we didn't name that

16 wish to present nonevidentiary policy statements?

17 MR. STORK: Ronald Stork, Friends of the River, 915

18 20th Street, Sacramento, California 95814.

19 THE COURT REPORTER: Your name, again, please.

20 H.O. SILVA: Your name again?

21 MR. STORK: Ronald Stork.

22 H.O. SILVA: Anybody else that wishes to participate?

23 Next is the oath. I will now administer the oath.

24 Will those of you wishing to testify in this proceeding,

25 please stand and raise your right hand.

1 (Oath administered by H.O. Silva.)

2 H.O. SILVA: The next item is we have a couple of
3 motions. The Board received two motions yesterday
4 afternoon. Aerojet filed a motion to exclude Southern
5 California Water Company's Exhibit 8 and Sacramento County's
6 Exhibit 1 as outside the scope of hearing. In addition,
7 Southern California Water Company filed a motion to exclude
8 the Department of Fish and Game's testimony based on well
9 data, well log data, not entered into the record.

10 I am prepared to rule on only one issue today and will
11 issue a written ruling on the other two at a later time.
12 The only issue to address today is Aerojet's objection to
13 Southern California Water Company's Exhibit 8 because
14 Southern California Water Company will be presenting its
15 testimony today. I have read Southern California Water
16 Company's response.

17 Exhibit 8 provides some useful background information
18 on Southern California Water Company's general operation.
19 At the same time the testimony does interject some equitable
20 issues that I specifically excluded from this hearing. I am
21 prepared to allow some of this testimony as to the number,
22 status of wells as general background information. But I
23 would ask that you not dwell on equitable issues that were
24 excluded from the scope of this hearing. Specifically
25 Subsection D of Exhibit 8 titled Arden-Cordova's Attempts to

1 Safeguard its Water supply.

2 I was very clear in the prehearing conference that
3 parties should not introduce testimony pertaining to issues
4 in the various outstanding lawsuits involving the Aerojet
5 operation that are not directly related to one of the
6 hearing issues. I expect that parties to adhere to this.
7 However, much of the underlying facts in Exhibit 8 speak to
8 the general physical location situation at the location and
9 will be allowed.

10 Next -- I'm sorry, Stu.

11 MR. SOMACH: Mr. Silva, one of the motions to strike
12 goes to Sacramento County, Sacramento County Water Agency
13 testimony. I just want to make certain I would like an
14 opportunity to provide a written response to what has been
15 provided. And since we have at least June 10th or June
16 13th, if I could file something next week, perhaps around
17 midweek, before you ruled on that motion.

18 H.O. SILVA: That would be fine. We'll give all the
19 parties time.

20 Is next Wednesday okay?

21 MR. SOMACH: It's okay for me.

22 MS. DECKER: Mr. Silva, is it possible for us to get a
23 copy of the objections that were filed with you?

24 H.O. SILVA: Should have been filed on the parties is
25 my understanding. We have copies here.

1 MS. DECKER: I will check in the office. I haven't
2 seen it, but I will assume it is there or it will be on its
3 way.

4 MS. OLSON: Also, let us know if Fish and Game can get
5 the response by Wednesday to that motion.

6 H.O. SILVA: Wednesday.

7 MS. DECKER: I will do it.

8 H.O. SILVA: Thank you.

9 MS. DECKER: One other question on procedure this
10 morning. Is it the case that we will have 20 minutes for
11 our opening or policy statements as well as the time
12 allocated to the witnesses or will that time be deducted?
13 In some of the hearings I understand that time has been
14 deducted from the testimony, substantive testimony, for
15 policy and opening statements. I just want to clarify which
16 you prefer for this hearing.

17 H.O. SILVA: That is fine. I will allow 20 minutes
18 separate from your testimony. I would ask you to keep it
19 brief. These are only policy statements.

20 MR. ROBINSON: Just to follow up on the written
21 objections --

22 H.O. SILVA: Come up and talk into the mike.

23 MR. ROBINSON: Aerojet General Corporation filed and
24 served written objections as you noted yesterday. All
25 parties on the service list were faxed a copy of that

1 objection, and one was also sent by mail. I have additional
2 copies here today on the front table if anybody needs one.

3 H.O. SILVA: Thank you.

4 You had a question?

5 MS. CROTHERS: I am from the Department of Water
6 Resources. I am here for a policy statement.

7 H.O. SILVA: Could you state your name, please?

8 MS. CROTHERS: My name is Cathy Crothers.

9 H.O. SILVA: Were you sworn in?

10 I'm sorry, you're not a witness.

11 MS. CROTHERS: I am not a witness. I am just here for
12 a policy statement on behalf of DWR.

13 H.O. SILVA: Thank you.

14 We are all here, then. Why don't I go down the list.
15 While we are looking for the names here:

16 A policy statement, just to go over it again here, is
17 a nonevidentiary statement. It may include the policy views
18 and position of the speaker and nonexpert analysis of
19 evidence that already has been presented. The Board will
20 accept written policy statements also. Persons who wish to
21 make only a policy statement may do so subject to the
22 following provisions:

23 Persons making such statements will not be sworn or
24 asked to affirm the truth of their statements. Such persons
25 must not attempt to use their statements to present evidence

1 of facts, either orally or by introduction of written
2 exhibits.

3 At the discretion of the Hearing Officer, questions
4 may be addressed to persons making only policy statements
5 for the purpose of clarifying their statements. However,
6 such persons shall not be subject to cross-examination.

7 I want to go down the list just to make sure we are all
8 set. I only show three, and I'm going to go through them,
9 and if I missed anybody, let me know.

10 Department of Water Resources. Only for policy
11 statements right now.

12 MS. CROTHERS: Good morning, Board Member. My name is
13 Cathy Crothers. I am a staff counsel at the Department of
14 Water Resources. The Board today has before it a petition
15 by the Southern California Water Company to revise the
16 declaration designating the American River as a fully
17 appropriated stream during the months of July through
18 October.

19 During this hearing DWR respectfully requests that the
20 Board keep in mind that the flows from the American River
21 during this period are specially important to the Department
22 of Water Resources as well as the U.S. Bureau of
23 Reclamation. Because this is a period when the Delta is
24 often in balance conditions, and during that time the
25 Department and the Bureau of Reclamation are often making

1 releases of their stored water to meet water quality needs
2 in the Delta.

3 As you will hear from the testimony from the Bureau of
4 Reclamation, that DWR and the Bureau, they are responsible
5 under D-1641 to meet these water quality needs of the Delta
6 and that the American River flows help to meet these needs.
7 In fact, in Decision 1594 by the Board, the Board imposes a
8 standard water right term permit, called Permit Term 91.
9 And in that term the Board applies the permit to use after
10 permits with a priority after 1965. The Board recognized
11 that during conditions where Term 91 is in effect if there
12 isn't enough water in the system to meet all the existing
13 beneficial uses, the water quality needs, and that diverters
14 cannot divert water during that period to help the projects
15 protect their stored water, which they are releasing at that
16 time.

17 So only if Aerojet discharges amount to sufficient
18 quantity to prevent the Term 91 conditions from being
19 imposed would there actually be additional flow available
20 to a new appropriator such as Southern California Water
21 Company.

22 DWR is also concerned that the extraction of
23 groundwater by Aerojet is reducing flow from the American
24 River in this area where we understand that is a losing
25 stream on the American River, and we are concerned about

1 whether this water is actually to be considered new water or
2 just recirculated water. And DWR hopes and believes that
3 before any determination is made to revise the declaration
4 of fully appropriate stream, that the petitioner provides
5 sufficient information about the influence of the pumping
6 and the flows from the American River.

7 We request that the Board carefully consider this
8 information in evaluating whether the discharge of the
9 extracted groundwater into the American River is actually
10 new and would be a basis for revising the declaration.

11 Even if there were new water added to the river by the
12 discharge, DWR believes there is sufficient documentation
13 already, such as the Board Decision 1400 and agreements such
14 as the Water Forums Agreement, that indicate there is not
15 sufficient flow in the American River in those summer months
16 at this time to justify revising the fully appropriated
17 streams declaration. This is not a transfer between Aerojet
18 and the Southern California Water Company. This is just a
19 discharge of treated groundwater, and there is no water
20 right being attached from Aerojet to a new water right
21 holder who is trying to claim that water. It's not
22 something that is really protected. It is more in a
23 neighborhood of abandoned water going into a system that
24 already appears to be deficient in this case.

25 In conclusion, DWR, although we are concerned with the

1 petitions before the Board, we also are sympathetic to the
2 needs of the Southern California Water Company and the
3 deficiencies in water in the Rancho Cordova area. DWR staff
4 recently participated in meetings with the parties, Southern
5 California Water Company and the Water Forum and others to
6 start identifying some methods to find solutions to
7 alleviate this water shortage. We hope that these efforts
8 will help find a reasonable solution to their needs.

9 Thank you. If you have any questions I would be happy
10 to answer them.

11 H.O. SILVA: Next, Water Forum.

12 MR. WINTERNITZ: I have left copies of my policy
13 statement at the table for parties. I am going to just
14 summarize excerpts of this policy statement in the interest
15 of time.

16 In 1993, the City and County of Sacramento created the
17 Water Forum in response to years of conflict in the
18 Sacramento region water planning arena. The Water Forum is
19 a diverse group of business and agricultural leaders and
20 environmentalists, citizen groups, water managers, local
21 government, and in April 2000 after seven years of
22 negotiations Water Forum participants signed a Water Forum
23 agreement. This signed to achieve two co-equal objectives.
24 And these two co-equal objectives are provide a safe and
25 reliable water supply for the region's economic health and

1 planned development through the year 2030 and preserve the
2 fishery, wildlife, recreational and aesthetic values of the
3 Lower American River.

4 The petition you have before you to revise the
5 Declaration of Fully Appropriated Streams systems applicable
6 to the American River is based in part on findings made in
7 Water Right Decision 893 adopted by the State Board in
8 1958. And this water right decision found that no
9 unappropriated water exists in the American River system
10 during August through October.

11 Subsequently, a State Board Order 89-25 expanded that
12 season to July 1st through October 31. Water Right Decision
13 893 also contains minimum instream flow provisions for
14 protection of beneficial uses in the American River.
15 However, both the State Board and state and federal resource
16 agencies recognize those instream flow provisions are
17 outdated and inadequate.

18 In an August 1990 State Board work plan that reviewed
19 water rights in the American River, the State Board
20 concluded that the flow requirements contained in Water
21 Right Decision 893, and I will quote here, do not provide an
22 adequate level of protection to the uses in the Lower
23 American River. This same work plan contained a schedule
24 for completing major activities that were to result in an
25 updated flow standard in the Lower American River, and the

1 schedule called for this work to be completed by November
2 1992. The work has not yet been completed.

3 In essence, therefore, the State Board is now
4 considering granting relief from the Declaration of Fully
5 Appropriated Stream status without the benefit of having in
6 place an instream flow release standard protective of
7 beneficial uses in the Lower American River.

8 One of the major elements -- I am going to skip that
9 part in the interest of time. State Board Resolution 99-112
10 supports efforts of the Water Forum to develop a master
11 water plan for the Sacramento area, and the State Board in
12 that resolution has also agreed that upon receipt the State
13 Board will initiate an expedited process to consider
14 adoption of a flow management plan for the Lower American
15 River. In essence one of the major elements in the Water
16 Forum agreement is an improved flow standard for the Lower
17 American River. And Water Forum staff and their
18 stakeholders have been diligently working on this element
19 for the last several years.

20 It is the Water Forum's intention, in partnership with
21 the United States Bureau of Reclamation and its
22 stakeholders, to bring to the Water Resources Control Board
23 for consideration an action, an improved flow management
24 plan, by this winter 2002 or early in 2003.

25 So based on the foregoing, the Water Forum successor

1 effort respectfully requests that the State Board consider
2 the following during deliberations on this petition:

3 Number one, do not take any actions or make any
4 decisions that may prejudice the State Board's consideration
5 of a flow management plan when it is brought to the State
6 Board this winter. For example, this determination should
7 not reduce water needed for instream beneficial uses.

8 And number two, ensure that there is sufficient
9 reliable information in the record to understand how flows
10 in the American River have been affected by groundwater
11 historically and how this has changed by Aerojet groundwater
12 treatment operations, both pumping and discharge, since the
13 State Board's 1958 decision finding that there is no water
14 available for appropriation from the river, the American
15 River, from July through October.

16 If there are any questions.

17 H.O. SILVA: Any questions?

18 Thank you.

19 MR. WINTERNITZ: Thank you.

20 H.O. SILVA: Friends of the River.

21 MR. STORK: Good morning. My name is Ronald Stork.
22 I'm a senior member of the conservation staff, Friends of
23 the River. Friends of the River is a member of the Water
24 Forum and is in support of Leo's statement to you as well.

25 We also have an additional statement. There are

1 copies, as some have already noted, for the parties at the
2 table there.

3 It's evident that this proceeding may have limited
4 utility in informing the petitioner about potential success
5 of its evident effort to seek appropriate abandoned
6 groundwater being discharged to the American River as a
7 result of groundwater cleanup actions by other parties. In
8 order to set the stage for such an appropriation action or
9 to develop clarity on the necessity to have alternative
10 groundwater replacement actions, it would seem necessary to
11 establish a set of additional findings beyond the announced
12 scope of this hearing. And I would think that is not a
13 surprise; staff has been very clear about that. Including
14 whether the original designation of full appropriation is
15 still an accurate assessment of the circumstance on the
16 American River, given the existing water demands, public
17 trust values, water rights on the American River and of the
18 Central Valley Project.

19 It also should be noted that the Water Forum agreement
20 itself calls for a renewed declaration of full appropriation
21 to be submitted with the revised Lower American River flow
22 standard that hopefully will be submitted to the Board next
23 year. In addition, Board action that provides the fully
24 appropriated stream petitioner with clarity on whether they
25 can achieve priority on such abandoned water over senior

1 water rights holders, public trust values or even adjacent
2 groundwater users who could make a case that their
3 groundwater as well is being discharged to the river, is
4 fundamental to the petitioner's understanding of the
5 prospect of success on the approach on which they appear to
6 be embarking.

7 Given the stated commitments by parties undertaking
8 groundwater clean up actions to petitioners and by extension
9 to other potentially affected groundwater users, to provide
10 alternative supply, it would seem important for the Board to
11 resolve key issues expeditiously so that necessary
12 arrangements between the parties with these groundwater
13 problems can be undertaken with confidence and in a timely
14 manner. If this proceeding does not open up the American
15 River fully appropriated stream status, many of these key
16 issues become moot, and parties are, therefore, free to
17 begin making alternative arrangements. Contrasting result
18 will not have that affect, because the narrow scope of this
19 proceeding will not clarify or resolve key issues important
20 to the petitioners and other parties, including Friends of
21 the River, concerned with matters in this watershed.

22 Thank you.

23 H.O. SILVA: Thank you.

24 Any questions?

25 I guess we are down to testimony for Southern

1 California Water Company.

2 MS. DECKER: For the rest of us, our opening
3 statements, we will do it just before our testimony is
4 presented?

5 H.O. SILVA: That's right.

6 MS. DECKER: Thank you.

7 H.O. SILVA: The other parties will give their opening
8 statements when they present their testimony.

9 There is a differentiation between a policy statement
10 and an opening statement. If you have a separate policy
11 statement, you need to let me know before we go on with the
12 testimony.

13 MS. DECKER: We can do it as an opening statement
14 before testimony.

15 H.O. SILVA: Thank you.

16 That would be better, make more sense if you wait until
17 your turn.

18 MR. SLATER: Good morning, Board Member Silva, members
19 of the Board Staff. My name is Scott Slater. I am here
20 today on behalf of our client, the Southern California Water
21 Company. We have prepared a written opening statement which
22 we are circulating now. I am going to take a couple of
23 minutes to briefly summarize the salient points and to
24 provide some context for our opening case in chief.

25 To begin with, the Southern California Water Company is

1 a statewide investor of utility. Its fares are regulated by
2 the California Public Utilities Commission, and it does
3 business in the Sacramento area and specifically Rancho
4 Cordova as the Arden-Cordova Water Services Company, and
5 provides water service to the community of Rancho Cordova
6 through its Rancho Cordova system. There are approximately
7 40,000 people that rely upon the Rancho Cordova system for
8 their daily water needs. Their customers are essentially a
9 mix of residential, commercial and industrial uses, and the
10 water supply that has been made available to these customers
11 through time has essentially predominantly been
12 groundwater.

13 The initial groundwater extractions began in this area
14 in the early 1950s and have continued through to the present
15 date. In the past as much as 14,000 acre-feet of
16 groundwater has been extracted from the South Sacramento
17 Groundwater Basin for use in distribution within the
18 franchised service territory. This historical reliance by
19 the Rancho Cordova system on groundwater is threatened.

20 It is threatened because of an existing contamination
21 problem and a threat that additional wells would be lost.
22 At the same time there is a contamination problem occurring,
23 there is also a vast cleanup effort. And this vast cleanup
24 effort involves the production or extraction of large
25 quantities of groundwater, treatment and then ultimately its

1 discharge. I say this again to provide some context and to
2 perhaps to address some of the initial policy comments.

3 There is no proposed point of diversion that is being
4 submitted with this petition. This petition goes to only
5 the question of whether new or additional water has been
6 made available. It may never be necessary. The evidence
7 will show that it may never be necessary to actually
8 physically divert water from the American River.

9 Why is that? Well, because Buffalo Creek is a point of
10 discharge which is tributary to the American River. It is
11 possible and indeed the environmental process, if an
12 application was forwarded, would include potential or
13 possible points of diversion. It may never be necessary to
14 physically divert water from the American River.

15 Secondly, Southern California Water Company doing
16 business in Rancho Cordova is not a new use of water. You
17 should remember that although this Board does not have
18 jurisdiction over regulating or affirming percolating
19 groundwater use, this is an instance in which there has been
20 decades of historical reliance on the continued use of
21 groundwater. It is only by virtue by a change in
22 circumstance that that groundwater is no longer physically
23 available through the wells that are owned and operated by
24 the Rancho Cordova system. And it is only by virtue of
25 their inability to pump that the water then is treated and

1 discharged and placed into Buffalo Creek and the American
2 River.

3 So the very act of prior historical use is what's part
4 of the baseline, that that groundwater use had predated and
5 continued on through all of the prior decisions regarding
6 the fully appropriated stream system that had been issued by
7 this Board. Again, for purposes of context and, as I know
8 Board Member Silva knows, the State Water Resources Control
9 Board has discretion in its lifting of a fully appropriated
10 stream system, and it may do so for the benefit of only a
11 limited number of parties. With regard -- and by example,
12 the Board's decision with regard to the Santa Ana petition,
13 the Board in that case made the decision that it would only
14 open the petition or revise the declaration for the benefit
15 of certain specific parties. And it did so in that case for
16 the Orange County Water District. Other parties asked to be
17 included. The Board said no, you needed to file your own
18 petition and demonstrate your own specific needs.

19 In this case and for the record we want to offer an
20 open stipulation now that we are not seeking a general
21 opening of the Lower American River system; we are seeking
22 it for the purpose of redressing the loss of supply due to
23 contamination. And we are open and invite any other party
24 who are similarly situated, and that would include
25 potentially the County of Sacramento and Cal-American Water

1 Company to come forward on a similar basis. But we are not
2 asking for a carte blanche reopening of the system. It is
3 linked to a specific purpose, one, and, secondly, to a
4 specific party for a list of candidates.

5 With regard to the four issues that this Board
6 identified as being the key issues, I have developed a
7 shorthand and I will refer to them in order and move through
8 what I think are some of the salient points.

9 First, with regard to change in circumstances. By
10 definition change assumes some relative baseline. And we
11 appreciate that there may be different points of view about
12 what the start point ought to be for purposes of change. We
13 think there are arguments that it could be a period of time
14 in the late 1950s, '58, '63, '65, perhaps in the '70s, and
15 perhaps even as late as 1989.

16 Irrespective of which baseline you choose, the fact is
17 that the activity that provides the new water to the system
18 began in 1998. So it is immaterial whether you select a
19 baseline of '58, in the mid '60s, the '70s or '89. The fact
20 is that the production and discharge of groundwater began in
21 1998. And indeed some of this continued use is planned for
22 and approved. So it is going to continue on. And it is not
23 yet occurring. So it is by definition a change against any
24 one of those baselines.

25 Second issue was, well, how much of the groundwater was

1 considered? And two points. One is Southern California
2 Water Company operating as Rancho Cordova has always been
3 producing groundwater. We think that the great weight of
4 evidence and all the testimony we are going to provide today
5 suggests that it is not tributary groundwater, and there are
6 good reasons to conclude that is not tributary. And so to
7 the extent that Aerojet is producing, treating, discharging
8 nontributary groundwater, meaning, shorthand, water that
9 wasn't part of the base flow of the American River and
10 wouldn't have reached it as percolating groundwater, it
11 constitutes new water, and by definition could not have been
12 considered as a part of the prior declarations.

13 With regard to the issue of affect on flows, our point
14 is, again, nontributary. The groundwater is nontributary.
15 And as some of the earlier comments, and again I believe the
16 weight of the evidence will show, there is very minimal
17 hydrologic connection. The stream is a losing stream. It
18 loses water to the groundwater basin. There is very little
19 affect or connection of groundwater pumping on this stream
20 system. And this condition has been relatively constant for
21 about 50 years.

22 As to the issue of whether there is adequate
23 information, Southern California Water Company has retained
24 the services of Komex, H2O and more specifically Mr. Brown
25 and Mr. Ross who performed a comprehensive investigation

1 designed to address the question of whether this groundwater
2 was tributary. And they engaged in a six-part methodology.

3 Their six-part methodology took a look at historical
4 data and reports. So they reviewed and studied all the
5 available professional literature. Then they took a look at
6 groundwater elevations and studied those elevations in the
7 context of surface water flows. They evaluated flow
8 directions. They performed aquifer tests. They studied
9 the distribution of contaminants, and they also took a look
10 at the chemical composition of water in the surrounding
11 areas.

12 After performing this analysis, they have developed an
13 opinion, and their opinion is that substantially all,
14 substantially all, of the groundwater produced, in other
15 words, extracted, treated and discharged by Aerojet is
16 nontributary. Therefore, in summary, given that this is a
17 relatively new occurrence, 1998 and going forward, the
18 source is nontributary and that there are physical
19 observations and easily metered or measured discharges into
20 Buffalo Creek. It is clear, and we are confident that the
21 evidence will show, that there is augmented, material
22 quantities of new water available for appropriation on
23 Buffalo Creek and ultimately the American River.

24 And with that I would like to bring forward our first
25 witness and begin our case in chief.

1 H.O. SILVA: Thank you.

2 ---oOo---

3 DIRECT EXAMINATION OF SOUTHERN CALIFORNIA WATER COMPANY

4 BY MR. SLATER

5 MR. SLATER: Morning, sir. Could you please state and
6 spell your name for the record?

7 MR. HANFORD: My name is Robert Hanford, H-a-n-f-o-r-d.

8 MR. SLATER: Mr. Hanford, I believe just before you is
9 a document marked or labeled as Exhibit 8, Southern
10 California Water Company Exhibit 8?

11 MR. HANFORD: Yes.

12 MR. SLATER: Mr. Hanford, you have to make sure your
13 mike is on in front of you.

14 Do you recognize what that exhibit is?

15 MR. HANFORD: Yes, I do.

16 MR. SLATER: Can you tell us what it is?

17 MR. HANFORD: Testimony I prepared for this hearing.

18 MR. SLATER: Have you reviewed it recently?

19 MR. HANFORD: Yes.

20 MR. SLATER: Is it true and accurate?

21 MR. HANFORD: Yes.

22 MR. SLATER: Do you wish to make any changes?

23 MR. HANFORD: No.

24 MR. SLATER: What is your current title, position?

25 MR. HANFORD: My title is engineering and planning for

1 region one of Southern California Water Company.

2 MR. SLATER: How long have you held this position?

3 MR. HANFORD: Approximately three years.

4 MR. SLATER: What are your professional and educational
5 qualifications?

6 MR. HANFORD: I have a Bachelor's of civil engineering
7 from the University of Nevada. I received my Master's in
8 business administration from the University of Santa
9 Clara. I am a registered and professional civil engineer in
10 California since 1981 and also certified by the California
11 Department of Health Services as a D-1 operator.

12 MR. SLATER: For us in the crowd who don't know what a
13 D-1 is, please tell us what a D-1 operator is.

14 MR. HANFORD: The California Department of Health
15 Services certifies and evaluates operators of water systems,
16 ranging from D-1 to D-5 classifications.

17 MR. SLATER: Quickly, who is Southern California Water
18 Company?

19 MR. HANFORD: Southern California Water Company is a
20 California Public Utility Commission regulated water utility
21 in California serving approximately a million customers.

22 MR. SLATER: They do business in Sacramento County in
23 what format?

24 MR. HANFORD: We do business in Sacramento County as
25 Arden-Cordova Water Services. We also have Arden System in

1 central Sacramento County.

2 MR. SLATER: Speak up.

3 MR. HANFORD: And the Rancho Cordova system is in
4 eastern Sacramento County.

5 MR. SLATER: For the record, what color were you
6 pointing to? I believe that is Exhibit 1.

7 MR. HANFORD: Correct. The Rancho Cordova is azure
8 blue color.

9 MR. SLATER: Thank you.

10 Just so we avoid any hometown bias, are you a Kings fan?

11 MR. HANFORD: I am ambivalent.

12 MR. SLATER: Wrong answer.

13 Do you have any -- do you have specific knowledge of
14 the Rancho Cordova system?

15 MR. HANFORD: Yes, I do.

16 MR. SLATER: How many people are served by the Rancho
17 Cordova system?

18 MR. HANFORD: We have approximately 40,000 customers.

19 MR. SLATER: What type of end use do your customers --
20 what ultimate end use do your customers enjoy?

21 MR. HANFORD: We have primarily commercial and
22 residential customers. We have some, a few, industrial
23 customers. Most of the water is consumptively used.

24 MR. SLATER: Does the Rancho Cordova system rely upon
25 groundwater to meet its needs?

1 MR. HANFORD: Yes, we do.

2 MR. SLATER: When did the Rancho Cordova system begin
3 producing groundwater?

4 MR. HANFORD: I would like to refer to another exhibit.

5 MR. SLATER: Sure. Tell us what exhibit it is.

6 MR. HANFORD: It is Exhibit No. 7.

7 MR. SLATER: Southern California Water Company Exhibit
8 7. Can you describe it very quickly for the record?

9 MR. HANFORD: Yes. It shows some of the existing wells
10 that were acquired when the system was initially purchased.

11 MR. SLATER: Again, does the Rancho Cordova system rely
12 upon wells and, if so, which wells to meet its needs?

13 MR. HANFORD: Currently I have 21 wells in operation,
14 nine of which are currently providing water to the system,
15 approximately 14,000 acre-feet.

16 MR. SLATER: Again, this production of groundwater use
17 began when?

18 MR. HANFORD: It began in 1951.

19 MR. SLATER: Was the Rancho Cordova system the
20 owner-operator in 1951?

21 MR. HANFORD: No, we were not.

22 MR. SLATER: Who was?

23 MR. HANFORD: The Natomas Water Company.

24 MR. SLATER: Did the Rancho Cordova system acquire
25 those assets previously held by the Natomas Water System?

1 MR. HANFORD: Yes.

2 MR. SLATER: Presently how many of the wells that are
3 operated by the Rancho Cordova system are in operation?

4 MR. HANFORD: Nine currently.

5 MR. SLATER: Where are these wells located?

6 MR. HANFORD: I would like to refer to Exhibit No. 2.

7 MR. SLATER: Would you please do that.

8 MR. HANFORD: This map shows the boundary of our
9 service area for the Rancho Cordova system, the surrounding
10 portions of Sacramento County and the location of our
11 existing wells denoted in the legend by circular symbols.

12 MR. SLATER: How much groundwater does or how much
13 groundwater has the Rancho Cordova system produced in the
14 past to meet its needs?

15 MR. HANFORD: We produce up to 14,000 acre-feet.

16 MR. SLATER: Again, how many wells are presently in
17 operation?

18 MR. HANFORD: Nine of the 21.

19 MR. SLATER: I call your attention to Exhibit 6.

20 MR. HANFORD: Yes.

21 MR. SLATER: Describe that exhibit, please.

22 MR. HANFORD: Exhibit 6 lists all the wells owned and
23 operated by Southern California Water Company in the Rancho
24 Cordova system, and lists their current status as operating
25 or nonoperating.

1 MR. SLATER: Why have those wells been shut down?

2 MR. HANFORD: They are shut down due to groundwater
3 contamination.

4 MR. SLATER: What form of contamination? Do you know?

5 MR. HANFORD: Either contamination by perchlorate or
6 NDMA.

7 MR. SLATER: How is the Rancho Cordova system
8 maintaining to meet its needs today?

9 MR. HANFORD: As you can see, our more recent wells
10 that we have constructed are much larger in capacity than
11 our older wells, and we have constructed these larger wells
12 to meet our needs.

13 MR. SLATER: I am not sure that everybody can see or
14 read what is on the exhibit. Can you describe what led you
15 to that conclusion?

16 MR. HANFORD: Well 2 has the capacity of 3,000 gallons
17 per minute. Well 23 has a capacity of 1,000 gallons per
18 minute.

19 MR. SLATER: Do you expect to continue to lose wells
20 into the future?

21 MR. HANFORD: Yes, we do.

22 MR. SLATER: Are you sure of the location, the physical
23 location, of where the Aerojet wells are in relationship to
24 your own wells?

25 MR. HANFORD: Yes. I would like to refer to another

1 exhibit.

2 MR. SLATER: Sure. Which one?

3 MR. HANFORD: I think 4.

4 MR. SLATER: This would be Exhibit 4?

5 MR. HANFORD: Yes. Thank you.

6 MR. SLATER: Can you please describe that exhibit?

7 MR. HANFORD: Exhibit 4 shows our existing service area
8 in a shaded gray area and the location of the Aerojet GET on
9 Aerojet's facility.

10 MR. SLATER: How are they depicted on the exhibits?

11 MR. HANFORD: Immediately adjacent to and contiguous to
12 our service area.

13 MR. SLATER: If you were to express a physical distance
14 in relationship between the Aerojet wells and your
15 production wells, do you have a general observation?

16 MR. HANFORD: Yes. Generally within a couple thousand
17 feet.

18 MR. SLATER: Do they generally extract water from the
19 same source groundwater supply that the Rancho Cordova
20 system uses?

21 MR. HANFORD: Yes.

22 MR. SLATER: With that I have no further questions for
23 this witness.

24 Would you like us to offer him for questions?

25 H.O. SILVA: I have one question. I was curious, you

1 said your treatment plants do have a certain percentage of
2 water that comes from surface flow?

3 MR. HANFORD: We have a surface treatment plant that
4 provides 4,000 acre-feet, yes.

5 MR. SLATER: Would you like us to offer all the
6 witnesses at once for cross?

7 H.O. SILVA: I think it is better to go through the
8 witnesses, and we can do, like, a panel.

9 MR. SLATER: We are ready to take our next panel.

10 Morning, gentlemen. Can you each please state and
11 spell your last names for the record?

12 MR. BROWN: My name is Anthony Brown, surname,
13 B-r-o-w-n.

14 MR. ROSS: Steve Ross, R-o-s-s.

15 MR. SLATER: Gentlemen, perhaps you can move the mikes,
16 make it easier.

17 Let's start with you, Mr. Brown.

18 Can you tell us your present title and position?

19 MR. BROWN: I am the principal hydrologist and chief
20 operating officer and director of all U.S. and Latin America
21 for Komex, a global resources consulting company.

22 MR. SLATER: What is your educational background?

23 MR. BROWN: I have a degree in physical geology from
24 King's College, University of London. Have a post graduate
25 in civil engineering from the Imperial College of Science,

1 Technology and Medicine, University of London. I have a
2 Master of Science degree in engineering and hydrology from
3 Imperial College, London.

4 MR. SLATER: Can you briefly describe your background
5 and experience as it relates to your testimony in this
6 case?

7 MR. BROWN: Yes. I have 15 years of consulting
8 experience in the field of hydrology and working both in
9 surface water hydrology, all issues of surface water
10 quality, in addition to groundwater hydrology where you have
11 looked not only at groundwater resource development
12 production for water supply, but also water quality issues
13 particularly related to contamination of groundwater by
14 industrial pollutants. I have also extensively worked in
15 groundwater surface interaction, and actually that was the
16 subject of my Master's thesis.

17 MR. SLATER: Mr. Ross, can you please take a look at
18 the document which is marked as Southern California Water
19 Company Exhibit No. 9?

20 MR. ROSS: Yes.

21 MR. SLATER: Do you recognize that?

22 MR. ROSS: Yes, I do.

23 MR. SLATER: Can you tell us what this is?

24 MR. ROSS: This is my testimony for the opinions from
25 our report.

1 MR. SLATER: And do you wish to make any changes to
2 your testimony?

3 MR. ROSS: No, I do not.

4 MR. SLATER: Is it true and correct?

5 MR. ROSS: Yes.

6 MR. SLATER: Mr. Brown, can you take a look at
7 Southern California Exhibit 9A?

8 MR. BROWN: Yes.

9 MR. SLATER: Did you sign this report?

10 MR. BROWN: Yes, I did.

11 MR. SLATER: Do you wish to offer any changes to the
12 report?

13 MR. BROWN: No, I do not.

14 MR. SLATER: Mr. Ross, can we take a moment to go
15 through your professional qualifications, as well? Can you
16 briefly describe your present title and position?

17 MR. ROSS: I am a senior hydrogeologist with Komex
18 International, and I have been working for Komex for over
19 ten years.

20 MR. SLATER: What is your educational background?

21 MR. ROSS: I have a Bachelor's of Science from the
22 University of Waterloo in Ontario, Canada, and a Master's of
23 Science in earth science from the University of Waterloo in
24 Canada.

25 MR. SLATER: Would you describe your background and

1 professional experience as it relates to the testimony that
2 you are going to provide in this case?

3 MR. ROSS: I evaluate groundwater as far as water
4 resources for production issues, as well as evaluating site
5 conditions for soil and groundwater contamination from the
6 industrial facilities. My Master's, as Mr. Brown's, was in
7 surface groundwater interactions in Sao Paulo, Brazil.

8 MR. SLATER: Mr. Brown, can you tell us or lay a
9 foundation for the purpose of creating this report?

10 MR. BROWN: Yes. The purpose of the report would be
11 the exchange and hydrologic interaction between the
12 groundwater extracted by Aerojet as part of its remediation
13 activity in the Lower American River.

14 MR. SLATER: What groundwater treatment operation did
15 you examine?

16 MR. BROWN: Can I stand up and refer to the exhibits?

17 MR. SLATER: Please do.

18 MR. BROWN: I will speak up so everyone can hear me.
19 We looked at the three groundwater extraction treatment
20 systems, either that had been established or proposed for
21 Aerojet. The first system is referred to as ARGET, American
22 River Groundwater Extraction and Treatment system. This
23 facility is located immediately adjacent to the central
24 portion of the Aerojet facility. That is immediately
25 downstream of Lake Natomas. The system comprises 15

1 extraction wells installed to control, remediate, a plume of
2 TCE, trichloroethylene, migrating from the Aerojet facility
3 in a general northwesterly direction beneath and to the
4 north of the American River.

5 There are, as I mentioned, about 15 extraction wells
6 that pump water from what are referred to as Aquifers A, B
7 and C. Perhaps I can take a little time here to describe
8 the hydrogeology just above, in terms of this area.

9 MR. SLATER: Please do.

10 MR. BROWN: The area immediately east of the Aerojet
11 facility is moving into the Sierra Foothills. As we move
12 further west we move to the Sacramento Valley. Sediments
13 are deposited by the American River as it drains the Sierra
14 Mountains and Sierra Foothills. The sediments are coarse
15 grains, clays, sands, gravels and cobbles, some finer grains
16 and silty sands. This silty materials then form essentially
17 a ledge of alluvial sediments which deepens as it extends to
18 the west and alternates across the grains which make up the
19 main aquifer units in the area. Finer grain materials that
20 separate those units -- finer materials have been removed by
21 erosion of the American River as it moved across the
22 Sacramento Valley.

23 MR. SLATER: Thank you.

24 MR. BROWN: As I indicated, ARGET pumps 15 extraction
25 wells, approximately 2,100 gallons per minute which is about

1 3,300 acre-feet per year. There are plans to expand that
2 production up to 2,500 gallons per minute, about 4,000
3 acre-feet per year. Aerojet does have a permit that would
4 allow it to pump up to 3,450 gallons per minute, which is a
5 little over 5,500 acre-feet per year. The water is treated
6 using ultraviolet light and air-stripping, and then the
7 water is discharged to Buffalo Creek after it is treated at
8 this local ARGET treatment facility and discharged here to
9 Buffalo Creek. Then it flows along Buffalo Creek towards
10 the American River. That discharge began in August of
11 1998.

12 MR. SLATER: Mr. Brown, what is the distance from the
13 location of discharge that you just stated to the American
14 River?

15 MR. BROWN: I believe it is approximately, about two
16 miles, about 9,000 feet.

17 H.O. SILVA: Where is Buffalo Creek?

18 MR. BROWN: The black line written here, illustrating
19 it with my finger, as it flows to the west and exits
20 Aerojet's facility, crosses the Folsom Canal and flows down
21 in a northwesterly direction where it discharges into the
22 American River at this location.

23 H.O. SILVA: Is that a main channel right now?

24 MR. BROWN: No, just an unlined channel.

25 MR. SLATER: For the record, Mr. Brown, what exhibit

1 are you referring to?

2 MR. BROWN: To Exhibit 4 here.

3 MR. SLATER: Please go ahead.

4 MR. BROWN: The second system referred to as the GET
5 E/F system, groundwater extraction treatment system, which
6 is located here, on the westerly portion of the Aerojet
7 facility. Groundwater Extraction Treatment System F is
8 located here in the southwestern portion of the Aerojet
9 facility. There are extraction wells in these locations
10 which pump to a common treatment system. All the flow is
11 treated in one area. There are -- these wells were
12 installed to control the off-site migration of TCE
13 contaminants in that groundwater from the Aerojet facility
14 which was migrating to the west.

15 Originally, the water was extracted from these wells
16 and then discharged to injection wells located on the
17 westerly portion of the Aerojet facility for a short time.
18 That water is sprayed in the spray field on the IRCT land
19 south. That water is currently extracted and treated and
20 discharged to the ground to an area immediately east of GET
21 E and F area. There are 11 extraction wells, I believe, in
22 operation in the GET E/F system. They pump from zones A, B,
23 C, D which are somewhat consistent with Aquifers A, B, C.
24 We are talking ARGET, but slightly deeper C and D are units
25 from which Southern California Water Company draws its

1 production water.

2 H.O. SILVA: Could you -- did you say that part does
3 not go into the creek right now?

4 MR. BROWN: Right now it does not. Water extracted
5 from GET E/F is treated and is discharged to ground ponds, a
6 series of ponds to the east of the GET E/F system.

7 H.O. SILVA: Can everybody hear okay?

8 I am hearing. I am seeing nods.

9 It would be helpful if you could talk a little louder.

10 MR. BROWN: I'm actually talking my normal tone.
11 Hopefully you will be able to hear me.

12 As I mentioned, the GET E/F system, 11 extraction
13 wells. They pump 3,300 gallons per minute, which is 5,400
14 acre-feet. There are plans to increase that pumping
15 capacity to about 6,000 gallons per minute, which is about
16 9,600 acre-feet.

17 The water was originally treated with just
18 air-stripping to remove volatile organic compounds. That
19 treatment was updated to add UV light and biological
20 processes to treat NDMA and perchlorate.

21 The third system that I am going to discuss is a system
22 process proposed. I refer to Exhibit 17. Recently Aerojet
23 completed a remedial investigation feasibility study under
24 the direction of state and federal governments and developed
25 as part of the RAF, developed a series of remedial

1 alternatives. The ROD was issued by the EPA indicating what
2 is referred to as remedy 4C, the preferred remedy to treat
3 the contamination which is migrating off the Aerojet
4 facility in a westerly direction.

5 4C is -- this figure is taken from Exhibit 15, refers
6 to Figure 4-6. The proposed remedy has approximately 18
7 extraction wells located at the site. The exact number has
8 not been determined for future work. Five on-site
9 extraction wells. The wells will pump approximately 8,000
10 gallons per minute, which is 13,000 acre-feet per year. The
11 water will then be treated using UV and biological processes
12 and discharged either directly or indirectly to the American
13 River.

14 MR. SLATER: With regard to -- Mr. Brown, with regard
15 to the GET E/F facility, the present method of disposal,
16 again, is what?

17 MR. BROWN: The current method -- I refer back again to
18 Exhibit 4. Water is extracted at the wells, field treated
19 at that time, common treatment system, and discharged to
20 ground.

21 MR. SLATER: Is there a proposal to modify that to
22 discharge that into Buffalo Creek?

23 MR. BROWN: Yes, there is.

24 MR. SLATER: Can you describe that proposal?

25 MR. BROWN: Yes. At some point the extraction and

1 treatment systems are connected to a discharge system at
2 Buffalo Creek.

3 MR. SLATER: What about Alternative 4C?

4 MR. BROWN: The intent there is to either discharge
5 that water directly or indirectly to the American River with
6 the likely connection, again, to Buffalo Creek.

7 MR. SLATER: Mr. Brown, do you know why the groundwater
8 treatment facilities have been cited at the present
9 locations?

10 MR. BROWN: Yes, I do. They have been cited to control
11 and remediate the groundwater contaminants they are flowing
12 in the Aerojet facility.

13 MR. SLATER: Do you need to refer to Figure 3? Would
14 that be helpful?

15 MR. BROWN: Yes, it would. Displayed on the computer
16 screen. This one in particular shows the groundwater
17 contaminant plume that's emanating to the northwest from the
18 Aerojet facility, which is proposed to be remediated using
19 the ARGET system that is currently being remediated. The
20 plume is the black line that is now being highlighted.

21 MR. SLATER: This figure references or refers to 3-29.
22 It is from Exhibit 15.

23 MR. BROWN: The other figure it referenced is
24 previously referenced Exhibit 17, Figure 4-6. Where the
25 black line I am pointing out -- again, I am referencing

1 Exhibit 19, Figure 4-6 -- shows extensive groundwater
2 contamination. This black line is to the west of the
3 Aerojet facility.

4 MR. SLATER: Thank you.

5 When did these groundwater treatment operations begin
6 discharging water, either directly or indirectly, to Buffalo
7 Creek and the American River?

8 MR. BROWN: They began discharging into Buffalo Creek
9 in August of 1998 with the ARGET system.

10 MR. SLATER: And do the groundwater treatment
11 operations that discharge the water actually contribute flow
12 to Buffalo Creek?

13 MR. BROWN: Yes, it does.

14 MR. SLATER: How did you observe that?

15 MR. BROWN: With flow measurement along the creek?

16 MR. SLATER: What did you find?

17 MR. BROWN: We found that -- I will stand up again.

18 We took flow measurements at three locations along
19 Buffalo Creek. One location immediately off-site from the
20 Aerojet facility, one location approximately half-way
21 between the Aerojet facility and the American River and one
22 location immediately prior to the discharge to the American
23 River. We found that immediately off-site from Aerojet, and
24 the flow measurement indicated a little over 2,000 gallons
25 per minute, that flow was present within Buffalo Creek.

1 Whereas at the discharge to the American River, we measured
2 1,500 gallons of flow in Buffalo Creek.

3 MR. SLATER: What was the purpose of making these
4 measurements?

5 MR. BROWN: Just to indicate flow present in Buffalo
6 Creek discharging from Aerojet facility to the American
7 River. And, in fact, one point I should make, I was at the
8 Aerojet facility yesterday and the day before and Buffalo
9 Creek immediately upstream of the ARGET facility is, in
10 fact, dry.

11 H.O. SILVA: How far is it from when it goes off
12 Aerojet and gets to the American River from your first and
13 second measuring points?

14 MR. BROWN: From the first measuring to the second
15 measuring point is approximately 3,500 feet. And from the
16 second to the final measuring point is about 4,000 feet.

17 H.O. SILVA: Thank you.

18 MR. SLATER: Do you have an opinion as to source of the
19 inflow?

20 MR. BROWN: Yes. The source of inflow into Buffalo
21 Creek is the discharge from the ARGET system.

22 MR. SLATER: For clarification, the quantity that you
23 measured was?

24 MR. BROWN: A little over 2,000 gallons per minute or
25 3,200 acre-feet.

1 MR. SLATER: Did you find there is a discharge from
2 Buffalo Creek into the American River?

3 MR. BROWN: Yes. As I indicated, discharge of 1,500
4 gallons per minute or 2,300 acre-feet per year.

5 MR. SLATER: Did you observe any intervening
6 contribution to Buffalo Creek from another source?

7 MR. BROWN: Yes. There are several storm drains to
8 Buffalo Creek between the Aerojet property and the American
9 River. However, the flow in the storm drains is
10 insignificant at the time of monitoring.

11 MR. SLATER: Do you have an opinion as to the quantity
12 or carriage losses that might exist from the initial point
13 of discharge to the American River?

14 MR. BROWN: Based on the flow measurements, 500 gallons
15 per minute or 760 acre-feet per year of loss between the
16 Aerojet properties and the American River.

17 MR. SLATER: Mr. Brown, I would like to take you to the
18 report now in terms of methodology.

19 Can you please describe the general methodology that
20 you employed in preparing your study?

21 MR. BROWN: Certainly, yes. We examined information
22 and data available from the area of interest, that area
23 immediately downstream from Lake Natomas, which includes the
24 ARGET system at the reach of the American River and the GET
25 E/F treatment area, extraction area, the proposed remedy 4C

1 extraction area, and well source areas for Southern
2 California Water Company. We have a substantial amount of
3 data, historical data, for this area, both historical
4 reports and documentation as well as data collected by
5 Southern California Water Company in particular as part of
6 the investigation of remediation programs.

7 We looked at data that we felt was relevant and
8 pertinent to the situation of surface groundwater
9 interaction for the American River. We took six individual
10 task elements of work scope: First review of existing
11 documentation that was available from particular state
12 records, DWR bulletins. The second element we looked at,
13 elevations both of groundwater surface and of the American
14 River itself. The third element, looking at groundwater
15 flow direction in the study area. The fourth element was
16 evaluating aquifer test hydraulic connection, for the
17 aquifer unit to evaluate whether the American represented a
18 recharge harder boundary. Fifth, contamination distribution
19 within the aquifer unit, particularly the contamination in
20 the ARGET system. The last item we looked at was the
21 geochemical composition above the surface water and
22 groundwater to evaluate the difference of any degree of
23 mixing due to recharge.

24 MR. SLATER: Thank you.

25 I would like to, with that background, turn to

1 Mr. Ross. Can you tell us what you did with that
2 methodology and what you found?

3 First, Mr. Ross, what did you do with regard to your
4 review of historical literature?

5 MR. ROSS: What we did, we reviewed historic
6 literature, and that was the Department of Water Resources
7 reports, specifically Bulletin 133 and 118-3.

8 MR. SLATER: For the record, again those dates were
9 1955, '64 and '74 respectively?

10 MR. ROSS: Correct.

11 MR. SLATER: What did your research and review of these
12 professional reports and historical literature lead you to
13 conclude?

14 MR. ROSS: Based on the review of this literature, it
15 indicated that the American River was a losing river between
16 Folsom bridge and the confluence of the Sacramento River
17 from those time periods, from 1955.

18 MR. SLATER: That has remained a relatively constant
19 condition from when to now?

20 MR. ROSS: From 1955 to present.

21 MR. SLATER: According to the historical literature,
22 what is the likelihood there is a relationship that exists
23 between the Lower American River and the groundwater basin?

24 MR. ROSS: The likelihood is very high that the
25 conditions that were present in 1955 and present now are the

1 same.

2 MR. SLATER: And is there a point of view or prevailing
3 point of view of this relationship between groundwater
4 production and flow in the river?

5 MR. ROSS: Yes. Production in the Sacramento Basin is
6 mostly from groundwater. Additional groundwater extraction
7 within the basin will not influence or extract more water
8 from the river because the river is not directly
9 hydraulically connected to the uppermost ground bearing
10 unit.

11 MR. SLATER: That is a prevailing point of view in
12 these historical professional reports?

13 MR. ROSS: And from our evaluation as well.

14 MR. SLATER: We will get there in a second. With
15 regard to the next step in your methodology, which was
16 groundwater elevations, what did you do in regard to that?

17 MR. ROSS: We looked at groundwater elevations as they
18 relate to the American River. And we found that generally
19 in most of the entire area groundwater levels were much
20 lower than that of the American River, indicating that water
21 would be losing from the American River.

22 MR. SLATER: Generally what is much lower?

23 MR. ROSS: In some cases up to 30 feet below the
24 American River elevation.

25 MR. SLATER: And were there exceptions to that?

1 MR. ROSS: Yes. There were exceptions near Nimbus Dam
2 where the groundwater levels were slightly above the river
3 level and to the river level, which would indicate that
4 groundwater could be discharging to the American River at
5 that specific location.

6 MR. SLATER: Is that a frequent occurrence? Rare
7 occurrence?

8 MR. ROSS: That occurrence would be frequent, and in
9 that extreme eastern portion of the ARGET area.

10 MR. SLATER: Approximately how many wells of the total
11 are included within that area?

12 MR. ROSS: Three of the 15 extraction wells are located
13 within that area where the groundwater surface would be at a
14 similar elevation to the American River.

15 MR. SLATER: What did you learn with regard to flow
16 elevations?

17 MR. ROSS: The distribution of the groundwater surface
18 gives us the groundwater flow direction. What we found was
19 that the groundwater flow direction in the ARGET area is
20 underneath or going towards the northwest, so now directly
21 into the river, and in the area to the southwest in the 4C
22 the groundwater is sort of southwest or parallel to the
23 river. Therefore, it would not be discharging into the
24 river.

25 MR. SLATER: What did you learn with regard to the

1 performance of the aquifer tests?

2 MR. ROSS: Aquifer tests were conducted that showed
3 there was not a direct hydraulic connection between the
4 uppermost water bearing unit and the river, and this was
5 shown by drawdown from the extraction well at the south side
6 of the river causing drawdown on the north side of the river
7 indicating that the river was in the recharge boundary.

8 MR. SLATER: What did you learn with regard to the
9 distribution of contaminants?

10 MR. ROSS: As Mr. Brown indicated, there is a plume of
11 TCE which is located on the south side of the plume and has
12 migrated to the north side of the river, underneath the
13 river, indicating that the river is not a hydraulic barrier
14 to groundwater flow.

15 MR. SLATER: You better emphasize -- can you go over
16 that one more time?

17 MR. ROSS: There is a plume of dissolved phase TCE in
18 the groundwater. The highest concentrations of this plume
19 are in the area of Aerojet, and that plume is migrating in
20 the direction of groundwater flow which is towards the
21 northwest. That plume has migrated under the river, the
22 north side of the river, indicating that the river is not a
23 barrier to groundwater flow.

24 MR. SLATER: And what did you learn with regard to your
25 study of comparison chemical composition?

1 MR. ROSS: We have -- mainly the chemicals in this area
2 that we saw, there is somewhat limited mixing of the
3 American River water and groundwater, indicating that the
4 American River is losing water in this area.

5 MR. SLATER: We have covered sort of in a general way
6 what your methodology was and what you found. Can you go to
7 the specifics beginning with alternative 4C?

8 MR. ROSS: Alternative 4C. The groundwater flow
9 direction in alternative 4C is towards the southwest, which
10 is parallel to the river. So groundwater that would be
11 extracted in that area would not have flowed to the river
12 and, therefore, ultimately discharged to the river. Also,
13 the groundwater elevations in that area are substantially
14 lower than the American River, so groundwater could not
15 discharge to the American River.

16 MR. SLATER: Could you point that out?

17 MR. ROSS: The area we are pointing out on the river --

18 MS. OLSON: For the record, what exhibit?

19 MR. ROSS: This is 15?

20 MR. SLATER: Exhibit 17.

21 MR. ROSS: This is the 4C, the remedy where the
22 extraction wells are proposed to be installed and the
23 groundwater flow direction is towards the southwest. And
24 this is the American River, so the groundwater is moving in
25 a direction parallel to the river, indicating that it could

1 not discharge to the river. And secondly, the groundwater
2 elevations in this area are in the order of 20 to 30 feet
3 below the river elevation. Therefore, the groundwater could
4 not discharge to the river and that the river would be
5 losing water to the uppermost groundwater bearing surface.

6 MR. SLATER: What did you learn with regard to the GET
7 E/F facilities?

8 MR. ROSS: It is the same circumstance for the GET E/F
9 facilities. They are located within that same area.

10 MR. SLATER: And let's go to the extreme circumstance
11 that you mentioned earlier with regard to the three wells.
12 How about the ARGET system?

13 MR. ROSS: Yes. With the ARGET system, the ARGET is
14 similar to what we have seen at the GET E and GET F system
15 in that the groundwater elevations are below the river
16 elevation, indicating that the river is a losing stream.
17 However, that situation is not the case in this extreme
18 eastern portion of this site near Nimbus Dam where
19 groundwater levels are at or slightly above the river
20 elevation.

21 MR. SLATER: Again, that is three wells out of a total
22 of?

23 MR. ROSS: Fifteen wells extracting from the ARGET
24 system are located in that system where the groundwater is
25 discharging to the river, which is -- which would be

1 considered tributary to the river. A portion of the water
2 extracted from the wells which would be considered tributary
3 to the river.

4 MR. SLATER: Is that on all occasions or some of the
5 time?

6 MR. ROSS: In that area the majority of the time that
7 would be the case.

8 MR. SLATER: Now, looking then at your application of
9 the six methods, do you have -- can you apply those methods
10 and provide an opinion as to what portions, some, all or
11 none, of the groundwater is considered to be tributary to
12 the American River?

13 MR. ROSS: Yes. For 4C we considered that all of the
14 water would be nontributary to the river. And that is the
15 same case for extractions, GET extraction E and F, and we
16 considered that substantially all of the water that would be
17 extracted from the ARGET system would be nontributary to the
18 American River.

19 MR. SLATER: Let's take the last piece first. You say
20 substantially all of the ARGET. What does that mean?

21 MR. ROSS: That would mean that 85 percent of the water
22 that is extracted from the ARGET system would be considered
23 to be nontributary.

24 MR. SLATER: How did you come up with that percentage?

25 MR. ROSS: That is based on the fact we have not

1 included the two shallow extraction wells in that area in
2 our volume estimate of the total that would be extracted
3 from the total ARGET system.

4 MR. SLATER: So your conclusion is 85 percent of the
5 ARGET. How about the total that Aerojet is pumping and
6 discharging?

7 MR. ROSS: Ninety-eight percent of the water would be
8 considered nontributary.

9 MR. SLATER: Again run us through all -- how did you
10 come up with that?

11 MR. ROSS: That was looking at -- there are two wells
12 which would have water that would be considered nontributary
13 to the river. We would take that volume being approximately
14 on the order of 250 gallons a minute and dividing that by
15 the total amount of water that would be available which is
16 on the order of, I believe it is, 14,000, yeah, which would
17 give approximately 98 percent of total water extracted,
18 would be nontributary.

19 MR. SLATER: Mr. Ross, in your professional opinion
20 what degree of confidence do you have in the conclusions
21 that you offered in your report, Exhibit 9A?

22 MR. ROSS: I have a high degree of confidence.

23 MR. SLATER: Mr. Brown, do you concur in that
24 assessment?

25 MR. BROWN: Yes. I believe we have a high degree of

1 confidence.

2 MR. SLATER: Would your answers, your conclusions, be
3 any different if we used a different baseline for this
4 study, say, of 1958?

5 MR. ROSS: No, they would not.

6 MR. SLATER: What about 1963?

7 MR. ROSS: They would not.

8 MR. SLATER: 1970?

9 MR. ROSS: No.

10 MR. SLATER: And 1989?

11 MR. ROSS: No, they would not.

12 MR. SLATER: Mr. Brown, do you have any changes or
13 modifications that you want to offer if we use a different
14 baseline?

15 MR. BROWN: No, I don't. I concur with Mr. Ross.

16 MR. SLATER: I have no further questions and offer them
17 for cross.

18 H.O. SILVA: Why don't we take a quick break. Ten
19 minutes sufficient, 15? We will come back at 20 till.

20 (Break taken.)

21 H.O. SILVA: We are going to do cross now.

22 MS. GOLDSMITH: We would prefer to go last. We are not
23 certain that we have a lot of cross-examination, but --

24 H.O. SILVA: That's fine. I will allow that.

25 Just for everybody's benefit, Aerojet has asked to go

1 last on the cross, and I've allowed that.

2 Why don't we go with Department of Fish and Game? Do
3 you have any cross?

4 ----oOo----

5 CROSS-EXAMINATION OF SOUTHERN CALIFORNIA WATER COMPANY

6 BY DEPARTMENT OF FISH AND GAME

7 BY MS. DECKER

8 MS. DECKER: I would like to start with some questions
9 for Mr. Hanford.

10 Mr. Hanford, you discussed the approximate boundary of
11 Arden-Cordova service area. In addition to the Cordova
12 system, can you delineate -- I guess you cannot on that map
13 -- the Arden system. Let me go to my ultimate question
14 here. The larger map, that would be helpful.

15 Thank you.

16 Can you delineate generally, approximately the Arden
17 system?

18 MR. HANFORD: Yes, I can.

19 MS. DECKER: Can you do that for me, sir?

20 MR. HANFORD: The Arden system is denoted by this shade
21 of blue-gray, right here.

22 MS. DECKER: Let me ask you, based on your knowledge of
23 the region and the water use in the area, can you tell me is
24 there a regional cone of depression, that is a regional
25 pumping center, in that Arden area?

1 MR. HANFORD: I don't know.

2 MS. OLSON: For the record, that was Southern
3 California Water Company Exhibit 1.

4 MS. DECKER: I'm sorry.

5 For the record, that was Exhibit 1, Southern California
6 Water Company Exhibit 1.

7 In the opening and in your testimony you described
8 Southern California Water Company -- many of its wells were
9 owned by Natoma Water Company previously?

10 MR. HANFORD: Natomas Water Company.

11 MS. DECKER: Prior to finding contamination in your
12 wells that were previously owned by Natomas, you state that
13 you had 21 operating wells. Of the 21 operating wells how
14 many of those were owned by Natomas and operated in 1958?

15 MR. HANFORD: I'd have to return to that exhibit
16 previously introduced. Exhibit 7. And on Exhibit 7, I am
17 unsure of the date of construction of the one well, the
18 Charbonna well. Assuming this was constructed sometime
19 between 1951 and '55, that would be 1, 2, 3, 4, 5, 6, 7, 8
20 if we included the two wells constructed in 1958.

21 MS. DECKER: So eight wells of the 21 were in place in
22 1958. Of those wells do you have knowledge of how much
23 water was extracted in the year 1928 from those wells?

24 MR. HANFORD: No, I do not.

25 MS. DECKER: Thank you, Mr. Hanford.

1 Mr. Brown, I have some questions for you.

2 You have testified that water from some of the Aerojet
3 wells are currently discharged into Buffalo Creek and in the
4 long run the level of extraction will increase and much of
5 that water will go into Buffalo Creek

6 Can you please describe Buffalo Creek for me?

7 MR. BROWN: Certainly. I would perhaps best to
8 describe the on-site portion of Buffalo Creek; that is the
9 portion on the Aerojet property. Mr. Ross described the
10 off-site portion.

11 MS. DECKER: That would be fine.

12 Thank you.

13 MR. BROWN: On the Aerojet property Buffalo Creek is
14 probably an unlined drainage channel. In areas it is just a
15 natural drainage course; that is, it still is in its
16 original form as a stream. In some areas the area has been
17 channelized, but the banks are unlined and the bed is
18 unlined.

19 MS. DECKER: Is it a drainage ditch? Is it other --

20 MR. BROWN: Portions of the site are still the original
21 form of Buffalo Creek. In certain portions it has been
22 channelized to resemble more of a drainage ditch. Its
23 depth varies. On the extreme eastern portion of the Aerojet
24 property, the actual creek itself is mainly going to be a
25 foot or two deep, wherein the areas towards the eastern

1 portion is probably in excess of ten feet deep.

2 MS. DECKER: Mr. Ross, do you have anything you want to
3 add to that?

4 MR. ROSS: On off-site of the Aerojet facility it is
5 more of a channelized ditch with steep sides and it is not
6 lined.

7 MS. DECKER: Thank you.

8 Back to you, Mr. Brown.

9 Assuming that the Board and EPA do not order additional
10 increases in groundwater pumping or add additional
11 extraction wells and in the future, which may not be the
12 cause, but let's assume that for today, what is the total
13 water that you understand Aerojet will be pumping that will
14 ultimately be discharged into Buffalo Creek or American
15 River that Southern California seeks to appropriate?

16 MR. BROWN: If we assume that they proceed with the
17 Alternative 4C, as indicated in the ROD, the total
18 groundwater extraction that will be discharged will be
19 approximately 17,000 gallons per minute.

20 MS. DECKER: Which is how many acre-feet per year?

21 MR. BROWN: That is about 27,000 acre-feet per year.

22 MS. DECKER: You testified that Aerojet discharges to
23 Buffalo Creek from groundwater treatment operations that
24 began in 1998; is that correct?

25 MR. BROWN: That's correct.

1 MS. DECKER: Are you familiar with historic discharges
2 from Aerojet operations, manufacturing operations,
3 wastewater operations, wastewater treatment facilities,
4 that existed in 1958 that no longer discharge into the
5 American River or Buffalo Creek?

6 MR. BROWN: If I understand the question, I am familiar
7 with historical discharges to Buffalo Creek by the
8 operations at Aerojet.

9 MS. DECKER: Do you know the level of discharge that
10 was historic that no longer is occurring today from Aerojet
11 operations? What is the difference in that discharge?

12 MR. BROWN: I've not completed that calculation to
13 date, no.

14 MS. DECKER: Mr. Brown, you appear to be very familiar
15 with the Southern California area and the American River
16 system. Can you tell me if there is a regional cone of
17 depression, pumping depression, near the study area, north
18 or south of the American River, and, if so, can you please
19 show me on the map and describe it?

20 MR. BROWN: I shall refer you to Mr. Ross because he is
21 more familiar with the regional groundwater extraction.

22 MR. ROSS: Yes. On the map I can show you
23 approximately where there are regional cones of depression.

24 MS. DECKER: Could you do that for me, please?

25 MR. ROSS: There is a regional cone of depression on

1 the south due to a lot of irrigation pumping, and in
2 approximately this area.

3 MS. DECKER: Would you name that area for the record,
4 please?

5 MR. ROSS: I am sorry I can't.

6 MS. DECKER: What does it say on the map? I can't
7 read; I'm half blind.

8 MR. ROSS: It's south of that area. I'm more used to
9 looking at regional groundwater distribution maps. So it is
10 south of the -- southwest of the Arden-Cordova system, or
11 Southern California water quality system.

12 MS. DECKER: By what distance do you think?

13 MR. ROSS: On the order of ten miles.

14 MS. DECKER: Could you tell me north of the river is
15 there a cone of depression, north as well?

16 MR. ROSS: Yes, there is. I think -- I believe it is
17 located up in this area.

18 MS. DECKER: Where were you pointing, if you could
19 give it a name?

20 MR. ROSS: Near the McClellan Air Force Base, in that
21 general area.

22 MS. DECKER: That is McClellan Air Force Base?

23 MR. ROSS: Yes.

24 MS. DECKER: Let the record reflect that he is using
25 Exhibit 2, a map of the Rancho Cordova system.

1 Thank you, Mr. Ross. Mr. Brown, I'm finished with
2 you.

3 Mr. Ross, I have several questions for you, if you
4 would.

5 MR. ROSS: Should I remain standing?

6 MS. DECKER: No. Relax.

7 It is my understanding that your testimony is based in
8 part on the Komex report and its findings; is that correct?

9 MR. ROSS: Correct.

10 MS. DECKER: Can you tell me who's the principal author
11 of the Komex report?

12 MR. ROSS: I was the principal author.

13 MS. DECKER: Thank you.

14 Keep in mind I'm an attorney asking these questions,
15 and I am trying to understand.

16 In various places in testimony you talk about no
17 potential for groundwater to be tributary to the American
18 River. With the exception of near Nimbus Dam are you saying
19 the groundwater does not discharge from the aquifer to the
20 river?

21 MR. ROSS: Correct.

22 MS. DECKER: I got it.

23 In your testimony and in the Komex report am I correct
24 in understanding that you have concluded that the American
25 River likely -- that the American River likely recharges

1 groundwater in approximately two-thirds of the study area?

2 MR. ROSS: I guess -- the study area being?

3 MS. DECKER: Along the American River from the dam to
4 just below the Aerojet property.

5 MR. ROSS: Yes. In the immediate vicinity of the
6 river, yes.

7 MS. DECKER: Right in that area. Okay. So it is
8 recharging the groundwater.

9 Mr. Ross, in the Komex report, in the conclusions
10 section, I have this highlighted if you would like me to
11 show you the report to refresh your memory, it sites
12 numerous historical studies conducted by various agencies,
13 including Bulletin No. 118-3 from 1974, evaluation of
14 groundwater sources, Sacramento County among others. The
15 Komex report reiterates that the Department of Water
16 Resources in that report found 64,000 acre-feet per year of
17 river water recharge to the uppermost aquifer bearing zone.

18 Have you done any calculations to update DWR's recharge
19 estimate of 64,000 acre-feet per year?

20 MR. ROSS: No, we have not.

21 MS. DECKER: In your Komex report, various places, it
22 states that the groundwater levels have declined in the area
23 since 1940, and you have further testified to that today and
24 I believe Mr. Brown might have also. Mr. Ross did. All
25 right.

1 In operable unit three the report states groundwater
2 dropped about 30 feet since 1962 and 50 feet in other areas
3 since 1953.

4 Do you have an opinion, based on your research and your
5 expertise, as to what has caused the decline in these
6 groundwater levels?

7 MR. ROSS: That would be groundwater extraction in
8 these areas.

9 MS. DECKER: Pumping?

10 MR. ROSS: Correct.

11 MS. DECKER: In your testimony this morning you stated
12 that there is no hydraulic connections between the river and
13 the uppermost aquifers; is that correct? Did I hear that
14 correctly?

15 MR. ROSS: Along most, correct, you did, except in the
16 area near Nimbus Dam.

17 MR. BROWN: The phrase was actually "direct hydraulic
18 connection."

19 MS. DECKER: Direct hydraulic connection, that is
20 important.

21 Can you tell me is there hydraulic continuity between
22 the underlining aquifers and the American River?

23 MR. BROWN: Could I take that question?

24 MS. DECKER: Sure.

25 MR. BROWN: I'm going to refer to three figures that we

1 have within our report. That is Exhibit 9A, and that figure
2 is of 3-1, 3-2 and 3-3. Unfortunately not everybody in the
3 audience has a copy of those figures, but in simple terms I
4 could actually draw it on the back of one of these
5 exhibits.

6 MS. DECKER: That is fine with me if it is all right
7 with the Board Members.

8 Ms. Olson said as long as you are drawing what is
9 actually in the exhibit, that is the same, that's fine. If
10 you add something to it, I assume you add another exhibit,
11 update the exhibit list.

12 MS. GOLDSMITH: For those of us who have it, what
13 exhibit number is it?

14 MR. BROWN: Exhibit 9A, under the figures tab, it is
15 Figures 3-1, 3-2, and 3-3.

16 What I will draw is very simplified versions of these.
17 These are color graphics. My optic skills and time would
18 limit my ability to reproduce them identically.

19 MR. ROSS: We don't have color markers, as well.

20 MS. DECKER: I would ask you draw the most direct
21 response to the question, rather than all three, because I
22 realize there are three, which is important background, but
23 given the time limits.

24 MR. BROWN: I will draw what is indicated as Figure
25 3-2.

1 MS. DECKER: That is great.

2 Thank you.

3 H.O. SILVA: Not too bad.

4 MR. SLATER: Art school was on his CV.

5 MR. BROWN: Do I sign it as well?

6 What I have drawn is a very simplified version of
7 Figure 3-2 from Exhibit 9A, depicting the hydrologic
8 condition of the American River throughout much of the study
9 area. The elevation of the American River is substantially
10 higher than the elevation of the groundwater. And there is
11 an area of separation within the sediments, between the
12 base of the American River and groundwater surface, where
13 those sediments are not fully saturated. That is bed loss
14 from the river and has to percolate through partially
15 saturated sediments before it eventually recharges
16 groundwater. Therefore, that is why there is not direct
17 hydraulic communication. There is a degree of communication
18 because bedrock does eventually reach groundwater; and that
19 is true for the majority of rivers in the state of
20 California that are losing streams.

21 MS. DECKER: Thank you.

22 Mr. Ross or Mr. Brown, whichever prefers to answer the
23 question. Mr. Ross, in particular, on Page 4 of your
24 testimony, Line 7, you state that you found sediments in the
25 bottom of the river and the uppermost level of the water is

1 most likely in an unsaturated state, which goes back to your
2 explanation just now.

3 Did you take samples to verify whether sediments in the
4 bottom of the river are saturated?

5 MR. ROSS: No, we did not. We inferred that from the
6 various independent lines of evidence which we discussed.

7 MS. DECKER: But you did not take any samples to
8 verify that?

9 MR. ROSS: Correct.

10 MS. DECKER: Did you -- based on the drawing and your
11 assumptions of the hydrogeology, did you quantify the
12 leakage from the American River into groundwater?

13 MR. ROSS: No, we did not.

14 MS. DECKER: Mr. Ross, I would like to show you Figure
15 3-2, the hydrologic cross-section, A', that comes from
16 Southern California' Exhibit No. 18, from the GET
17 effectiveness report. I will bring it over. I am sure
18 you've seen it before. This figure shows the American River
19 highlighted in blue and the surrounding hydrogeologic
20 cross-sections. For the benefit of Mr. Silva and the staff
21 and everyone else, I will show it to you before I give it to
22 Mr. Ross.

23 MR. SLATER: Counsel, what exhibit was that?

24 MS. DECKER: It is Southern California' Exhibit 18 from
25 the GET effectiveness report, Figure 3-2, hydrogeologic

1 cross-section A, A'. I apologize for not having it. We
2 planned to use overheads and don't have them.

3 You see that is Figure 3-2, hydrogeologic cross-section
4 map. Mr. Ross, can you tell me in this figure which has a
5 higher elevation, the bottom of the river channel or the
6 groundwater surface elevation of Well 15-16?

7 MR. ROSS: Could you repeat that question, please?

8 MS. DECKER: Can you tell me which has a higher
9 elevation, the bottom of the river channel, the thalweg, or
10 the groundwater surface elevation of Wells 15-16?

11 MR. ROSS: From this figure?

12 MS. DECKER: From this figure. Or your knowledge of
13 Well 15, 16 and the thalweg in the American River.

14 MR. ROSS: I could take a look. I think we have that
15 as one of our hydrographs in our report. I need to refer to
16 it.

17 MS. DECKER: Please do.

18 MR. ROSS: From our analysis what we found at that
19 location is that the river level is higher than the water
20 level in 15-16. As far as the elevation of the bottom of
21 the river, I do not know what that would be at that
22 particular location.

23 MS. DECKER: But the river level is higher than the
24 thalweg, correct?

25 MR. BROWN: It is, but the head condition of the

1 thalweg is the same as the head condition at the surface of
2 the river. Because groundwater or any water moves in a
3 condition of high total head to low total head. That head
4 is comprised of two components, the elevation of monitoring
5 point and the pressure head above the monitoring point.
6 The total head at the base of the river is the same as the
7 total head at the surface of the river. Even though the
8 elevation has changed, pressure head has increased so that
9 two have the same total head. Therefore, the total head of
10 the river at any location is higher than the total head of
11 the groundwater system.

12 MS. DECKER: Having said that and given your figure and
13 the elevation of the surface water and the water level in
14 the river, is there hydraulic continuity between Wells 15-16
15 and the river, continuity?

16 MR. BROWN: They are part of the same hydrogeologic
17 system. Therefore, there is a connection hydrologically,
18 but it isn't direct because they are separated by some
19 saturated sediments.

20 MS. DECKER: Thank you.

21 Let me ask that again because he would like to have
22 that answer. Do you know the difference between the
23 thalweg and the surface elevation of 15-16?

24 MR. ROSS: It is our understanding that on average the
25 depth of the river could be about seven feet in that area.

1 So that would indicate that the bottom of the river and the
2 water level elevation in 15-16, that the elevation of the
3 water in 15-16 is slightly higher than the bottom elevation
4 of the river.

5 MS. DECKER: Thank you.

6 MR. BROWN: This is the area of 15-16. It is the area
7 we refer to in the extreme eastern portion of the ARGET
8 where groundwater levels are very similar to the actual
9 surface water.

10 MS. DECKER: Contour, I have some questions about
11 contours, Mr. Ross. I would like to have you refer to the
12 contour maps which are included in your Exhibit 17, Figure
13 8-7 from ground layers A, B and C.

14 H.O. SILVA: Can I ask, while they are looking for
15 that, maybe for the rest of the people that could be doing
16 the crosses, maybe if you know which exhibits you are going
17 to be asking about, maybe if you can give them to the
18 witness so they can have it ahead of time. It would save
19 time for everybody, if you already knew of cross what you
20 were going to ask.

21 MS. DECKER: So many exhibits.

22 H.O. SILVA I know, but maybe it will save time if they
23 can start looking for them.

24 MR. SLATER: Counsel, again, within Exhibit 17 it is
25 identified as?

1 MS. DECKER: Figure A-7, groundwater contour maps,
2 contour maps of potentiometric surface.
3 Did you find it, Mr. Ross?
4 MR. ROSS: We have the map.
5 MS. DECKER: I appreciate your diligence in locating
6 them, and everyone else's.
7 Mr. Silva, would you like to see them briefly?
8 H.O. SILVA: Do you have the right figure?
9 MR. ROSS: Yes, we do.
10 H.O. SILVA: Why don't we get going.
11 MS. DECKER: In the upper left-hand quarter of Figure
12 A-7 for layer A, can you clarify for me are these
13 groundwater contours deflecting downstream?
14 MR. ROSS: No, they are not.
15 MS. DECKER: They are not?
16 MR. BROWN: I will clarify. In the extreme -- for the
17 majority of the figure that indicates that the ground flow
18 is away from the river. In the extreme eastern portion
19 directly downstream of Nimbus Dam, it indicates there is
20 flow towards the river for the first several hundred,
21 perhaps a thousand feet of the river's reach.
22 MS. DECKER: Near Nimbus Dam?
23 MR. BROWN: Correct.
24 MS. DECKER: Below that section are the ground contours
25 deflecting downstream?

1 MR. BROWN: If I understand what you mean by
2 "deflecting downstream" -- are you asking do the groundwater
3 contours indicate that the groundwater is flowing towards
4 the river or away from the river?

5 MS. DECKER: I am asking is the American river a losing
6 stream base on its contour lines?

7 MR. BROWN: Based on its contour lines below the area
8 of creeks you mentioned, the American River is a losing
9 stream.

10 MS. DECKER: Looking at Figure B A-8, layer B from
11 Exhibit 12, looking at those contour lines below Nimbus Dam,
12 do those contour lines also indicate that the American River
13 is a losing stream, in your opinion?

14 MR. BROWN: Again, aside from the first thousand feet
15 downstream of Nimbus Dam, the contours do indicate that the
16 American River is losing stream. It may be a gaining stream
17 immediately downstream of Nimbus Dam. Looking at this
18 figure, I should perhaps clarify one of your earlier
19 questions where you asked me about the area of Well 15-16.
20 Based on groundwater elevation data that we looked at, it
21 may be that particular portion the sediments may, in fact,
22 be saturated because the water levels are so close to the
23 river elevation for that extremely short portion.

24 MS. DECKER: Could you please move to Figure A-9, layer
25 C --

1 You know, let's not, let's not, given the time.

2 Let me ask you: Given the contour lines and the fact
3 that you have, in your opinion, these contour lines do show
4 that in this area the American River is a losing stream, can
5 you explain to me where does that water go?

6 MR. BROWN: Certainly, yes. Most of the recharge water
7 that comes from the American River as bed seepage along the
8 area of investigation, recharges the groundwater in the
9 immediate vicinity of the river itself. We saw that in
10 particular when we looked at the geochemical composition of
11 waters, where the only area of mixing of surface water and
12 groundwater was immediately adjacent to the river.

13 MS. DECKER: Let me ask you another question. In the
14 western study area, in the Komex report's discussion of the
15 western study area, you also discussed hydrochemical results
16 for Aquifer C and D, and in the report it states that it had
17 a degree of mixing.

18 If there is a degree of mixing, isn't it true that at
19 least some American River water is recharging Aquifers B, C
20 and D?

21 MR. BROWN: Are you now referring strictly to immediate
22 vicinity of the river or for the entire 4C around the area?

23 MS. DECKER: In the western study area.

24 MR. BROWN: The geochemical data, and in particular
25 groundwater elevation flow data, indicated that the only

1 portion of the groundwater that would be subject to recharge
2 from the river would be in the immediate vicinity of the
3 river. The groundwater that is present in the majority of
4 the 4C area, vast majority, actually originally is
5 infiltrated surface precipitation to the east in the eastern
6 Sierra Foothills and on the Aerojet property itself.

7 MS. DECKER: I believe in your testimony, Mr. Brown's
8 testimony, you stated that the prevailing view in the
9 historical references -- correct that, Mr. Ross' testimony,
10 stated that the prevailing view in the historic references
11 is that there is no connection between the aquifers and
12 flows in the American River.

13 Is it your opinion that those historical references are
14 also saying there is no hydraulic continuity between the
15 aquifers and the flows?

16 MR. BROWN: No. In the realm of hydraulic continuity
17 they are all part of the same water system. And the water
18 from the American River will eventually recharge groundwater
19 in the immediate vicinity of the river.

20 MS. DECKER: Thank you.

21 On Page 47 of the Komex report you list all the
22 references you've relied before writing your testimony.

23 MR. SLATER: Again, that is 9A, Counsel?

24 MS. DECKER: Yes, 9A of the Southern California Water
25 exhibits. The end of the Komex report, Page 47, you list

1 all the references you relied on?

2 MR. ROSS: Yes.

3 MS. DECKER: Is that an accurate reflection of all the
4 references that you relied on?

5 MR. ROSS: These are the references that we made
6 reference to in our report.

7 MS. DECKER: So you did examine more than the
8 references you listed in that index report, in that index?

9 MR. BROWN: I think perhaps I can best answer the
10 question by saying we examined a great deal of information,
11 and only that information that we felt needed to reference,
12 that is we took a specific statement or a specific data
13 point from the report did we actually include as a
14 reference. But we are familiar with a much larger universe
15 of documents that are available for this study area.

16 MS. DECKER: Let me clarify. Because the Board asked
17 whether this was new water. And my understanding is that to
18 answer that question you had to know what the Board relied
19 on in 1958 in the water balance.

20 Did you rely on Exhibit 21, Volume II, the groundwater
21 studies, in preparing your report and your expert opinion
22 that determines that this is not new water? I will state it
23 again.

24 Did you rely on the Board's staff's year-long
25 investigation summarized in Bulletin 21, Volume II,

1 Appendix A, to determine whether or not this groundwater
2 extracted was considered by the Board in their groundwater
3 calculations in 1958, yes or no?

4 MR. ROSS: We reviewed that document, yes, but, no, we
5 did not.

6 MS. DECKER: I have no further questions for you.
7 Thank you.

8 MR. BROWN: Thank you.

9 MR. ROSS: Thank you.

10 H.O. SILVA: Next is the City of Sacramento.

11 MS. LENNIHAN: No questions.

12 H.O. SILVA: Thank you.

13 County of Sacramento have any questions?

14 MR. SOMACH: Yes, we do.

15 H.O. SILVA: Do you think you are going to be more than
16 a half hour? I just have to break at about a quarter till.

17 MR. SOMACH: I shouldn't take very long at all.

18 ---oOo---

19 CROSS-EXAMINATION OF SOUTHERN CALIFORNIA WATER COMPANY

20 BY SACRAMENTO COUNTY/COUNTY WATER AGENCY

21 BY MR. SOMACH

22 MR. SOMACH: The only question I have is what happens
23 if Aerojet asks a really outrageous question by making them
24 go last, I can't do anything about it?

25 MS. GOLDSMITH: We planned on it.

1 MR. SOMACH: They have done so many outrageous things
2 in the context of this groundwater basin, the question --

3 MS. GOLDSMITH: Objection.

4 H.O. SILVA: Now, now, now.

5 MR. SOMACH: That was argument that went --

6 H.O. SILVA: Sustained.

7 MR. SOMACH: That was argument, not evidence.

8 H.O. SILVA: Sustained.

9 Let's get to the questions.

10 MR. SOMACH: I will get to the questions. This is a
11 question I have for Mr. Hanford, Robert Hanford. It is a
12 question just for clarification purposes. In your draft
13 testimony and in your written testimony you indicate that
14 Aerojet pumps this water, meaning the water that has been
15 the subject of this hearing, from the same groundwater basin
16 from which the Cordova system pumps its groundwater supply.

17 Is that the same system that California American Water
18 Company and Sacramento County also pumps?

19 MR. HANFORD: I don't know.

20 MR. SOMACH: You indicated I believe that when you have
21 lost wells you've replaced them, and that the capacities of
22 those new wells was greater than the wells that you lost; is
23 that a correct paraphrase?

24 MR. HANFORD: The new wells that were constructed were
25 larger capacity wells.

1 MR. SOMACH: Are you going to lose those wells? Do you
2 know whether or not those larger capacity wells will be lost
3 through the contamination problem also?

4 MR. HANFORD: I can only speculate due to the
5 relationship to the wells that we have previously lost,
6 their proximity to those wells. I would anticipate we would
7 lose all of our wells.

8 MR. SOMACH: So that your testimony -- the question I
9 have is your testimony anticipates that; is that correct,
10 that you will be losing those larger wells?

11 MR. HANFORD: Yes.

12 MR. SOMACH: In your written testimony, Mr. Ross, which
13 refers back to your report, the Komex report, that report
14 talks about the fact that you have reviewed the Declaration
15 of Fully Appropriated Stream that was adopted -- both of the
16 declarations of fully appropriated streams that were
17 adopted; is that correct?

18 MR. ROSS: Yes. I reviewed those in a cursory
19 standpoint, yes.

20 MR. SOMACH: A fundamental point then, at this hearing
21 is the question I think of -- in fact, in your testimony,
22 let me -- in your testimony on Page 3 you say: I was asked
23 to analyze whether this discharge water, the water, again,
24 that we've been talking about that is being pumped, treated
25 and dumped by Aerojet, whether or not that constitutes new

1 water. And I notice you put new water in quotes.

2 What is your understanding of what you're talking about
3 when you talk about "new water"?

4 MR. ROSS: That would be water which would not have
5 been discharged to the river. So it would be considered
6 nontributary.

7 MR. SOMACH: You are not suggesting that that new
8 water, in quotes, is water that was not already being relied
9 upon by other people who pump water out of the groundwater
10 basin. Including Southern California Water Company?

11 MR. ROBINSON: I'm going to object. That is not
12 relevant.

13 MR. SOMACH: The question of what new water is, what
14 could be more relevant to these hearings.

15 MR. ROBINSON: Whether water is relied upon by other
16 entities is not relevant to whether there is new water going
17 into the river. Is just as irrelevant as --

18 MR. SLATER: I actually did not object because I do
19 believe it is relevant, and it is relevant as part of what
20 the historical base condition was, whether the groundwater
21 was historically produced and relied upon by Southern
22 California Water Company, the County, Cal Am, and others.

23 H.O. SILVA: I'm going to allow the question.
24 You can answer.

25 MR. BROWN: As I understand the question, that we did

1 understand that that water was relied upon by purveyors in
2 the area.

3 MR. SOMACH: In that context and as I read the Komex
4 report, it is my understanding that what you are saying is
5 that you can actually trace the water that otherwise would
6 be in the groundwater basin as it is pumped and as it moves
7 its way to the American River. Is that part of the heart of
8 your testimony?

9 MR. BROWN: In simple terms, yes. Based upon the --

10 MR. SOMACH: It is the only way I can handle it, very
11 simple.

12 MR. BROWN: We try to make them complicated. In simple
13 terms, yes. Through the groundwater elevation data and the
14 groundwater flow directions we determine from that, and also
15 the geochemistry data, both the contaminants and natural
16 ions in the water, we can determine where the water came
17 from and which well it actually flowed to and whether it
18 flowed towards the American River and discharged to the
19 American River or whether the American River actually
20 recharges the groundwater.

21 MR. SOMACH: Let me ask you. There was discussion in
22 your testimony and I noted that it came up again in the
23 Department of Fish and Game cross-examination again. In
24 simple terms, is the concept of this being a losing stream
25 being something along the lines of if you pump a lot of

1 groundwater out of the groundwater basin and you make a big
2 hole, the American River rushes in to fill that hole. Is
3 that what you mean by losing river?

4 MR. BROWN: Actually, no, that is not the case. The
5 American River is a losing stream because the elevation of
6 river is higher than the elevation of the adjacent
7 groundwater, and due to the availability, the bed allows
8 seepage of the water from the river into the subsurface
9 sediments.

10 With regards to the pumping activity you mentioned,
11 because throughout much of the reach of the American River
12 there are unsaturated sediments directly beneath the river
13 and the groundwater elevations are substantially lower than
14 the river, increased pumping will not increase the amount of
15 seepage from the bed of the river.

16 MR. SOMACH: That is all the questions I have.

17 Thank you.

18 H.O. SILVA: Thank you, Mr. Somach.

19 I have the U.S. Bureau. Do you have questions?

20 MR. TURNER: Based on Mr. Somach's thorough
21 cross-examination, I have no questions.

22 H.O. SILVA: Okay.

23 Regional Board.

24 MS. GEORGE: No questions.

25 H.O. SILVA: Cal America.

1 MS. DRISCOLL: No questions.

2 H.O. SILVA: We are down to staff.

3 Any questions?

4 ---oOo---

5 CROSS-EXAMINATION OF SOUTHERN CALIFORNIA WATER COMPANY

6 BY STAFF

7 MS. OLSON: I was hoping you could clarify on Exhibit 4
8 where the 4C alternative is going to take place?

9 MR. BROWN: We actually refer to Figure 4-6, which is
10 taken from Exhibit 17 which indicates the extraction wells
11 for the 4C remedy, and those are the black triangles on that
12 figure.

13 MS. OLSON: Can you indicate that on Exhibit 17, where
14 the GET E and F facilities are?

15 MR. BROWN: The GET E and F facilities are located in
16 the extreme western portion of the Aerojet facility. In
17 fact, here is the GET E and F gravel treatment system, that
18 black box right there. The extraction wells peripheral the
19 area of the western boundary of the Aerojet facility.

20 MS. OLSON: You indicated that at this time that is not
21 being discharged to Buffalo Creek, but it will be in the
22 future?

23 MR. BROWN: That is my understanding.

24 MS. OLSON: Along with the 4C alternative?

25 MR. BROWN: Correct.

1 MS. OLSON: Thank you.

2 H.O. SILVA: Perhaps with the little bit of time here,
3 we finished earlier than I thought, on the dates right now
4 we have June 13th and we have mentioned before we have the
5 possibility of June 10th. Apparently that creates a problem
6 for Aerojet.

7 Do you want to cross?

8 MS. GOLDSMITH: No.

9 H.O. SILVA: Okay. We have the 14th now which is the
10 day after the 13th, obviously.

11 MR. SLATER: Mr. Silva, we did have -- I didn't know
12 whether you were going to allow us to do some limited
13 redirect. I only have one question to clarify following
14 that cross.

15 H.O. SILVA: That would be fine. I was just thinking,
16 given the fact that we've gone so quickly through here, we
17 may not need another day. We may not need the 14th, given
18 the fact that we are going so quickly through this. But as
19 a backup, is the 14th a possibility?

20 MS. GOLDSMITH: That would work for me.

21 H.O. SILVA: Mr. Slater, you are the important one
22 here. Again, I've got a feeling we may not even need it,
23 just to be -- better to be safe than sorry.

24 MS. LENNIHAN: Mr. Silva, are you inquiring if all the
25 parties are available for the 14th of June?

1 H.O. SILVA: Well, yes. Just to have it as a backup,
2 the 14th.

3 MS. LENNIHAN: No. Sorry about that.

4 MR. SLATER: Mr. Silva, we are available and happy to
5 accommodate.

6 H.O. SILVA: We will play it by ear. We will leave the
7 14th, we will see what happens.

8 The only problem is we have to the end of July. I
9 really don't want to take another month.

10 MS. DECKER: I would beg that we get this done before
11 the end of July. I will be leaving state service, and it
12 would be really helpful for Fish and Game to not to have to
13 have somebody start from ground zero. I can always come
14 back without pay for a day, but I'd rather -- put in enough
15 hours without pay here.

16 H.O. SILVA: Let's try to get done by the 13th. I am
17 willing to work late on the 13th, as a matter of fact.

18 MS. DECKER: I will stay all night.

19 H.O. SILVA: That's an option, if everybody is willing
20 to stay late the 13th, that is another option. We'll just
21 try to get it done that day rather than schedule another
22 day.

23 MR. SLATER: We are happy to accommodate that as well,
24 Mr. Silva.

25 H.O. SILVA: Okay, great.

1 MS. MCCUE: Can you clarify that the exhibit that you
2 were discussing earlier, I think you said Exhibit 15?
3 Figure 3-29 is Exhibit 18.

4 MR. SLATER: Yes, sorry. We meant to reference Exhibit
5 18; 18 is the proper Southern California Water Company
6 exhibit.

7 ----oOo----

8 REDIRECT EXAMINATION OF SOUTHERN CALIFORNIA WATER COMPANY

9 BY MR. SLATER

10 MR. SLATER: My question is actually for either. I
11 guess I'll go for you, Mr. Ross.

12 On direct I inquired as to how you were able to
13 determine that only 2 percent of the total quantity of water
14 pumped, treated and dumped pursuant to the treatment
15 operation was nontributary. And you provided a mathematical
16 calculation.

17 Remember that?

18 MR. ROSS: Yes, I do.

19 MR. SLATER: Would you like to walk us through that
20 again?

21 MR. ROSS: What we did is we took two of the shallowest
22 extraction wells on the eastern most side of the ARGENT
23 facility, and that would be wells 4325 and 4330. Those
24 combined flows are on the order of about 350 gallons per
25 minute. If we look at that small volume compared to the

1 total volume from the three systems, the ARGET, the GET E/F
2 and Alternative 4C, that is only 2 percent of the total of
3 volume which would be considered tributary to the river;
4 that is, 98 percent of water that is going to be extracted
5 would be considered nontributary to the American River.

6 MR. SLATER: Was that total gallon per minute, was that
7 14- or did you mean 17-?

8 MR. ROSS: I said 14-, and I meant 17-.

9 MR. SLATER: So the proper number for carrying out the
10 mathematical equation that you testified to would be 17,000
11 and not 14-?

12 MR. ROSS: Correct.

13 MR. SLATER: I have no further questions.

14 H.O. SILVA: Any recross from any party?

15 You want to move your exhibits?

16 MR. SLATER: Yes. We offer all of the previously
17 lodged exhibits. They were prepared under the control
18 either of Mr. Hanford or the Komex experts. They are
19 prepared in the ordinary course of business and they can be
20 authenticated, have been authenticated, sworn to, they are
21 attached declarations, and we offer them into evidence at
22 this time.

23 MS. OLSON: We know that not all the exhibits listed on
24 your list were referred to. You just want to move the ones
25 that were?

1 MR. SLATER: Actually, for purposes of the completeness
2 of the record, if people wish to voir dire on the additional
3 exhibits, we are happy to allow these witnesses to respond.
4 But we would like to move them all on the basis that they
5 were referred to and relied upon and a part of the record.

6 I believe my cocounsel has reminded me, advising me,
7 that the Komex report does make reference to these other
8 exhibits. So it is a based document which refers to those
9 others.

10 H.O. SILVA: That make sense.

11 Any objections from the parties?

12 Well, we will accept --

13 Go ahead.

14 MS. MCCUE: Exhibit 10 said sent under different
15 cover. I am not sure I have that.

16 MR. SLATER: Sorry, that exhibit was withdrawn. It was
17 never lodged.

18 H.O. SILVA: All the others?

19 MR. SLATER: With the exception of 10.

20 H.O. SILVA: All right.

21 Mr. Turner, how much time do you think you will take on
22 your opening statement?

23 MR. TURNER: Mr. Silva, you can go ahead and probably
24 present my opening statement and possibly even have Mr.
25 Renning summarize his testimony probably in about 15

1 minutes. The only thing I was going to ask, I thought about
2 -- we were hoping that we could use an overhead projector,
3 he would be able to use. This will be referring to certain
4 charts.

5 H.O. SILVA: That is fine.

6 MR. TURNER: We can maybe do this after lunch.

7 H.O. SILVA: Sure.

8 Why don't we break for an early lunch, then. Try to
9 meet at 12:45.

10 Is that okay with everybody? A little bit over an
11 hour, and we will make sure we get your overhead projector
12 and come back and go with the Bureau's opening statement.

13 MR. TURNER: Thank you very much.

14 H.O. SILVA: If you can also let us know -- a very good
15 point -- what kind of equipment you need ahead of time.
16 That would help staff.

17 (Luncheon break taken.)

18 ----oOo----

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1 AFTERNOON SESSION

2 ---oOo---

3 H.O. SILVA: We will resume testimony with the Bureau
4 of Reclamation.

5 MR. TURNER: Thank you very much.

6 As you stated earlier, Mr. Silva, and as is stated in
7 the notice of the prehearing conference and this particular
8 hearing, the subject of this whole proceeding is whether the
9 State Board should, in fact, allow it to accept and process
10 water rights applications to appropriate treated groundwater
11 from the American River. Essentially you are asking us to
12 advise you of our position with respect to revising the two
13 existing State Water Resources Control Board orders that
14 have been issued declaring the American River to be fully
15 appropriated. And what we have been addressing so far today
16 is the subject as to whether the water in question is new
17 water or whether it was, in fact, water that was taken into
18 account when the Board declared the river to be fully
19 appropriated.

20 What I am proposing today is another reason why we feel
21 that that declaration of the river being fully appropriated
22 should not be revised. And that is not just related to
23 whether this is new or old water, so to speak, but it is
24 premised on the fact that even if this is water that was not
25 taken into account when the streams were declared fully

1 appropriated, if, in fact, allowing the appropriation of
2 that water by another party would, in fact, interfere with
3 the ability of the existing water right holders to fully
4 exercise their permits, that is not an appropriate
5 interpretation of the intent of the state in allowing
6 appropriations of water.

7 In my written opening statement I had pointed out to
8 you on Page 2 that in the situations in which we are looking
9 at appropriations of water, the Court, the California
10 Supreme Court, in Butte Canal and Ditch Company versus
11 Vaughn lawsuit had made it very clear, I will just read from
12 the quote, that the prior right to the use of the natural
13 water of the stream does not entitle the owner of such a
14 right to the exclusive use of the channel so long as the
15 right is not interfered with, there is no reason why the bed
16 of the stream may not be used by others as a channel for
17 conducting water.

18 I am emphasizing there that the opening phrase is "so
19 long as the right is not interfered with." If the
20 plaintiffs in the present case can receive their full supply
21 as previous to the introduction of water by defendant, they
22 have no cause to complain. But the position we are stating
23 here in this case, allowing another appropriator to come in
24 and divert this treated water that is being introduced into
25 the American River will, in fact, interfere with the Bureau

1 of Reclamation's ability to fully implement the water rights
2 that it already has on the American River.

3 I also cite in my opening statement to two cases which
4 I think are very relevant to this whole question that we are
5 dealing with. The first one that I cite is Eddy versus
6 Simpson, which was decided in 1853 by the California Supreme
7 Court is almost directly on point. We had a situation there
8 where an appropriator of water from Grizzly Cannon and
9 Bloody Run decided to bring that water over into another
10 river over into Shady Creek, and then to construct a dam on
11 that river so they could divert this new introduced water.
12 But it was pointed out that that was going to interfere with
13 the plaintiff who had an existing water right on Shady Creek
14 to exercise their rights. It was going to interfere with
15 their implementation of their right on that source. The
16 California Supreme Court held that that was not an
17 appropriate use of this water, that it could not be
18 recaptured by the introducing party to the detriment of an
19 existing party on the river.

20 Similarly, the second case I cite, and I don't know for
21 a fact whether this is the case or not, but if you look --
22 if you look at the name of the case, Kelly versus that
23 Natomas Water Company, I get the impression that the
24 defendant in the lawsuit may very well have been the entity
25 from whom Southern California acquired some of their rights

1 to the wells. But in any event, the same thing was held
2 there, that you could not come over and introduce water into
3 a system and then divert that water to the detriment of
4 people who had the senior rights on the river.

5 So that is the premise that we want to pursue. So we
6 are not taking about whether Southern Cal should or should
7 not be allowed to appropriate the water. We are talking
8 about the fact as to whether this water should be allowed to
9 be appropriated by anybody to the detriment of the senior
10 water right holders on the American River. We, therefore,
11 feel that the river should not be declared -- that the fully
12 appropriate aid status should not be revised and that the
13 river should retain that status.

14 So I'm proposing to call one witness, Bureau employee
15 John Renning who would be explaining to you how we feel the
16 appropriation of this, if we want to call it the new water
17 or this water in question would interfere with the
18 district's operation of its water rights. But before we do
19 I would like to mention just one thing. Just for the
20 Board's information.

21 We will be presenting one revised exhibit to the -- one
22 that we presented earlier. I will have Mr. Renning explain
23 what that is, and I will have extra copies of those exhibits
24 available for the people who are in attendance, too, if they
25 would like to pick those up for inclusion in their files.

1 DIRECT EXAMINATION OF BUREAU OF RECLAMATION

2 BY MR. TURNER

3 MR. TURNER: Mr. Renning, would you please present your
4 full name for the record?

5 MR. RENNING: My name is John A. Renning.

6 H.O. SILVA: Were you sworn in?

7 MR. RENNING: Yes, I was.

8 H.O. SILVA: Thank you.

9 MR. TURNER: By whom are you employed, Mr. Renning?

10 MR. RENNING: I work for the Bureau of Reclamation.

11 MR. TURNER: What is your job title with the Bureau?

12 MR. RENNING: I'm the regional water rights officer.

13 MR. TURNER: What are your primary functions, dealing
14 with water rights or contracts or both?

15 MR. RENNING: Primarily with water rights, to
16 administer the Bureau's water rights and do other matters
17 associated with the administration of those rights.

18 MR. TURNER: Mr. Renning, did you prepare the document
19 entitled Testimony of United States Bureau of Reclamation
20 Before State Water Resources Control Board at a Hearing on
21 Declaration of Fully Appropriated Stream Systems Regarding
22 the American River, Sacramento, California, dated May 31,
23 2002?

24 MR. RENNING: Yes, I did.

25 MR. TURNER: That has been listed as Exhibit 15,

1 correct?

2 MR. RENNING: I don't know if it has a number or not.

3 MR. TURNER: In our exhibit identification index we did
4 identify that as Exhibit 14.

5 MR. RENNING: Okay.

6 MR. TURNER: Did you have any involvement in preparing
7 Bureau Exhibits 1 through 13, which consists of Plate No. 1
8 from D-1400 and then annual tables identified as Delta
9 conditions and Nimbus releases?

10 MR. RENNING: Yes. Those were prepared under my
11 direction.

12 MR. TURNER: Mr. Renning, I'd appreciate if you can do
13 this for me. Number one, if you could summarize your
14 written presentation and then also explain to the members of
15 the audience and the Board Members how they should be
16 reading the exhibits that you introduced so that they will
17 better understand what they are revealing.

18 MR. RENNING: Okay. My testimony will address the
19 primary issue that the State Board identified in its notice
20 for this hearing: Should the State Board revise the
21 Declaration of Fully Appropriated Stream System regarding
22 the American River to allow the Division of Water Rights to
23 accept and process water right applications to appropriate
24 treated groundwater discharged into the American River?

25 The answer to that question is no. There is no

1 evidence that Reclamation is aware of that would support a
2 revision of that declaration. In fact, the evidence
3 supports the declaration as it currently exists. The State
4 Board's determination that the American River was fully
5 appropriated for the period July 1st through October 31st
6 was based on evidence presented in a number of water right
7 hearings resulting in decisions regarding the American River
8 and Delta.

9 The evidence presented in those hearings showed that
10 unappropriated water ceases to exist on the American River
11 system for the summer and fall of most years. This is shown
12 on USBR Exhibit 1.

13 USBR Exhibit 1 is plate one from the Board's decision
14 1400. What this shows is that the -- it compares the full
15 natural flow on the American River to various required
16 releases that would be made from Folsom Dam. During those
17 periods when the required releases from Folsom Dam are
18 greater than the inflow, that is evidence that
19 unappropriated water has ceased to exist. Those releases
20 have to be made by storage releases from Folsom Dam at that
21 time.

22 In my written testimony I note that this was presented
23 at the -- this is based on evidence that was presented at
24 the D-1400 hearings in the early 1970s. And as you will
25 note from the note on this exhibit, this came from evidence

1 that was presented in 1967.

2 Decision 1594 of the State Board addresses conditions
3 on the -- which addresses conditions on the Delta watershed
4 also concluded that unappropriated water does not exist in
5 the summer months of most years. Actual operations bear out
6 the conclusions of these decisions. USBR Exhibits 2 through
7 13 show the operations of Folsom Reservoir and the American
8 River for the period 1990 through 2001.

9 MR. TURNER: Let me interrupt you for a second, if I
10 could. Maybe you could explain the basis for wanting to
11 revise Exhibit 9.

12 MR. RENNING: Okay. Exhibit.

13 MR. TURNER: Exhibit 9 is the exhibit that is revealing
14 the water conditions in 1994; is that correct, Mr. Renning?

15 MR. RENNING: Yes, that is right. The Exhibit 9 that
16 was submitted to all the parties and to the State Board
17 earlier had an error on it. The Folsom inflow, the green
18 line on this exhibit, that was on the original exhibit that
19 was for 1995 not for 1994. This is the corrected exhibit.
20 And as you will note the inflow to Folsom Reservoir during
21 the summertime period is much less than the releases being
22 made from Folsom at that same time, which is the point of
23 our testimony.

24 These exhibits, Exhibits 2 through 13, contain the
25 following information: Inflow to Folsom Reservoir, releases

1 from Nimbus Reservoir, the periods that the Delta is in or
2 out of balance, and the periods that the conditions for Term
3 91 implementation are in place.

4 A brief word of explanation. Nimbus Reservoir is the
5 regulating reservoir below Folsom Dam. That is the point at
6 which releases are made to the Lower American River.

7 From this information it is apparent that the period
8 the State Board has declared the American River fully
9 appropriated, that is July 1st through October 31st, is also
10 the period that, generally, releases from Folsom Reservoir
11 are greater than that inflow to Folsom. The Delta is in
12 balance. And Term 91 conditions are in place.

13 As you can see here for 1994, during the period
14 approximately from June 1st through September 1st, releases
15 were greater than the inflow to Folsom. The Delta was in
16 balance. That is shown by the red cross-hatching on the
17 exhibit. And Term 91 was in place roughly from the period
18 mid June through the end of August. That is shown by the
19 blue bar on the bottom of the exhibit.

20 I will show you several other years. This is year
21 2000, which was, of course, last year, and that may be in
22 your memory a little bit more than other years. Again,
23 approximately from the period June 1st through September,
24 September 1st, Term 91 was in place. The Delta was in
25 balance for a longer period and releases from Folsom were

1 greater than inflow for a longer period as well.

2 MS. OLSON: Can you state which one you are looking at?

3 MR. RENNING: This year is 1998.

4 MR. TURNER: John, that last exhibit that you were
5 showing, that was for what, 2000 or 2001?

6 MR. RENNING: That was for year 2001, and that is USBR
7 Exhibit 2. I'm sorry I did not reference that.

8 The exhibit that I am referencing now it is USBR
9 Exhibit 5. This is -- this shows conditions in 1998. As
10 you will note, the Delta was not in balance in 1998. So one
11 of the conditions that we are talking about here did not
12 exist. Term 91 is not -- actually two conditions were not
13 in place. Term 91 in addition is not in place because that
14 requires that the Delta be in balance. But, nonetheless,
15 during portions of that year beginning approximately mid
16 July through December, releases were greater than the inflow
17 to Folsom Reservoir.

18 Perhaps the most year that illustrates this the best is
19 1992. This is USBR Exhibit 11. And in 1992 the Delta went
20 into balance in May, stayed that balance for almost the
21 complete remainder of the year. Term 91 went into place in
22 mid May and stayed in place until mid November, and releases
23 from Folsom Reservoir were greater than inflow from
24 approximately the period May through September, or pardon
25 me, through the end of August.

1 The addition of flows in the range contemplated here,
2 that is five to 40 cfs from abandoned groundwater to the
3 American River system, does not change the conclusions that
4 were made as the result of these various decisions and the
5 conclusions that you would draw from the operations for the
6 past ten years. The groundwater that Aerojet is apparently
7 abandoning will be used by existing right holders, including
8 the United States to meet demands under their water rights.
9 Such water becomes available to right holders in the system
10 according to the priority of their right, and these senior
11 rights will use the water abandoned by Aerojet.

12 As noted, under current conditions no unappropriated
13 water exists on the American River system in the summer
14 months of most years, and the demands and requirements of
15 existing rights must be met with storage releases at those
16 times. Though this is not a topic for this hearing, we
17 would note that unappropriated water does not necessarily
18 universally exist during the remaining periods of the year;
19 that is outside the July 1st through October 31st period.
20 The availability of unappropriated water is a function of
21 hydrology, prior rights, and flow requirements for the
22 American River and Delta. These flow requirements may
23 change in the future.

24 Any permit issued for those periods may require terms
25 and conditions specific to the applicant's situation

1 regarding availability of unappropriated water and other
2 matters to protect existing water right holders.

3 That completes my testimony.

4 MR. TURNER: That would be all that we have to present
5 at this time. I would certainly be more than happy to make
6 Mr. Renning available for cross-examination.

7 H.O. SILVA: You can stay there.

8 Have any questions.

9 ---oOo---

10 CROSS-EXAMINATION OF BUREAU OF RECLAMATION

11 BY STAFF

12 MS. OLSON: Could you clarify what you mean when the
13 Delta is in balance and what decision that presents to you.

14 MR. RENNING: The term "Delta balance" refers to
15 the condition when the Central Valley Project and the State
16 Water Project are operating to meet a Delta standard, that
17 we are releasing just enough water to meet that standard
18 and no more. We actually operate to kind of a buffer
19 there. The term is defined within Coordinated Operations
20 Agreement.

21 MR. TURNER: That is the Coordinated Operations
22 Agreement between the Bureau -- between the United States
23 and the state, the Bureau and DWR, correct?

24 MR. RENNING: Yes. It's a commonly understood term
25 that is used in the context of project operations and the

1 standards in the Delta.

2 MS. OLSON: Do you have a date for that agreement?

3 MR. RENNING: The agreement was made in 1986. There is
4 lots of testimony in the hearing record for D-1641 that
5 references this condition and this term.

6 H.O. SILVA: Okay.

7 Go directly to cross by Southern California Water
8 Company.

9 ---oOo---

10 CROSS-EXAMINATION OF BUREAU OF RECLAMATION

11 BY SOUTHERN CALIFORNIA WATER COMPANY

12 BY MR. SLATER

13 MR. SLATER: Good afternoon, Mr. Renning.

14 MR. RENNING: Good afternoon.

15 MR. SLATER: I would like to start with a couple of
16 housekeeping items, if I can. Are you familiar with the
17 location of the South Sacramento groundwater basin?

18 MR. RENNING: Simply from the review of the information
19 that has been submitted for this hearing.

20 MR. SLATER: You have a general familiarity, basically?

21 MR. RENNING: Yes. But I would state here at the
22 outset that I am not a groundwater expert and should not --
23 I can't credibly address any questions regarding
24 groundwater.

25 MR. SLATER: That is helpful.

1 Do you know whether the Bureau of Reclamation extracts
2 any groundwater from the South Sacramento basin?

3 MR. RENNING: Not that I am aware.

4 MR. SLATER: You don't have any wells that you pull
5 water out of?

6 MR. RENNING: No.

7 MR. SLATER: Were you here for Mr. Hanford's testimony
8 this morning?

9 MR. RENNING: Yes.

10 MR. SLATER: Did you hear him testify that the Rancho
11 Cordova system has previously pumped as much as 14,000
12 acre-feet of groundwater?

13 MR. RENNING: Yes.

14 MR. SLATER: Do you have reason to disagree with that
15 estimate?

16 MR. RENNING: No.

17 MR. SLATER: Are you familiar, in a general way, with
18 the Aerojet pump, treat and dump operation?

19 MR. RENNING: From the review of the information that
20 has been submitted for this hearing.

21 MR. SLATER: You don't disagree with Mr. Brown's
22 testimony that discharge or the dumping, if you will, began
23 in approximately August of 1998, do you?

24 MR. RENNING: No.

25 MR. SLATER: Now I think I understood your testimony to

1 be that your estimate regarding the range of flows that
2 might be added by this discharge was between five and 40
3 cfs; is that right?

4 MR. RENNING: Yes.

5 MR. SLATER: Again, I'm a lawyer and I can oftentimes
6 use help in with converting, but during the lunch hour I
7 looked at your testimony and my understanding is that that
8 equates to the upper end about 17,900 gallons per minute?

9 MR. RENNING: Yes.

10 MR. SLATER: If I wanted to annualize that in the form
11 of acre-feet that would be 29,000 acre-feet?

12 MR. RENNING: That sounds about right.

13 MR. SLATER: Therefore, based upon your testimony, you
14 would agree, then, that if this discharge continued as
15 planned that it could add up to 29,000 acre-feet to Buffalo
16 Creek, correct?

17 MR. RENNING: Yes.

18 MR. SLATER: Assuming that there are nominal carriage
19 losses that as much as 29,000 acre-feet could be added to
20 the American River, right?

21 MR. RENNING: Yes.

22 MR. SLATER: Mr. Renning, have you ever been out to
23 Buffalo Creek? Do you know where it is physically?

24 MR. RENNING: I have not been in that area as result of
25 my work, but I am somewhat familiar with the area.

1 MR. SLATER: But you did read -- in preparing for your
2 testimony today you did read some prior State Board
3 decisions regarding the American River, right?

4 MR. RENNING: Yes.

5 MR. SLATER: You referenced D-1400, correct?

6 MR. RENNING: Yes.

7 MR. SLATER: What year was that decision?

8 MR. RENNING: It was either 1970 or '71, memory fails
9 me at the moment.

10 MR. SLATER: '70 or '71.

11 What D-1594, was it?

12 MR. RENNING: I believe that was in 1981.

13 MR. SLATER: I will take your word for it.

14 And in your review of those decisions there wasn't any
15 mention of inflow into the American River from Buffalo Creek
16 in the neighborhood of 29,000 acre-feet, was there?

17 MR. RENNING: No.

18 MR. SLATER: You have no basis or reason to believe
19 that there was inflow of 29,000 acre-feet at that time, do
20 you?

21 MR. RENNING: No, I don't.

22 MR. SLATER: And again to clarify your plate one, that
23 was offered as part of your testimony. When was that
24 developed?

25 MR. RENNING: Plate one is a photocopy of -- USBR

1 Exhibit 1, is a photocopy of plate one of the Decision 1400.

2 MR. SLATER: So that again would be a vintage, then,
3 early '70s, correct?

4 MR. RENNING: Yes.

5 MR. SLATER: Now, since you've agreed with me that
6 there wasn't any basis in the decisions which referenced a
7 discharge in the '70s of roughly 29,000 acre-feet, you
8 agreed with me on that, correct?

9 MR? RENNING: Yes.

10 MR. SLATER: You've also had no basis to disagree with
11 the testimony of Mr. Brown that Aerojet began discharging
12 water in 1998, correct?

13 MR. RENNING: That's right.

14 MR. SLATER: Therefore, I must conclude, then, it would
15 be proper to conclude that any water that they discharge
16 would be new water to Buffalo Creek, correct?

17 MR. RENNING: Well, I think this is a semantic question
18 here or semantic issues here. Certainly this is water that
19 was not being discharged before, but the point of my
20 testimony is that there are times at which this water is
21 being discharged into the American River, at which times
22 unappropriated water has ceased to exist and existing right
23 holders must make -- must either take shortages in their
24 diversions or rely upon storage releases to meet their
25 demands.

1 MR. SLATER: I understand your testimony. But first,
2 the question was do you concur or do you agree that this
3 previous -- this discharge did not previously exist,
4 correct?

5 MR. RENNING: That's correct.

6 MR. SLATER: With regard to your later part, I would
7 like to offer a hypothetical, if you will. Bear with me.

8 Assume for a second that Southern California Water
9 Company owns some land in Monterey. Okay. That is fact
10 one. Assume for a second, second fact, that they collect
11 ocean water, right, and about 29,000 acre-feet a year they
12 collect. That is the second fact.

13 Got it?

14 MR. RENNING: Yes.

15 MR. SLATER: Third fact, that they take the water and
16 they put it into tankers, the kind you drive on the road.

17 MR. RENNING: Yes.

18 MR. SLATER: They drive the water to Rancho Cordova.

19 MR. RENNING: Yes.

20 MR. SLATER: Got it. Okay.

21 They want to discharge or dump the water into Buffalo
22 Creek. Are you with me?

23 MR. RENNING: Yes.

24 MR. SLATER: And they want to recapture out of Buffalo
25 Creek.

1 MR. RENNING: Yes.

2 MR. SLATER: Would it be your contention that that
3 water should not be available to them to recapture?

4 MR. RENNING: The problem that we have here is not that
5 Southern California Water Company is placing the water in
6 Buffalo Creek, but that Aerojet is placing water in Buffalo
7 Creek and apparently abandoning it.

8 MR. SLATER: So does your answer change depending on
9 whether it's Aerojet who owns the ocean land in Monterey or
10 is it Southern California Water Company? Does that make a
11 difference to you?

12 MR. RENNING: I think it does.

13 MR. SLATER: So if Aerojet owns property over in
14 Monterey, puts the water in tankers, takes it to Rancho
15 Cordova and dumps it out and Southern California Water
16 Company wants to appropriate it, under that circumstance
17 prior vested rights should be satisfied?

18 MR. RENNING: Yes.

19 MR. SLATER: Would it matter to you if there was a
20 dispute concerning whose water that was in Monterey that was
21 captured?

22 MR. RENNING: I think we are getting into an area here
23 that we are perhaps moving too much into the hypothetical,
24 and I'm a bit uneasy with addressing those kinds of
25 questions.

1 MR. RENNING: Yes.

2 MS. DECKER: Do you have an opinion about whether the
3 river water is "overappropriated" in those months?

4 MR. SOMACH: Objection. "Overappropriated" is a
5 nondefined term.

6 MR. SLATER: Join.

7 MR. SOMACH: I have no idea what his --

8 MS. GOLDSMTIH: Is the basin basis overdrafted during
9 those months?

10 MS. SOMACH: Need further clarification.

11 MS. DECKER: Let me withdraw the question given what
12 he earlier stated relative to his expertise.

13 Do you have an opinion about whether there is
14 unappropriated water from November 1st through June 1st?

15 MR. SOMACH: Same objection.

16 MR. SLATER: Join.

17 H.O. SILVA: Sustained.

18 MS. DECKER: Could you please look at your plate number
19 one. If you would, put it on the overhead so everyone can
20 see.

21 This graph, if I understand correctly, shows the
22 natural, full natural, flow of the river throughout the
23 months of the year; is that correct?

24 MR. RENNING: Yes.

25 MS. DECKER: Can you tell me in January on that graph

1 is there more natural flow, inflow than outflow?

2 MR. RENNING: This graph shows the full natural flow of
3 the American River at Folsom Dam. And I believe this is for
4 median years. This would be a somewhat average year.

5 MS. DECKER: For that somewhat average year, for the
6 month of January inflows exceed outflows?

7 MR. RENNING: And for the release requirements that
8 would be imposed upon Reclamation are for the operation of
9 Folsom Dam that are presumed in this exhibit, they would be
10 approximately 1,400 cfs and they would be less than the
11 natural flow at that time of about 1600 cfs.

12 MS. DECKER: Let's switch to May. Is that the same
13 case for the month of May?

14 MR. RENNING: Yes. The natural flow is much greater
15 than that required releases during that month.

16 MS. DECKER: June.

17 MR. RENNING: June is a month in which there is a
18 transition that natural flows begin to drop off in that
19 month.

20 MS. DECKER: That continues through?

21 MR. RENNING: It continues through the summertime and
22 the lowest natural flows are in the month of September and
23 then begin rising again as a result of the fall and winter
24 rains.

25 MS. DECKER: The Fully Appropriated Stream Declaration

1 limits the water through October 31st. Can you look at
2 November, please, and tell me are the inflows greater than
3 the outflows for the month of November according to this
4 graph?

5 MR. RENNING: No, they are not. I would like to
6 correct what I just said. That month where the flows drop
7 off is July not June.

8 MS. DECKER: For December, based on this graph, are the
9 inflows greater than the outflows?

10 MR. RENNING: December is a month that the full natural
11 flows are approximately the same as the release requirement
12 that might be imposed upon Folsom.

13 MS. DECKER: In your opinion, would that mean there
14 would be some unappropriated water available in December?

15 MR. SOMACH: Objection.

16 MS. DECKER: Withdraw it.

17 H.O. SILVA: Thank you.

18 MS. OLSON: While we are on this chart, I see the
19 first crosshatched section that Delta salinity control per
20 D-893 and there is another one that's got closer
21 crosshatched which is for Delta salinity control per D-893.

22 What is the third kind of lighter shade of
23 cross-hatching? I don't see that it is specified. Perhaps
24 you can clarify all three of those a little more for me.

25 MR. RENNING: I'm sorry, but I really can't. I did not

1 develop this graph and actually when I was looking at it
2 some time ago I was wondering about that myself. I utilize
3 the graph to show the difference between the inflow to
4 Folsom Reservoir and the releases that would be required for
5 that. And there are certain aspects of what this graph is
6 used for in D-1400, but I'm simply not familiar with it
7 right at this moment.

8 MS. OLSON: D-893 had some fish flow requirement. Is
9 it possible that that is the fisheries requirement? Or do
10 you know if the fish flow requirements was above the
11 salinity control requirement in that decision?

12 MR. RENNING: D-893 occurred at a time that the
13 requirements for the Delta were thought to be much, much
14 less than what the requirements are now. And there has been
15 a dramatic change in the thinking about what is required for
16 the Delta between that time and this time. And in part that
17 was due to increased requirements for fisheries in the
18 Delta.

19 MS. OLSON: Thank you.

20 H.O. SILVA: Thank you.

21 City of Sacramento.

22 MS. LENNIHAN: No cross-examination.

23 Thank you.

24 H.O. SILVA: Thank you.

25 County of Sacramento.

1 CROSS-EXAMINATION OF BUREAU OF RECLAMATION
2 BY SACRAMENTO COUNTY/COUNTY WATER AGENCY
3 BY MR. SOMACH

4 MR. SOMACH: Your testimony refers to the groundwater
5 that has been the subject of Southern California Water
6 Company' testimony as abandoned.

7 What do you draw that conclusion from?

8 MR. RENNING: I have used the term "apparently
9 abandoned" because I have no other reason to characterize it
10 except as being abandoned. Aerojet is apparently pumping
11 the water into Buffalo Creek. They apparently have no
12 specific plans for that water and flows into the American
13 River and I think an appropriate designation for that water
14 would be it's being abandoned by Aerojet.

15 MR. SOMACH: Do you know the basis upon which that
16 water is being pumped and discharged?

17 MR. RENNING: It's -- I know I hear in a general sense
18 that it is being done as part of their effort to address the
19 groundwater pollution problem in their area.

20 MR. SOMACH: Do you know whether it is being done
21 pursuant to EPA or Regional Water Quality Control Board
22 order?

23 MR. RENNING: No, I do not know.

24 MR. SOMACH: In your written testimony you talk about
25 the preservation of existing right holders. When you say

1 "right holders," are you talking about the water right
2 holders?

3 MR. RENNING: Yes, I'm talking about right holders on
4 the American River.

5 MR. SOMACH: In that context you talk about including
6 the United States. So you include the United States as
7 among those right holders?

8 MR. RENNING: Yes.

9 MR. SOMACH: Do you include those with groundwater
10 rights in the groundwater basin from which the water is
11 being developed as right holders in the context of your
12 testimony?

13 MR. RENNING: My use of that term was only to cover
14 surface right holders.

15 MR. SOMACH: Did you intend to exclude those with
16 rights to groundwater or did you simply not consider it as
17 you moved -- prepared your testimony?

18 MR. TURNER: If I -- would you be able to clarify.
19 You're asking whether he was taking into account the impacts
20 of the groundwater pumping on other groundwater users?

21 MR. SOMACH: No. You talked about the fact -- take a
22 look at his testimony, Jim. His testimony talks in terms of
23 protecting existing right holders. And I asked whether or
24 not he included within that the existing groundwater right
25 holders. He said he had not, and my question was whether or

1 not that was a conscious decision to exclude them from the
2 universe of right holders whose rights count or whether he
3 had failed to consider that.

4 MR. RENNING: When I prepared this testimony, the way
5 that we looked at this is that because there has been an
6 application made for surface water, that in a sense we have
7 moved out of the realm of groundwater. And that if we are
8 going to consider this as surface water, then we have to
9 look at the protection of other right holders to surface
10 water.

11 MR. SOMACH: If we consider this as groundwater, would
12 we in turn need to consider the relative rights of others
13 who hold groundwater rights?

14 MS. GOLDSMITH: Objection. Unclear.

15 MR. SOMACH: Do you understand the question?

16 H.O. SILVA: Do you understand the question?

17 MR. RENNING: Well, to simply address in a very general
18 sense, certainly all right holders need to be considered.

19 MR. SOMACH: A large part of your testimony and
20 exhibits deal with what I'll call the assemblage of issues
21 associated with D-1594 which I believe is what established
22 Term 91; is that correct?

23 MR. RENNING: Yes.

24 MR. SOMACH: The Coordinated Operations Agreement which
25 coordinated the operation of the state and the federal

1 projects and dealt with the question of meeting water
2 quality standards in the Delta; is that correct?

3 MR. RENNING: Yes, that is right.

4 MR. SOMACH: When you refer to balanced conditions in
5 the Delta, you are relating to the obligation at certain
6 times of the projects to maintain water quality requirements
7 in the Delta under Term 91 and under the COA; is that
8 correct?

9 MR. RENNING: Yes, that is right.

10 MR. SOMACH: Do you -- is it the Bureau of
11 Reclamation's view that all water in the American River,
12 regardless of how it got there, is subject to Term 91?

13 MR. RENNING: I am not sure what you are asking. Would
14 you clarify that?

15 MR. SOMACH: I can state it again, but I don't think I
16 can clarify it because it was pretty clear.

17 Is all water -- in the Bureau of Reclamation's opinion
18 is all water in the American River, regardless of how it got
19 there, whether it got there through groundwater extraction,
20 whether it got there in Mr. Slater's hypothetical tanker
21 trucks, regardless of how it got there, is it subject to
22 Term 91?

23 MR. TURNER: Water itself is not --

24 H.O. SILVA: You are not the witness. You can advise
25 your witness, but I think the question is to the witness.

1 MR. SLATER: What is that?

2 MR. SOMACH: The record should reflect that Mr. Turner
3 had an interesting side discussion with his witness.

4 MR. RENNING: Let me say this, surface water is subject
5 to Term 91. And if we are talking about water rights that
6 are associated with surface water Term 91 applies to that.
7 To the extent that Term 91, in fact, does apply to those
8 particular rights, and it would apply to the most junior
9 rights on the system.

10 MR. SOMACH: In your opinion, in the Bureau of
11 Reclamation's view, I'm not certain -- I assume you're
12 speaking on behalf of the Bureau of Reclamation. So from
13 the Bureau of Reclamation's perspective is all water in the
14 American River, regardless of how it got there, available
15 for your appropriation?

16 MR. RENNING: According to the priority of our right,
17 yes.

18 MR. SOMACH: Is groundwater, when it is extracted and
19 utilized in the basin from groundwater wells by Southern
20 California Water Company, by California American Water
21 Company, by the County of Sacramento, is that subject to
22 Term 91?

23 MR. RENNING: No.

24 MR. SOMACH: Therefore, but for the fact that it is
25 being discharged into Buffalo Creek and thence the American

1 River, the extraction of groundwater from the groundwater
2 basin would not be subject to Term 91; is that correct?

3 MR. RENNING: I don't believe so.

4 MR. SOMACH: I have no further questions.

5 H.O. SILVA: Thank you.

6 Regional Board, do you have any questions?

7 MS. GEORGE: No questions.

8 H.O. SILVA: California American Water Company?

9 MS. DRISCOLL: No questions.

10 Thank you.

11 H.O. SILVA: Staff.

12 I don't believe I missed anyone for a cross.

13 MS. GOLDSMITH: Mr. Hearing Officer, you didn't miss
14 me, but in light of the other cross-examinations I do have
15 one or two questions, if I may.

16 H.O. SILVA: I will allow you.

17 ---oOo---

18 CROSS-EXAMINATION OF BUREAU OF RECLAMATION

19 BY AEROJET-GENERAL CORPORATION

20 BY MS. GOLDSMITH

21 MS. GOLDSMITH: I want to make sure that I understand
22 the position that you and Mr. Somach were discussing. If
23 Aerojet, for example, diverted water from the Tuolumne,
24 brought it up, discharged it properly into the American
25 River and had a contract for sale to some entity on the

1 American River, so it is clearly foreign water in the
2 American River that it had imported, do you believe that the
3 -- is it the United States' position that the purchaser of
4 the water would be precluded from rediverting the water
5 because of Term 91?

6 MR. RENNING: No, I don't think so. And I think the
7 reason for that is that your importation of the water in
8 your example from the Tuolumne River would cover its
9 ultimate use in the American River basin and there would be
10 appropriate terms and conditions imposed upon its use. And
11 that if Term 91 was in effect it would be in effect for its
12 diversion on the Tuolumne River, not for its use on the
13 American River.

14 MS. GOLDSMITH: So importation of foreign water and the
15 use of American River as a conduit would not trigger the
16 application of Term 91 prohibition from rediversion of that
17 water?

18 MR. RENNING: I do not think so.

19 MS. GOLDSMITH: Thank you.

20 H.O. SILVA: Do you have any redirect?

21 MR. TURNER: No, I have no redirect.

22 I would just like to offer USBR Exhibits 1 through 15
23 into evidence.

24 MR. SLATER: No objection.

25 H.O. SILVA: With that difference, that revised --

1 MR. TURNER: With the substitution, with the revised
2 Exhibit 9. Thank you, I had forgotten about that.

3 H.O. SILVA: Okay. They are accepted.

4 I think we've done as much damage as we can today. I
5 think, again if everybody agrees, we'll try to wrap this up
6 on the 13th. We'll call it a long night if we have to.
7 Rather than setting another date, why don't we target to
8 finish on the 13th.

9 MR. SLATER: Board Member Silva, if it would provide
10 assurance that we could get done, we'd be willing to start
11 earlier.

12 H.O. SILVA: I have a problem getting here that day,
13 so it has to be 9:00.

14 Let me look at my calender, I thought I had a problem
15 getting here, if not we can start at 8:00.

16 Actually, I take it back. Is everybody amenable to
17 starting at 8:00? Hopefully if we start early, we can
18 finish early.

19 MS. DECKER: I can get here. I am also thinking if you
20 consider the entities that left to testify, there should --

21 H.O. SILVA: Why don't you come to the mike.

22 MS. DECKER: Tell me I am wrong, but we have Aerojet,
23 Fish and Game, City, County.

24 H.O. SILVA: Regional Board.

25 MS. DECKER: Cross. Like, Jan and her folks, if they

1 do that, I add up the hours that it is going to take, and I
2 believe it's going to be a really, really long day.

3 H.O. SILVA: I don't know, just to get a sense.

4 MS. DECKER: Aerojet, how many witnesses do you
5 actually think you might be calling?

6 H.O. SILVA: Hold on. I was going to ask.

7 MS. DECKER: You ask, sorry.

8 H.O. SILVA: We went pretty fast today. I was
9 surprised with Southern California Water Company. I was
10 going to ask everybody else.

11 Fish and Game, are you going to have --

12 MS. DECKER: The more difficult testimony to deal with
13 is going to be Aerojet's and Fish and Game. I could be
14 wrong.

15 H.O. SILVA: Let's try it, let's try 8:00. You can't
16 make 8:00?

17 MS. DECKER: I can't make 8:00; 8:30.

18 H.O. SILVA: Okay, 8:30, this room apparently. So 8:30
19 here, 6/13. Let's try it. Pencil in the 14th in case we
20 can't.

21 MR. SLATER: That date is reserved.

22 H.O. SILVA: We'll just play it by ear.

23 (Hearing adjourned at 1:40 p.m.)

24 ----oOo----

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