

1 APPEARANCES

2 CALIFORNIA WATER RESOURCES BOARD

3 Division of Water Rights

4 Board Members Present:

5 Tam Doduc, Co-Hearing Officer
6 Felicia Marcus, Chair & Co-Hearing Officer

7 Staff Present:

8 Andrew Deeringer, Senior Staff Attorney
9 Conny Mitterhofer, Supervising Water Resource Control
10 Engineer
11 Jean McCue, Water Resources Control Engineer
12 Hwaseong Jin

10

11 PART 2

12 For Petitioners:

13 California Department of Water Resources:

14 James (Tripp) Mizell
15 Jolie-Anne Ansley

15

16 INTERESTED PARTIES:

17 For County of San Joaquin, San Joaquin County Flood
18 Control and Water Conservation District, and Mokelumne
19 River Water and Power Authority:

19 Thomas H. Keeling

20 For California Sportfishing Protection Alliance (CSPA),
21 California Water Impact Network (C-WIN), and
22 AquAlliance:

22 Michael Jackson

23

24

25

1 APPEARANCES (Continued)

2 INTERESTED PARTIES (Continued):

3 For The Environmental Justice Coalition for Water,
4 Islands, Inc., Islands, Inc., Local Agencies of the
5 North Delta, Bogle Vineyards/Delta Watershed Landowner
6 Coalition, Diablo Vineyards and Brad Lange/Delta
7 Watershed Landowner Coalition, Stillwater
8 Orchards/Delta Watershed Landowner Coalition, Brett G.
9 Baker and Daniel Wilson, SAVE OUR SANDHILL CRANES,
10 Friends of Stone Lakes National Wildlife Refuge, The
11 County of Yolo:

12 Osha Meserve

13 For Clifton Court, L.P.:

14 Suzanne Womack

15 For Restore the Delta:

16 Nina Robertson
17 Michelle Ghafar

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I N D E X

CALIFORNIA SPORTFISHING ALLIANCE, CALIFORNIA WATER
IMPACT NETWORK AND AQUALLINCE

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1 Wednesday, March 28, 2018 9:30 a.m.

2 PROCEEDINGS

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4 CO-HEARING OFFICER DODUC: Good morning,
5 everyone.

6 Welcome back to this Water Right Change
7 Petition hearing for the California WaterFix Project.

8 I am Tam Doduc. To my right is Board Chair
9 and Co-Hearing Officer Felicia Marcus. To my left are
10 Andrew Deeringer and Jean McCue.

11 Miss Gaylon is assisting us today as well.

12 Usual three announcements:

13 Take a moment and identify the exits closest
14 to you. But in the event of an emergency and the alarm
15 going off, we will exit that door (indicating) to
16 access the stairs. Go down to the first floor, and
17 meet up in the park across the street.

18 Secondly, please speak into the microphone
19 when providing your statements today in order for the
20 recording and Webcast to allow people to hear you.
21 Please begin by stating your name and your affiliation
22 for the record.

23 And our court reporter is back with us.
24 Please make arrangements with her directly if you would
25 like a copy of the transcript earlier than the

1 conclusion of Part 2.

2 And, finally and most importantly, because I
3 heard several cellphones going off before we started
4 today, please take a moment and put all your
5 noise-making devices to silent, vibrate, do not
6 disturb.

7 Housekeeping before we turn to Mr. Jackson
8 today. Just do a quick time estimate.

9 I have -- We -- The remaining two witnesses
10 for Mr. Jackson's Panel 2 with direct of approximately
11 30 minutes. And then cross-examination by DWR, 15 to
12 20. Mr. Emrick, maybe, if he shows up for 20 minutes,
13 Mr. Herrick for 10 to 15. And Miss Des Jardins for 10
14 to 15.

15 Are there any changes to that, either addition
16 or deletion?

17 MR. KEELING: Addition. Tom Keeling,
18 San Joaquin County Protestants.

19 I don't believe I'll have any more than 15
20 minutes.

21 CO-HEARING OFFICER DODUC: Okay.

22 MR. MIZELL: Tripp Mizell, DWR.

23 Hopefully, I can start your morning off with
24 good news. DWR's determined that it doesn't need to
25 cross-examine these witnesses today.

1 CO-HEARING OFFICER DODUC: All right. Okay.
2 So, then -- Don't go away yet, Mr. Mizell, because I'm
3 now going to ask for estimates for Panel 3.

4 Mr. Jackson, I believe there's a change to
5 Panel 3?

6 MR. JACKSON: Yes.

7 The AquAlliance is withdrawing the testimony
8 of Trina Cunningham. There's an illness. She just
9 can't make it, so . . .

10 CO-HEARING OFFICER DODUC: All right. So that
11 means your direct will now be one hour.

12 DWR, what is your estimate on cross?

13 MS. ANSLEY: I think my new estimate on cross
14 now is 30 minutes.

15 CO-HEARING OFFICER DODUC: Any other cross for
16 Panel 3?

17 MR. KEELING: Tom Keeling for the San Joaquin
18 County Protestants.

19 Again, no more than 15 minutes.

20 CO-HEARING OFFICER DODUC: What I will then
21 propose is:

22 We should be able to complete Panel 2 by about
23 11 o'clock.

24 Why don't we try to complete Panel 3 before we
25 take our lunch break because, right now, I believe

1 Panel 3 has an hour of direct and not more than 45
2 minutes of cross.

3 That way, your witnesses won't have to return
4 after lunch, which means that, after we take our lunch
5 break, which will be roughly around 12:30 to 1:00, we
6 will reconvene with Restore the Delta. So I just want
7 to give them a heads-up.

8 All right. Gentlemen, if you could please
9 stand and raise your right hand.

10 Oh, Miss Meserve.

11 MS. MESERVE: I'm sorry. Just making sure you
12 were done with that part of it.

13 Osha Meserve. I'm here this morning on a
14 scheduling issue for EJCW, which is order of direct
15 testimony Number 15.

16 CO-HEARING OFFICER DODUC: Um-hmm.

17 MS. MESERVE: So they would be coming up after
18 Friends of the River, which I believe Friends of the
19 River would start tomorrow.

20 CO-HEARING OFFICER DODUC: Um-hmm.

21 MS. MESERVE: Mr. Bailey's been trying to
22 contact his witnesses, and he's able to present on
23 tomorrow his first panel, but his second panel key
24 witnesses are not available until Monday.

25 I did confer with counsel for DWR regarding

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1 any flexibility in being able to move other panels into
2 Thursday.

3 Ms. Womack has agreed that she would be
4 willing to go on Thursday but that wasn't until I had
5 notice DWR to prepare for cross.

6 CO-HEARING OFFICER DODUC: Before we cross
7 that bridge, though, perhaps I might get an estimate
8 from DWR on cross on Restore the Delta.

9 MS. ANSLEY: At this moment, it looks like our
10 cross for Restore the Delta is a little bit lengthier
11 than usual. I think it's an hour and a half, up to --
12 almost up to two hours.

13 But we do endeavor as it comes through to
14 refine our questions, and so we will, of course, keep
15 doing that up until they testify.

16 CO-HEARING OFFICER DODUC: All right.

17 MS. ANSLEY: That would be our current
18 estimate.

19 CO-HEARING OFFICER DODUC: And then your cross
20 for Friends of the River and Sierra Club?

21 MS. ANSLEY: I think with that panel, it's
22 difficult to tell how witnesses will answer, so I'm
23 going to conservatively say 40 minutes, although I
24 think that's a conservative estimate.

25 CO-HEARING OFFICER DODUC: All right. And

1 what about cross for the first panel for EJCW?

2 MS. ANSLEY: I think that -- that that cross
3 would be very limited. I can't see more than 20
4 minutes. And it's likely much shorter, but I have not
5 looked at that in the last day.

6 CO-HEARING OFFICER DODUC: All right. Let's
7 do this, then, Miss Meserve:

8 We -- We will have a hard stop at 5:00 today
9 and we will be stopping at 4:00 tomorrow. So, at the
10 most -- and we should know better by the end of the
11 day -- we will get to EJCW's second panel, but we will
12 wait until Monday for the third panel.

13 MS. MESERVE: Thank you very much.

14 Yes. They only have two panels.

15 CO-HEARING OFFICER DODUC: That's right.

16 MS. MESERVE: Oh, sorry.

17 Okay. So, yeah, he'll provide his Policy
18 Statement and present his first panel, and then you
19 would be okay without us doing any other switching to
20 just begin Panel 2 for EJCW on Monday.

21 CO-HEARING OFFICER DODUC: Yes.

22 MS. MESERVE: Thank you.

23 CO-HEARING OFFICER DODUC: Okay. all right.
24 I think that is the most efficient way to proceed.

25 MS. ANSLEY: Thank you.

1 CO-HEARING OFFICER DODUC: Now, please rise
2 and raise your right hand before someone stops you.

3 Dan Bacher

4 and

5 Dave Fries,

6 called as witnesses by the California
7 Sportfishing Protection Alliance, California
8 Water Impact Network, and AquAlliance, having
9 been duly sworn, were examined and testified
10 as follows:

11 CO-HEARING OFFICER DODUC: Thank you very
12 much.

13 Mr. Jackson.

14 MR. JACKSON: Thank you.

15 DIRECT EXAMINATION BY

16 MR. JACKSON: Mr. Bacher, is CSPA-214 a true
17 and correct copy of your testimony in this hearing?

18 WITNESS BACHER: Yes, it is.

19 MR. JACKSON: Is your microphone on?

20 WITNESS BACHER: Yes, it is.

21 MR. JACKSON: Dr. Fries, is CSPA-218 a true
22 and direct -- correct copy of your testimony?

23 WITNESS FRIES: Yes, it is.

24 MR. JACKSON: Is CSPA-219 a true and correct
25 copy of your Statement of Qualifications?

1 WITNESS FRIES: Yes, it is.

2 MR. JACKSON: Mr. Bacher, would you summarize
3 your testimony, please.

4 WITNESS BACHER: My name is Dan Bacher.

5 I'm a long-time editor at Northern California
6 Angler Publications, the publishers of the Fish Sniffer
7 magazine, a biweekly fishing magazine that covers
8 freshwater and salt water fishing in Northern
9 California, Southern Oregon, and freshwater fishing in
10 Nevada.

11 I have written many thousands of reports and
12 features of fisheries, water, regulatory capture,
13 environmental justice for an array of publications,
14 including the Stockton Record, East Bay Express, Appeal
15 Democrat, Sacramento News & Review, Sacramento Bee,
16 Native California News, Elk Grove News, yuba.net,
17 Counterpunch and others.

18 I also serve on the advisory board of the Save
19 the American River Association and I'm a Board Member
20 of water4fish.org. I was inducted into the California
21 Outdoors Hall of Fame in 2015.

22 Based on the research and many articles I've
23 written since 1983, my conclusion is the State Water
24 Board should not approve the Joint Petition filed by
25 the California Department of Water Resources and the

1 Bureau of Reclamation to add three new points of
2 diversion and/or points of rediversion of water to
3 specified Water Right Permits for the State Water
4 Project and the Central Valley Project associated with
5 the California WaterFix.

6 The Project would present a tremendous danger
7 to the fisheries that I write and edit articles about
8 and to the recreational fish -- fishing industry that I
9 work for.

10 When I first began full-time as an editor for
11 the publication in 1985 and as a columnist and report
12 writer two years prior to that, the fishing scene was
13 much different than it is now.

14 There were a plethora of bait and tackle
15 stores in the Sacramento area, including Wild Sports in
16 Orangevale, Fran and Eddy's Sports Den in Ranch Cordova
17 and Roseville, Ben's Bait and Tackle in West
18 Sacramento, River City Bait and Tackle, Fruitridge Bait
19 and Tackle, Sacramento Pro Tackle, and Broadway Bait
20 and Tackle, Saving Center, Elkhorn Bait and Tackle in
21 Elverta, and three shops in Freeport, a total of 13
22 stores.

23 Now, after years of fishery declines, the only
24 local bait and tackle stores left are Sacramento Pro
25 Tackle, Broadway Bait, Fisherman's Warehouse, and

1 Elkhorn Outdoors and three bait shops in Freeport, a
2 total of seven stores.

3 The closure of the Salmon season in 2008, 2009
4 and 2010, spurred by record water exports, combined
5 with poor ocean conditions and other factors, caused
6 immense harm to the local fishing industry.

7 One of the biggest fishery incomes of the
8 year, the Salmon Fishery on the Sacramento, American
9 and Feather Rivers, was lost when the season was closed
10 for two years and restricted for another year.

11 This decline in income to bait and tackle
12 stores and fishing coincided with a drop in license
13 sales.

14 This year, Salmon fishing season has been
15 postponed from opening on April 1st due to low numbers
16 of Sacramento and Klamath Salmon.

17 This is the ocean Salmon season opener or what
18 was formerly the opener above Pigeon Point.

19 There were . . . We had scores of fishing
20 guides and charter boats that used to advertise in our
21 publication before the collapse of Salmon, Steelhead,
22 Striped Bass, Shad and other fisheries.

23 Now there are only five fishing guides, and
24 its -- on the Sacramento and its tributaries, and eight
25 charter boats currently advertising.

1 By contrast, there were 15 fishing guides on
2 the Sacramento River and its tributaries and 26 charter
3 boat operations located from Bodega Bay to Monterey Bay
4 advertising in the publication back in September of
5 1988.

6 Now community fishermen leave the state to
7 fish, taking their dollars to other areas, like Alaska
8 or British Columbia.

9 There were also at one time five fishing
10 publications in our region: The Northern California
11 Fish Finder, Rabid Angler News, Fishing and Hunting
12 News, and Western Outdoors News and our publication.
13 Now only the Fish Sniffer and Western Outdoor News are
14 left.

15 In addition, our staff at the Fish Sniffer,
16 due to fishery declines, has dropped from 10 full-time
17 positions in the late 1980s to only four full-time
18 positions now.

19 Since 1980, the number of annual fishing
20 licenses sold in California declined over 55 percent.
21 In fact, the number of fishing licenses plummeted to
22 another -- another 40,000 in 2014 alone, according to
23 the California Sportfishing League.

24 California ranks dead last in statewide
25 participation. And in Northern California, much of

1 this is the result of a decline in Striped Bass,
2 Chinook Salmon, Steelhead, Shad and White Sturgeon
3 fisheries spurred by increased water exports out of the
4 Delta.

5 While California's 2.8 million anglers rank as
6 one of the top markets for outdoor consumer products in
7 the country, there has been an unprecedented decline in
8 California's fishing participation rate.

9 While there are many factors, including the
10 high price of fishing licenses now, the removal of vast
11 quantities of water from the Delta and the State and
12 Federal pumps is acknowledged by State, Federal and
13 independent scientists as a key factor in this decline.

14 When I first began with the Fish Sniffer,
15 anglers were still able to fish for winter-run Chinook
16 Salmon on the Sacramento River, and spring-run Chinook
17 Salmon on the Feather River and Butte Creak.

18 However, the decline of winter-run Chinook and
19 spring-run Chinook Salmon runs has led to a collapse in
20 both these populations. The winter-run Chinook
21 declined from 117,000 fish in 1969 and an average of
22 87,000 spawning adults in the 1960s to fewer than 200
23 in the 1990s, according to NOAA Fisheries.

24 On March 6, 1989, the California Fish & Game
25 Commission denied endangered species to the winter-run

1 Chinook Salmon that for many thousands of years spawned
2 in the McCloud River that drains the Mount Shasta
3 Glacier. Hal Bonslett, the late founder and publisher
4 of the Fish Sniffer, and I were there at the meeting in
5 Sacramento on a crusade to stop the extinction of the
6 fish.

7 The Tehama Fly Fishers and John Merz, then the
8 Executive Director of the Sacramento River Preservation
9 Trust, Bonslett and I argued before the Commission to
10 put the fish on the State Endangered Species List to
11 prevent it from going extinct, but to no avail at
12 first.

13 However, we kept going to the Commission
14 meetings and working on the Federal level for the
15 listing on the winter-run Chinook as endangered. Hal
16 and I wrote editorial after editorial on a -- calling
17 for the designation.

18 We finally succeeded on the state level in
19 1989 when the fish was listed as endangered. The
20 National Marine Fisheries Service also listed the
21 winter-run as endangered -- as threatened, five years
22 after the agency received the Petition calling for the
23 listing. In 1990, finally, after receiving another
24 Petition, NMFS listed the fish as endangered.

25 The winter-run Chinook's dramatic decline is

1 due to dramatic increases in water exports to corporate
2 agribusiness interests through the State Water Project
3 and Central Valley Water Project pumps in the South
4 Delta, as well as the construction of Shasta and
5 Keswick Dams.

6 The years from 2003 to 2011 featured record
7 water exports out of the Delta. The state and Federal
8 governments authorized the all-time record for water
9 exports out of the Delta in 2011: 6,520,000 acre-feet
10 of water. That's 217,000 acre-feet more than the
11 previous record of 6,303,000 acre-feet set in 2005.

12 In the years since this initial listing that
13 we worked so hard to get, numbers of the winter-run
14 have bounced up and down with a number of measures
15 taken, including the screening of unscreened diversions
16 on the Sacramento, the removal of the Red Bluff
17 Diversion Dam, and some restrictions on Delta pumping
18 resulting from Federal Biological Opinions.

19 I believe that excessive exports of water
20 since the State Water Project came online in 1968 and
21 poor management of upstream reservoirs have led to a
22 steady decline of pelagic and anadromous fish species
23 in recent years.

24 This has seriously impacted the health of
25 recreational fish -- and commercial fisheries to the

1 point where numerous species are bordering on
2 extinction. Clearly public trust fishery and
3 recreational fishery issues haven't been protected, and
4 this degree of public degradation cannot be in the
5 public interest.

6 Now, in 2017, nearly 28 years after the
7 initial listing, and the winter-run Chinook Salmon is
8 still in deep trouble. Only 1,123 adult Chinook Salmon
9 returned to the Sacramento Valley in 2017, according to
10 a report sent to the Pacific Fishery Management Council
11 by the California Department of Fish and wildlife.

12 This is the second lowest number of returning
13 adult winter-run Chinook Salmon since modern counting
14 techniques were implemented in 2003, undercut only by
15 the 824 returned in 2011.

16 I am supporting the Winnemem Wintu Tribe in
17 their effort to reintroduce the original run of McCloud
18 winter-run Chinook Salmon now thriving on the Rakaira
19 River in New Zealand, where they were introduced over a
20 hundred years ago, back to their ancestral home on the
21 McCloud.

22 Like the winter-run Chinook, the Delta Smelt
23 and Longfin Smelt has declined to record low levels in
24 recent years. These three indicator species are part
25 of an overall ecosystem decline, including dramatic

1 reductions in spring- and fall-run Chinook Salmon and
2 Steelhead populations, driven by water diversions by
3 the State and Federal Projects.

4 All of the species that need healthy river
5 flows to survive have declined since I started working
6 for the Fish Sniffer.

7 From 1967 through 2015, populations of Striped
8 Bass, Delta Smelt, Longfin Smelt, American Shad,
9 Splittail, Threadfin Shad, Spring Chinook, Winter
10 Chinook, Fall Chinook, Late Fall Chinook and Central
11 Valley Steelhead have declined by orders of magnitude,
12 according to data compiled by the Department of Fish
13 and Wildlife and the Anadromous Fisheries Restoration
14 Program. This Program has failed to double populations
15 of naturally anadromous fish species from the average
16 of their 1967 to 1961 levels, as required by the
17 Central Valley Improvement Act of 1992.

18 I have written hundreds of articles about the
19 Delta Tunnels and have testified before the Delta
20 Stewardship Council and other State panels many times
21 about the many problems with the California WaterFix.

22 However, in the many hours I've spent covering
23 the California WaterFix and its predecessors, there's
24 one terminal flaw with the Project that stands out
25 among all others: The false assumption that the

1 Project is based upon.

2 The WaterFix is based on the absurd contention
3 that taking up to 9,000 cubic feet per second of water
4 from the Sacramento River at the new points of
5 diversion will restore the ecosystem.

6 I am not aware of a single project in U.S. or
7 world history where the construction of a project that
8 takes more water out of a river or estuary has resulted
9 in the restoration of that river or estuary.

10 Based on this untenable premise and all the
11 flaws that thousands of Californians have uncovered
12 about this Project, I am urging the Board to reject the
13 Petition by the California Department of Water
14 Resources and U.S. Bureau of Reclamation now before
15 them today.

16 Thank you.

17 MR. JACKSON: Thank you, Mr. Bacher.

18 Dr. Fries, would you summarize your testimony,
19 please.

20 WITNESS FRIES: Yes. Thank you.

21 Good morning Board Members, and thank you for
22 this opportunity to present my testimony.

23 My name is David Fries. I'm Emeritus
24 Professor of Medicinal Chemistry at the University of
25 Pacific, and I've been a Visiting Professor -- Research

1 Professor in a number of other universities in the
2 United States, in Europe and in Africa.

3 My research experiences and publications
4 include the scientific disciplines of toxicology and
5 pharmacology, as well as drought design and chemical
6 synthesis.

7 I testify that all of my boating activity in
8 the Delta will be affected adversely by the WaterFix
9 Project.

10 I speak for myself as well as members of the
11 Stockton Sailing Club and CS -- CSPA.

12 My family and I have been sailing boats on the
13 Delta since the late 1970s. I have owned four boats
14 and sailed each of them extensively in the San Joaquin
15 Delta.

16 I have participated in sailboat regattas and
17 have anchored my boats at numerous sites in the
18 construction -- construction zones of the WaterFix --
19 proposed WaterFix Project.

20 I've taken and continue to take groups of
21 individuals for sailing excursions in the Delta.

22 I have been active in conservation efforts in
23 the Delta, having served on the Committee to Save the
24 Mokelumne, on the Board of the Bay/Deltakeeper, as
25 Science Advisor to CSPA, and presently as Conservation

1 Chair for the San Joaquin Audubon Society.

2 I have come to know and love the Delta for its
3 beauty and unique recreational opportunities and its
4 other benefits will -- beneficial uses.

5 I sale in the Delta. I fish in the Delta. I
6 bird watch in the Delta. I kayak in the Delta. And
7 sometimes I just sit on the deck of my boat and soak up
8 the glories of the Delta.

9 However, in my experiences, I have witnessed
10 the sad and continual degradation of water quality and
11 wildlife habitat in the Delta.

12 WaterFix will decrease the flows of fresh
13 water through the Delta. WaterFix does not consider
14 established flow rates for a sustainable Delta. The
15 flow requirements necessary to maintain beneficial
16 public trust recommended by the expert panel pursuant
17 to the Board's charge have been ignored by the WaterFix
18 Petition. Here, I'm referring to the document
19 development of flow criteria for the
20 Sacramento-San Joaquin Delta ecosystem in August 2010.

21 In my opinion, sustainable flow rates for a
22 healthy Delta have not been implemented and will not be
23 implemented by the WaterFix Project.

24 In November 2010, the California Department of
25 Fish & Game published the study "Quantifiable

1 Biological Objectives and Flow Criteria for Aquatic and
2 Terrestrial Species of Concern Dependent on the Delta."
3 Recommendations made in this study have not been met in
4 the WaterFix EIR.

5 WaterFix has not used the best-available
6 science in the design of the Project. This is
7 blatantly demonstrated in the failure of the Project to
8 consider climate change and sea-level rise beyond the
9 year 2030.

10 Reviews by outside and independent scientific
11 review boards repeatedly recommended that analysis of
12 effects of sea-level rise be made well beyond the 2030
13 date.

14 I'm concerned that decreased flows -- and here
15 I mean water flows from the Sacramento River to the
16 Central Delta -- that these flows cause -- that the
17 decreased flows caused by WaterFix will result in
18 decreased flushing time in the Delta.

19 Decreased flow in the Central Delta results in
20 increased residence time and increased salt water
21 intrusion into the Delta.

22 In science, we have a saying that the solution
23 is in the dilu -- in the dilution. It's a simple
24 statement that states that detrimental effects of toxic
25 chemical accumulation can be solved, at least to some

1 extent, by diluting the toxic water -- toxic waters
2 with non-toxic flows by dilution.

3 As a chemist, it is clear to me that the
4 decreased flow and increased residence time of waters
5 contaminated with toxic materials will result in
6 increased toxic exposure in terms of both
7 concentrations and in exposure time to the flora and
8 fauna of the Delta.

9 Waters will stagnate, and basic aquatic plants
10 will not be flushed out. Aquatic and terrestrial life
11 forms will be harmed. Toxic algal blooms will
12 increase. Swimming and on-water activities will become
13 dangerously unhealthy. And agriculture in the Delta
14 will be impaired.

15 I'm highly concerned about the impacts of the
16 WaterFix Construction Project. The main construction
17 staging area is proposed to be at the south end of
18 Bouldin Island. This area is the favored anchorage for
19 recreational boaters in the Delta.

20 The large docks proposed to be built will
21 block the waterway. The increased barge traffic would
22 make boating dangerous. Dust and noise would be
23 continual and disturb human and wildlife activities in
24 the area.

25 The esthetic quality of the Delta would be

1 disrupted throughout the Construction Project and
2 possibly beyond.

3 WaterFix construction activities would render
4 the recreational benefits of the area useless.

5 Other anchorages and other use areas, high-use
6 areas, such as the Five Fingers Anchorage and Mildred
7 Island would be similarly affected by the WaterFix
8 Project.

9 The barge and boat traffic associated --
10 associated with WaterFix construction would greatly
11 increase dangers to boating safety. Sailboat races on
12 the estuary would become dangerous, if not impossible.

13 The same is true for the youth Learn to Sailing
14 Program provided by the Stockton Sailing Club where 50
15 to 100 young individuals are out on single boats trying
16 to maneuver between barges and so forth.

17 The same -- Oh, I'm sorry.

18 Boat groundings would surely increase due to
19 avoidance -- avoidance of ship collisions in the narrow
20 channels where the barges would travel.

21 The wakes generated by the excess -- excess --
22 extensive increase in barge and tugboat activity would
23 erode levees and in -- instream islands. Habitat would
24 be destroyed. Chances for levee breaks would be
25 increased.

1 The WaterFix Project will decrease the beauty
2 of the Delta. The fish and the birds and the other
3 wildlife species that are struggling to exist in the
4 Delta would be harmed to an extent of extinction in
5 some cases.

6 Large areas of wetlands would be filled with
7 muck from the tunnel-boring machines and the shaft
8 constructions.

9 Habitat destroyed will take decades to
10 restore, and there's a probability that it would never
11 be replaceable in some cases, some of the habitat.

12 The Delta's protected by the California Public
13 Trust Doctrine. The doctrine states the State of
14 California has the duty to manage all public trust
15 resources for the benefit of all the people of the
16 state. The benefit cannot be taken from one individual
17 for the benefit of other individuals.

18 The doctrine protects modern recreational
19 enjoyment and other beneficial uses of the Delta, as
20 well as all the aquatic resources and the birds and the
21 wildlife that live there.

22 The doctrine states that any individual who
23 has his or her public trust rights violated has the
24 right to file a lawsuit against the state.

25 WaterFix claims that impacts on recreation and

1 other beneficial uses of the Delta would only be
2 temporary.

3 The Construction Project itself will take 13
4 years and probably it will take longer.

5 I and many of us here will probably not live
6 to see the end of that Project. And I believe the
7 Board has both the legal and the moral responsibility
8 to protect our rights for as long as we live.

9 Thank you.

10 MR. JACKSON: That concludes our direct case
11 for Panel 2.

12 CO-HEARING OFFICER DODUC: Thank you.

13 I do not see Mr. Herrick here.

14 Going once, going twice, gone.

15 I do not see -- Oh, Mr. Keeling is here.

16 You're up, Mr. Keeling.

17 MR. KEELING: I've been sitting here looking
18 through my questions, listening to the testimony, and
19 decided I can't add much to this, so I'm going to
20 relinquish my 15 minutes to any other worthy soul.

21 CO-HEARING OFFICER DODUC: That's quite a
22 testament to these two witnesses.

23 Mr. Emrick is not here.

24 Going once, going twice, gone.

25 Miss Des Jardins is not here, either.

1 Once, twice, gone.

2 I think that does it for you. Thank you so
3 much for joining us today.

4 MR. JACKSON: May I have a minute to organize
5 the next panel?

6 CO-HEARING OFFICER DODUC: Let's take a short
7 five-minute break. We will return at 10:08.

8 (Recess taken at 10:03 a.m.)

9 (Proceedings resumed at 10:08 a.m.):

10 CO-HEARING OFFICER DODUC: All right. Please
11 take a seat.

12 Actually, no, don't take a seat.

13 Please find your position and stand for the
14 oath taking.

15 MR. JACKSON: I apologize for being a minute
16 or two late.

17 There's several housekeeping --

18 CO-HEARING OFFICER DODUC: Actually, it's
19 still 10:08 so you're not late.

20 MR. JACKSON: All right.

21 Jim, I believe you're --

22 CO-HEARING OFFICER DODUC: Actually, it's
23 fine.

24 Miss Gaylon, would you mind moving or could
25 you just hand the slide plate down to Mr. Brobeck.

1 MR. JACKSON: Well, I -- I actually --

2 CO-HEARING OFFICER DODUC: You have them
3 there?

4 MR. JACKSON: -- have them in the order I'd
5 like to do this.

6 CO-HEARING OFFICER DODUC: I tried to help you
7 out, Mr. Brobeck. Sorry.

8 WITNESS BROBECK: Thank you.

9 CO-HEARING OFFICER DODUC: Actually, please do
10 not sit. Instead, stand and raise your right hands.

11 Don Hankins,

12 James Brobeck,

13 Kit Custis

14 and

15 Barbara Vlamis,

16 called as witnesses by the California
17 Sportfishing Protection Alliance, California
18 Water Impact Network, and AquAlliance, having
19 been duly sworn, were examined and testified
20 as follows:

21 CO-HEARING OFFICER DODUC: Thank you very
22 much.

23 DIRECT EXAMINATION BY

24 MR. JACKSON: Ms. Vlamis, is AquAlliance-226 a
25 true and correct copy of your qualifications for this

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1 hearing?

2 WITNESS VLAMIS: Yes.

3 MR. JACKSON: Is . . . Is document --
4 AquAlliance-227 a true and correct copy of your written
5 testimony for this hearing?

6 WITNESS VLAMIS: Yes.

7 MR. JACKSON: Is AquAlliance-267 the
8 PowerPoint that you're going to use to help summarize
9 your testimony?

10 WITNESS VLAMIS: Yes.

11 MR. JACKSON: Mr. Brobeck, is AquAlliance-275
12 a true and correct copy of your qualifications?

13 WITNESS BROBECK: Yes.

14 MR. JACKSON: Is AquAlliance-276 a true and
15 correct copy of your testimony for this hearing?

16 WITNESS BROBECK: Yes, it is.

17 MR. JACKSON: Mr. Custis, is AquAlliance-200 a
18 true and correct copy of your qualifications for this
19 hearing?

20 WITNESS CUSTIS: Yes.

21 MR. JACKSON: Is AquAlliance-201 a true and
22 correct copy of your testimony for the -- for this
23 hearing, your written testimony?

24 WITNESS CUSTIS: I believe it's 202 is the
25 written testimony and 201 is the PowerPoint.

1 MR. JACKSON: All right.

2 CO-HEARING OFFICER DODUC: (Nodding head.)

3 MR. JACKSON: Dr. Hankins, is AquAlliance-268
4 a true and correct copy of the qualifications for this
5 testimony?

6 WITNESS HANKINS: Yes, it is.

7 MR. JACKSON: Is AquAlliance-272 a true and
8 correct copy of your written testimony for this
9 hearing?

10 WITNESS HANKINS: Yes, it is.

11 MR. JACKSON: You have two PowerPoints that
12 were submitted.

13 Are you going to use them both?

14 WITNESS HANKINS: I will use one, 274.

15 MR. JACKSON: Is AquAlliance-274 a true and
16 correct copy of the PowerPoint that you're going to use
17 the summarize your testimony?

18 WITNESS HANKINS: Yes. That -- That will be
19 the one that I'll ask for to show as vehicles in this.

20 MR. JACKSON: Thank you.

21 WITNESS HANKINS: The other one is just --
22 just individual -- sorry -- individual images of the
23 slides themselves.

24 MR. JACKSON: All right. Thank you very much,
25 sir.

1 CO-HEARING OFFICER DODUC: Hold on,
2 Mr. Jackson, please.

3 Miss Ansley.

4 MS. ANSLEY: Yes.

5 At this time, I'd like to bring a Motion to
6 Strike. And I have some rationales for why I'd like to
7 bring it now as opposed to when I sit down to do my
8 cross.

9 CO-HEARING OFFICER DODUC: All right.

10 MS. ANSLEY: My Motion to Strike goes to the
11 testimony of Miss Vlamis, which is AQUA-227.

12 I have very carefully reviewed Miss Vlamis'
13 testimony. I have compared it to her testimony in
14 Part 1, which is AQUA-1-Revised-2. It was subject to
15 errata twice per the rulings of the Board.

16 And the basis for my motion is this:

17 The testimony submitted here in Part 2 is
18 nearly identical to the testimony submitted in Part 1.
19 It involves the exact same topics and literally
20 paragraph after paragraph of the same testimony.

21 Now, I have identified a number of places
22 where there has been additional information added
23 or -- for example, updated well information or -- and I
24 have made a list of, you know, which paragraphs are
25 new.

1 This is extremely limited. This is the same
2 testimony presented again with a little bit extra
3 factual basis.

4 And, moreover, this testimony, since it's a
5 duplicate of the Part 1 testimony which had sentences
6 struck from it, includes the sentences that were struck
7 in Part 1.

8 So I now have two problems.

9 So my first problem is that this testimony now
10 seeks to admit into evidence testimony that was struck
11 in Part 1. And that can be seen by looking at the
12 strikeouts on AQUA-1-Revised-2.

13 And then, second, my -- I am also objecting
14 that this is duplicative and repetitive in that it's
15 submitting exactly the same testimony for the most
16 part.

17 Again -- And if you need more information on
18 which parts are the exact same testimony again and,
19 actually, more easily which parts are new, I'm happy to
20 provide that.

21 But I'd like to have some ruling on that
22 before this gets read into the record possibly and
23 before we take the time to cross-examine on the same
24 testimony that was presented in Part 1 for the same
25 issues.

1 CO-HEARING OFFICER DODUC: Mr. Jackson, your
2 response.

3 MR. JACKSON: Yes.

4 I'd like to start with the point that most of
5 the evidence with this witness, as well as others, in
6 Part 1 was limited to legal users of water.

7 CO-HEARING OFFICER DODUC: (Nodding head.)

8 MR. JACKSON: This testimony, while it is much
9 the same in terms of the activities of the WaterFix
10 that we'll have, it's on different issues.

11 It's on unreasonable effects on fish and
12 wildlife, on public interest and on public trust, much
13 of which was moved, at the decision of the Board, to
14 Part 2.

15 So I beg to differ, and I don't see it as a
16 problem.

17 If we had done this hearing all in one piece,
18 the testimony would only have been needed once. But
19 because it implicates both humans and the environment,
20 it was divided into two -- two pieces.

21 But this -- They're not a new set of facts of
22 the Project. It's the same dams upstream, the same
23 location for the diversions, and it's necessary to do
24 that for the other three issues in this hearing.

25 MS. ANSLEY: And I'd like to add, too, that --

1 And I'm happy to go through, like, how extensive the
2 duplication is because it's page after page of the
3 exact the same stuff.

4 But I would like to say that the exhibits that
5 were admitted in Part 1 and referenced in her Part~1
6 testimony are again, of course, because it's
7 duplicative testimony referenced here, except that the
8 exhibit numbers have changed, and so the same exhibits
9 are being resubmitted with new numbers now too.

10 So not only is it duplicative testimony on the
11 exact same topics that they've now taken the
12 opportunity to supplement with additional technical
13 information on the same issues, but they're also
14 resubmitting the same exhibits with new numbers.

15 And, also include, I've noted, two places
16 where a Motion to Strike should be brought on the same
17 grounds that this testimony was originally stricken in
18 the beginning.

19 So it's a little bit of a mess because it --

20 CO-HEARING OFFICER DODUC: So stop.

21 I'd ask you: You keep mentioning that portion
22 of the testimony was struck in Part 1.

23 Can you refer me to the ruling that struck it,
24 and do you recall why it was struck? Was it because it
25 pertains to Part 2?

1 MS. ANSLEY: No, it was not struck because it
2 pertains to Part 2. I believe it was two rulings.

3 The second ruling was December 8th, which was
4 specific to CSPA, and I think that the previous ma --
5 sort of master ruling on all -- There was a large
6 ruling, I think it was, October 7th or 8th of 2016.

7 So this was actually struck and then revised
8 again on a December 8th, I believe, ruling and it was
9 struck solely because it pertained to CEQA adequacy,
10 and that language is all back in this testimony.

11 CO-HEARING OFFICER DODUC: Mr. Jackson.

12 MR. JACKSON: Again, the CEQA language is
13 based on our understanding of the fact that there are
14 different responsibilities. CEQA didn't deal with the
15 issues that we are here now.

16 There is no CEQA issue on unreasonable effects
17 on fish and wildlife that were not studied in the CEQA
18 document.

19 There are no -- There was no examination of
20 public trust in the CEQA document, and there was no
21 examination of a balancing of the public interest in
22 the CEQA document.

23 We are now making those arguments directed
24 toward those issues.

25 CO-HEARING OFFICER DODUC: All right. We --

1 We'll take this under advisement.

2 Why don't we go ahead and adjourn so that we
3 may review these rulings and the exhibits, and we'll
4 try to reconvene at 10:30.

5 MS. ANSLEY: And -- And I'm happy to, in --
6 Obviously, in Mr. Jackson's presence, I'm happy to
7 share with Mr. Deeringer and Mr. Jackson -- so he knows
8 that there's nothing -- the parts that I've marked that
9 are actually different. Because it did take me, you
10 know, a long time to sit there and go through paragraph
11 by paragraph and make sure that they were roughly the
12 same.

13 CO-HEARING OFFICER DODUC: All right.

14 MS. ANSLEY: But that is up to Mr. Deeringer.

15 CO-HEARING OFFICER DODUC: Mr. Deeringer,
16 would you like the notes or . . .

17 MR. DEERINGER: That would be very helpful.

18 MS. ANSLEY: I'm happy to do that and,
19 obviously, in the presence of Mr. Jackson.

20 CO-HEARING OFFICER DODUC: Miss Ansley, were
21 you going to provide that?

22 MS. ANSLEY: I'm happy -- This is my personal
23 copy. I just figured we would do it during the break.
24 But if the Board wants me to go through line by line on
25 the record, that's fine.

1 But this doesn't have line numbers so it's a
2 little difficult. So I actually just went through and
3 highlighted what was the same and what was different,
4 if that gives an indication of scope.

5 Obviously, Mr. Deeringer will have to
6 obviously personally check the copies that are
7 submitted to the Board but . . .

8 I'm happy to do -- try and do that quickly.

9 MR. JACKSON: It would seem to me that in --
10 to -- to go forward with this hearing on an expedited
11 fashion, that this is something that should be taken up
12 in writing.

13 CO-HEARING OFFICER DODUC: Do what?

14 MR. JACKSON: This Motion to Strike to
15 probably be done in writing so that we don't take up a
16 lot of time at this point.

17 And -- And I'm perfectly happy to do the work,
18 but I'd like to put the witnesses on. And if it -- if
19 it's going to be struck by the Board later, that would
20 be fine.

21 But I --

22 CO-HEARING OFFICER DODUC: All right. Mr. --
23 All right. The morning started too well. I shouldn't
24 have said it this early.

25 (Laughter.)

1 CO-HEARING OFFICER DODUC: We are going to
2 take a break so that we can discuss this, including
3 your request, Mr. Jackson, to get this in writing, and
4 we will return at 10:30.

5 (Recess taken at 10:21 a.m.)

6 (Proceedings resumed at 10:36 a.m.):

7 CO-HEARING OFFICER DODUC: All right. It took
8 a little bit longer than I thought, but we needed the
9 time to review exhibits as well as discuss the
10 objection/motion.

11 Miss Ansley, your objection/motion, whatever
12 it was, is overruled in part and . . . sustained in
13 part.

14 The part that is overruled is your objection
15 to the entirety of Miss Vlamis' testimony. We find
16 that it is relevant to Part 2 and will allow her to
17 present that testimony.

18 The portion of your objection that is
19 sustained is, in reviewing her Part 2 testimony, there
20 are statements that we struck from Part 1 that dealt
21 with CEQA violations. Those continue to be outside the
22 scope of our hearing.

23 And, Miss Ansley, you may have the option, if
24 you'd like, to provide us in writing, although we could
25 probably refer to our ruling and the testimony in

1 Part 1 to determine what those statements are that were
2 struck.

3 Do we need anything from her in terms of the
4 CEQA violation-related statements?

5 MR. DEERING: Answering that, I guess we
6 would ask DWR: Were there any statements in there that
7 you -- you all were moving to strike for reasons other
8 than they related to CEQA violations?

9 MS. ANSLEY: No.

10 And I apologize that I did give you the wrong
11 dates of the rulings. I'm sure you were able to
12 quickly find the two rulings that I was trying to
13 reference.

14 CO-HEARING OFFICER DODUC: (Nodding head.)

15 MS. ANSLEY: I am move -- So, given the
16 Board's ruling and not rehashing that, what -- what
17 I -- what I believe I'm asking to be struck
18 specifically is -- is the sentences that were struck in
19 Part 1.

20 CO-HEARING OFFICER DODUC: So granted.

21 MS. ANSLEY: And I believe -- Right.

22 And I believe that we can -- either the staff
23 can revise or we can ask Mr. Jackson to go through and
24 strike those sentences.

25 They were not that difficult to identify,

1 obviously, since the Part 1 testimony was submitted in
2 a red-line strikeout.

3 I do add one more sentence that is new, a new
4 sentence that is in the same vein as the struck
5 testimony from Part 1. I'm happy just to quickly point
6 that one sentence out.

7 CO-HEARING OFFICER DODUC: Go ahead.

8 MS. ANSLEY: So if you look at Page 16 of
9 AQUA-227.

10 CO-HEARING OFFICER DODUC: Hold on.

11 Miss Gaylon, if you could please bring that
12 up.

13 (Exhibit displayed on screen.)

14 MS. ANSLEY: Thank you.

15 And if you looking at the second paragraph
16 that begins "without explanation," I would move to
17 strike the last sentence, "in the absence," on the same
18 grounds the testimony was struck in Part 1 because it
19 discusses deficiency under CEQA and NEPA. And I
20 believe that's in exactly the same vein as the Board's
21 prior ruling.

22 And then I would like to lodge an objection
23 but it doesn't need to be dealt with at this moment.

24 I had mentioned earlier that many of the
25 exhibits referenced in Part 1, submitted in Part 1 and

1 admitted in Part 1, are re-referenced in the same
2 testimony here but also resubmitted as new exhibits.

3 I would say those are duplicative and that we
4 don't need to submit two copies of the same -- the same
5 exact exhibit into the record again.

6 CO-HEARING OFFICER DODUC: Understood. And I
7 would -- we would agree and we will deal with that
8 later.

9 MS. ANSLEY: And however you want to deal with
10 that later, I'm happy to make a list.

11 CO-HEARING OFFICER DODUC: All right.

12 MR. JACKSON: In regard to the exhibits, the
13 exhibits that are in the record are the -- I understand
14 the duplicative nature of it. Don't need it twice.

15 She can refer to those exhibits and use those
16 exhibits because they're in the record.

17 CO-HEARING OFFICER DODUC: (Nodding head.)

18 MR. JACKSON: Is it -- Am I correct?

19 CO-HEARING OFFICER DODUC: Correct.

20 CO-HEARING OFFICER MARCUS: Yeah.

21 MS. ANSLEY: Okay.

22 CO-HEARING OFFICER DODUC: All right. With
23 that, I think we're now back to Mr. Jackson for his
24 direct.

25 MR. JACKSON: Ms. Vlamis, would you summarize

1 your testimony, keeping in mind the ruling as best you
2 understand it in regard to the adequacy of the CEQA
3 document.

4 WITNESS VLAMIS: I will do my best. I may
5 make a mistake, and I will try to correct it, or I will
6 accept correction.

7 I am the Executive Director of AquAlliance and
8 have 26 years of experience in environmental advocacy
9 and education.

10 AquAlliance is a not-for-profit public benefit
11 corporation that was formed in 2009. Its mission is to
12 defend Northern California waters and the ecosystems
13 these waters support, and to challenge threats to the
14 hydrologic health of the Northern Sacramento River
15 Watershed, including escalating attempts to divert and
16 withdraw more water from the Sacramento River
17 hydrologic region.

18 AquAlliance's members include farmers,
19 scientists, businesses, educators, residents who have
20 significant financial, recreational, scientific,
21 esthetic, educational and conservation interests in the
22 aquatic and terrestrial environments that rely on
23 waters of the Sacramento River Watershed.

24 This hydrologic system provides water for
25 orchards, homes, gardens, businesses, schools,

1 wetlands, streams, rivers, terrestrial habitat and
2 myriad species which, in turn, allows AquAlliance
3 members to reside, farm, fish, hunt, cycle, photograph,
4 camp, swim, learn and invest in the economy of the
5 region.

6 As demonstrated in our written testimony and
7 comments on . . . the environmental documents -- I hope
8 I can bring that up -- there is a great deal omitted
9 from the WaterFix NEPA and CEQA documents on which you
10 must rely.

11 The Applicants ignored the requirements in
12 NEPA and CEQA that demand entire project disclosure and
13 analysis with impacts avoided or mitigated.

14 In addition to the legal failures, one must
15 opine that where the water comes from has --

16 CO-HEARING OFFICER MARCUS: Miss Vlamis, can
17 I -- do you mind if I give you just a little --

18 WITNESS VLAMIS: Sure.

19 CO-HEARING OFFICER MARCUS: -- background on
20 this because there's an objection coming.

21 WITNESS VLAMIS: I know. I mean, I've got
22 CEQA and NEPA all through my written testimony --

23 CO-HEARING OFFICER MARCUS: I know.

24 WITNESS VLAMIS: -- so I --

25 CO-HEARING OFFICER MARCUS: Here's the

1 distinction. You weren't here yesterday and --

2 WITNESS VLAMIS: Okay.

3 CO-HEARING OFFICER MARCUS: And we tried to
4 write a couple of times in decisions.

5 WITNESS VLAMIS: Okay.

6 CO-HEARING OFFICER MARCUS: But people -- I
7 think people should read what we write and make time.
8 I say that to everyone, because we're trying to --

9 WITNESS VLAMIS: I try.

10 CO-HEARING OFFICER MARCUS: -- explain and
11 some of these things are difficult.

12 It is totally fine for you to say, "It didn't
13 have this information. You need this information to
14 make your decision."

15 Where you're straying is in opining about --

16 WITNESS VLAMIS: Adequacy.

17 CO-HEARING OFFICER MARCUS: -- adequacy under
18 the law, which I know since you and all of us have
19 challenged EIRs for years, almost like it pops out of
20 your -- You know, you've said -- It's like spelling
21 Mississippi, you know.

22 You've said it before. But it's not -- This
23 has to be very precise, that's all.

24 So if you can just edit out the editorial
25 piece of it and talk about the data itself, that's

1 fine.

2 WITNESS VLAMIS: I will do my very best.

3 CO-HEARING OFFICER MARCUS: Do your best.

4 It's hard, I know.

5 WITNESS VLAMIS: Thank you.

6 So, where was I?

7 CO-HEARING OFFICER MARCUS: Sorry.

8 WITNESS VLAMIS: It's as if the Sacramento
9 Valley foothill people, farms and businesses that all
10 depend on the water that supports the human and natural
11 landscapes are not there.

12 Or we could learn from experience with the
13 same agencies and conclude that they operate as though
14 they are above the laws of people and nature. Think of
15 the Oroville Dam disaster and the fish slaughters in
16 2014 and 2015 water years.

17 Or we may conclude that all of the above are
18 part of the culture and operation of agencies that use
19 public money for monstrous private profit.

20 Could I have my PowerPoint up, which is 267.

21 (Exhibit displayed on screen.)

22 WITNESS VLAMIS: And Slide 2.

23 (Exhibit displayed on screen.)

24 WITNESS VLAMIS: Thank you.

25 Added to what we prepared for Part 1 of the

1 WaterFix hearings are the '2004 to 2016 numbers. I
2 will not go through each individual designation.

3 But here, like, is a summary of what's still
4 going on in the watershed of origin for this Project.

5 Deep wells appear to have improved in Colusa
6 and Glenn Counties from the '04-2015 figures, but they
7 were worse in Butte County. Tehama and Colusa
8 Counties' maximum decreases are still below the
9 measurements for the 2004-2014 period so still
10 suffering.

11 Intermediate wells' maximum decrease worsened
12 in Butte and Glenn Counties from the '04-2015 figures.
13 Colusa's maximum improved by 45 feet but still remained
14 40 -- 80 feet -- excuse me -- below the '04 level, and
15 Tehama's maximum improved ever so slightly.

16 The shallow wells' maximum decrease worsened
17 in Colusa, Glenn and Tehama Counties, and Butte's
18 maximum can improved ever so slightly.

19 The significant concerns about fall 2015
20 groundwater levels was summarized by a DWR employee, so
21 I thought it was level to share with you and people
22 paying attention to this hearing.

23 Bill Einhorn, who is the Chief of Groundwater
24 Section in the Northern Region Office of DWR gave an
25 update on the groundwater levels within the Northern

1 Sac Valley Region.

2 This is a quote from some minutes (reading):

3 "The change maps for October
4 groundwater level show that, in much of
5 the northern valley, the groundwater
6 levels are lower than 2011, going from
7 bad to worse. Historic ground-level
8 hydrograph maps show that groundwater
9 levels are at the lowest ever on the
10 record. A wet winter will help the water
11 tables rebound but deeper aquifers will
12 take longer to rebound."

13 And we are finding that on the ground. I have
14 farmers that we work with in Colusa County whose --
15 whose wells even after 2017 are still suffering down --
16 right around the 80 feet.

17 The absence of current scientific research in
18 the Project's environmental review --

19 Is that okay? talking about an absence of
20 something?

21 CO-HEARING OFFICER DODUC: How -- How is that
22 absence related to a specific key issue before us?

23 WITNESS VLAMIS: It allows you without
24 information that is necessary for the Project's
25 watershed.

1 CO-HEARING OFFICER DODUC: Okay. As long as
2 you can make that connection.

3 WITNESS VLAMIS: Okay. I'll leave it there.

4 Could I have the next slide, please.

5 (Exhibit displayed on screen.)

6 WITNESS VLAMIS: This is new material that I
7 thought would also help, because visuals certainly help
8 people to understand the number of wells that are in
9 significant trouble in the Butte County area.

10 There were 18 -- as I counted -- 18 Stage 2
11 alert levels, which is the most significant, and this
12 is in the spring of 2016, and there were 10 Stage 1
13 alert levels.

14 The next slide, please --

15 (Exhibit displayed on screen.)

16 WITNESS VLAMIS: -- shows the fall of 2016,
17 still with 13 Stage 2 alert levels and 12 in Stage 1.

18 One of the problems with measurements, if
19 they're -- There's no ability to . . . remedy it. It's
20 something that we encounter with these BMOs, and which
21 I think is true for a great deal of monitoring. And
22 there's -- there is absolutely no ability to alter any
23 of this by regulation or ordinance.

24 But this is helping, I hope, to describe to
25 you that this area -- again, the watershed of origin

1 for this Project -- is experiencing trouble from its
2 own use as well as the climate.

3 Slide 5, please.

4 (Exhibit displayed on screen.)

5 WITNESS VLAMIS: With all the projects, plans
6 and programs seeking to extract massive amounts of
7 water from the Sacramento River Watershed, you would
8 think there would have been some intense scientific
9 scrutiny over decades of numerous topics but
10 particularly hydrology.

11 The depletion of streamflow and the
12 interaction between streams, rivers and groundwater all
13 seemed right for studies since our laws require
14 disclosure, documentation, analysis and avoidance of
15 impacts.

16 I finally had it pounded into my head that
17 this was not going to happen over a decade ago, and I'm
18 going to share with you what I think is an important
19 factual story.

20 I called the Bureau of Reclamation in 2007-8
21 period to find out what was the status of the
22 Sacramento Valley Water Management Agreement and that
23 Draft EIS EIR and that the Applicants -- these
24 Applicants -- initiated theoretically after the 2003
25 Federal Register notice.

1 I was referred to a Bureau employee who I'd
2 spoken to before. He was terse from the start and told
3 me that the Bureau and DWR both spent a million dollars
4 each on the Project.

5 But when I pressed him for the third time for
6 an answer to my question, "Why isn't the draft
7 environmental review finished," he yelled at me over
8 the phone, "Because the science isn't there."

9 Finally, I had a clear answer from one of the
10 agencies. Moreover, since the science still isn't
11 there, our panel is here to help you and the public not
12 only understand the facts but present them, hopefully,
13 in a usable form, something the Applicants have refused
14 to do despite the fact that Mr. Custis, who will speak
15 next, uses their data.

16 Slide 6.

17 (Exhibit displayed on screen.)

18 WITNESS VLAMIS: I use Butte County as an
19 example of a jurisdiction vulnerable to what we call
20 the "fake fix" up in my territory.

21 There are 27,699 domestic wells alone in Butte
22 County and approximately 2579 irrigation wells.

23 The Chico urban area is the largest urban
24 center north of Sacramento with a population of
25 approximately 102,000. It is nestled against the

1 foothills of the Cascade and Sierra Mountain ranges and
2 is entirely dependent on groundwater.

3 Seven streams traverse Chico and carry
4 significant water from eastern watershed -- from the
5 eastern watershed to the Sacramento River.

6 Numerous additional creeks flow through Butte
7 County. The healthy groundwater table is necessary to
8 maintain flows and riparian habitat that in turn are
9 essential for many special-status aquatic, avian, and
10 terrestrial species.

11 The Applicants' failure to identify, analyze
12 and discuss the short- and long-term sources for water
13 for the tunnels, water transfers mentioned in the --
14 their documents, and the numerous cumulative water
15 transfer plans and projects that will further exploit
16 Sacramento Valley water because of the -- because of
17 the tunnels leaves more state residents, businesses,
18 groundwater, dependent farms, recreationists, habitats
19 and species vulnerable.

20 Bidwell Park, the second largest municipal
21 park in the country, is an ideal example of a
22 significant cultural feature that is bisected by a
23 local stream, Big Chico Creek, which could be seriously
24 impacted by the long-term operation of the Project.

25 The park is a Regional Park that is adored by

1 residents, tourists, scientists and myriad recreational
2 enthusiasts.

3 Its tree canopy, riparian habitat and aquatic
4 ecosystem are dependent on a robust groundwater table
5 to support the creek and many ancient Oak and Sycamore
6 trees. It also serves as a haven for species, as noted
7 in the Butte County Conservation Plan.

8 Quote:

9 "A variety of native and non-native
10 fish inhabit the streams of the Big Chico
11 Creak Drainage Basin within the Plan
12 Area. Native species include Chinook
13 Salmon, Central Valley spring- run and
14 fall/late fall-runs Steelhead and Rainbow
15 Trout, the Sacramento Pick Minnow,
16 California Roach, Sacramento Sucker,
17 Hardhead, Riffle Sculpin and Pacific
18 Lamprey, while non-native species include
19 Smallmouth Bass, Green Sunfish and Brown
20 Trout."

21 Other streams that are vital to special status
22 fish species are also noted in the Butte County HCP
23 (reading):

24 "Chinook Salmon (fall-run and
25 spring-run) and Steelhead migrate into

1 Butte Creek to spawn, moving as far
2 upstream as Centerville Head Dam."

3 "Several smaller permanent and
4 ephemeral creeks flow through the Plan
5 Area, including Little Chico Creek, Mud
6 Creek, Rock Creek, and Little Dry Creek,
7 that support one or more life stages of a
8 number of native and non-native . . .
9 species. These smaller waterways can be
10 important non-natal rearing rounds for
11 Salmonids, provide ample food for rapid
12 growth rates of Salmonids that improve
13 juvenile survival during their downstream
14 migration towards the ocean."

15 Next slide, please.

16 (Exhibit displayed on screen.)

17 WITNESS VLAMIS: The CVP and SWP have extended
18 water far from the waters of origin for agricultural,
19 urban, and industrial uses. In so doing, particularly
20 with paper water, the state and Federal governments
21 have facilitated a destructively unrealistic demand for
22 water.

23 Ever willing to destroy natural systems to
24 meet demand for profit, the San Joaquin River dried up
25 and subsidence caused by groundwater depletion in the

1 San Joaquin Valley is even cracking water conveyance
2 facilities.

3 The continual long-term groundwater overdraft
4 in the San Joaquin Valley, the expansion of new
5 permanent crops in both the San Joaquin and Sacramento
6 Valleys, and groundwater substitution transfers by CVP
7 and SWP Contractors all cause streamflow depletion.

8 Enter conjunctive use in the Sacramento Valley
9 Water Management Agreement with the Applicants
10 facilitating, and their Contractors implementing, river
11 water sales and groundwater substitution to continue
12 crop production.

13 Over 25 years, the Applicants have failed to
14 present to the public how the CVP and SWP caused and
15 currently cause streamflow depletion. This is equally
16 true for the WaterFix and is a major omission that
17 leaves the State Water Board without information on
18 which it should rely.

19 Next slide, please.

20 (Exhibit displayed on screen.)

21 WITNESS VLAMIS: The 2014 work of Mr. Custis
22 made it clear what are the historic and current trends
23 in the Sacramento Valley. AquAlliance's Exhibit 256
24 provides a comprehensive picture of the destructive
25 past and present impacts to the groundwater and streams

1 of the Sacramento River that should have been revealed
2 in the docu -- the NEPA CEQA documents. It
3 encapsulates all that the Lead Agencies seek to
4 obfuscate from the public and policy makers.

5 Next slide, please.

6 (Exhibit displayed on screen.)

7 WITNESS VLAMIS: In addition, DWR's own
8 consultant demonstrated that impacts -- that the
9 impacts are significant from -- to the streams. Peter
10 Lawson of CH2M HILL wrote in a 2010 memo to DWR, quote:

11 "The effect of groundwater
12 substitution transfer pumping on
13 streamflow, when considered as a percent
14 of the groundwater pumped for the program
15 is significant. The impacts were shown
16 to vary as the hydrology of the periods
17 following the transfer program varied.
18 The three scenarios presented here" --
19 again, this is Mr. Lawson speaking --
20 "estimated effects of transfer pumping on
21 streamflow when dry, normal and wet
22 conditions followed transfer pumping.
23 Estimated streamflow losses in the
24 five-year period following each scenario
25 were 44, 39, and 19 percent of the amount

1 of groundwater pumped during the
2 four-month transfer period."

3 The results of the model run was the best
4 prediction available to Applicants and suggested
5 caution above all else, even though they are
6 preliminary and the model subject to modification.

7 But instead of implementing the conservative
8 results from this 2010 modeling run, the Applicants
9 rely -- and the model that the Applicants rely on for
10 other analysis, they instead continue to use a 12 or
11 13 percent deduction for streamflow during transfers
12 without any factual justification for the lowball
13 percentages.

14 We repeat again, the Applicants failed to
15 disclose, analyze and propose mitigation for the
16 possible impacts from increased extraction of water
17 from the Sacramento Valley.

18 Dan Wendell of The Nature Conservancy provided
19 what DWR and the Bureau have not. In 2014, he gave us
20 foresight about what happens to groundwater-dependent
21 ecosystems and streamflow as groundwater diminishes
22 (quote):

23 "If we want to avoid problems in
24 areas that are reasonably healthy today,
25 it is imperative that we consider the

1 overall value of the hydrologic system,
2 both to man and to nature. Time is of
3 the essence in these cases since the
4 environmental and surface water rights
5 impacts occur very early in groundwater
6 development, when modest water level
7 declines of only 20 to 40 feet can result
8 in significant depletion of streamflow
9 and even perhaps loss of perennial flow
10 and the impact of surface water rights."

11 The Applicants' decision to avoid disclosure
12 and analysis for the Project . . . maybe treads into
13 areas I'm not supposed to bring up . . . but evades
14 proper review, if I may say that.

15 Next slide, please.

16 (Exhibit displayed on screen.)

17 WITNESS VLAMIS: As with other potential
18 impacts in the Sacramento River Watershed that were not
19 addressed in the BDCP and WaterFix environmental review
20 which you need for your information, subsidence is also
21 lacking. The Applicants are well aware of subsidence
22 issues in the Central Valley and their WaterFix Project
23 proposes up to 400,000 acre-feet of groundwater
24 substitution transfers, as I've mentioned in my formal
25 testimony, in the very region of Sacramento Valley

1 where more recent subsidence is occurring.

2 And, of course, the WaterFix plans to continue
3 business as usual in the San Joaquin Valley that has
4 been devastated by subsidence.

5 Without explanation or apology, there is -- I
6 could not find current or historic analysis. But there
7 was a mention of overall subsidence in the Mendota area
8 of 28 feet, but there was no mention -- citation or a
9 timeframe.

10 And then there was older research quoted:

11 "Most San Joaquin Valley subsidence
12 is thought to have been caused primarily
13 by deep aquifer system pumping during the
14 '50s and '60s but is considered to have
15 largely abated since '74 because of the
16 development of more reliable agricultural
17 surface water supplies from the
18 Delta-Mendota Canal and Friant-Kern
19 Canal."

20 This is from the USGS.

21 And I just ask, really, while USGS and NASA
22 document -- document San Joaquin canals cracking and
23 bridges so close to the water that they're going over,
24 how can that be anything current that is being
25 presented to this Board about the existing conditions

1 in which this Project is trying to move -- from which
2 it's trying to move forward.

3 The subsidence is significant and it is -- it
4 is not -- has not been presented, to my knowledge, to
5 this Board.

6 The absence of current scientific research
7 regarding groundwater mining and subsidence leaves the
8 Board without information it needs.

9 It appears to me that the agencies practice
10 the philosophy, "It is better to ask for forgiveness
11 than permission," which would require full disclosure,
12 robust analysis, and results that lead to the least
13 environmentally damaging alternative.

14 Last slide, please. I'm wrapping up.

15 (Exhibit displayed on screen.)

16 WITNESS VLAMIS: I would like to close with a
17 quote from a Congressman who I thought predicted all of
18 this and what's in my slide.

19 I found his quote in the 1969 flier that was
20 created by Contra Costa County and saved by my family
21 (quote):

22 "I have come to bury the State Water
23 Project and to call on the State of
24 California to make drastic changes in its
25 outlook and its water export project so

1 that the northern part of the state, and
2 particularly the San Francisco Bay Delta
3 estuary system, will not become a
4 biological desert.

5 "Without regard to the life system
6 of the Bay Delta -- the systems of the
7 Bay Delta system, the state will
8 knowingly, and by design, sacrifice this
9 unique and irreplaceable resource in
10 order to reach its water export
11 requirements.

12 "There is no place to go in
13 California, outside of the courts, to get
14 a fair hearing on the allocation of water
15 resources. There is no administrative or
16 quasi-judicial body, commission or agency
17 in California that has not carefully
18 contrived to arrive at a predetermined
19 judgment advancing the overall plan to
20 export Delta water to the south.

21 "If an area involved in a water
22 controversy is not a customer purchasing
23 water from the Department of Water
24 Resources and the State Water Project,
25 that area will not find relief or

1 assistance from any state agency or Board
2 when it is in conflict with a customer
3 area.

4 "The role of the Department of Water
5 Resources has changed from a conservation
6 agency to a state-operated utility which
7 is in the business of selling the state's
8 water resources, a role unique in all of
9 the 50 states."

10 He does continue, but I'm stopping his quote
11 there.

12 And I'm ending by asking you to tell me that
13 this isn't so in 2018.

14 MR. JACKSON: Thank you.

15 Dr. Custis, will you -- Or, excuse me.

16 Mr. Custis, will you -- I saw the sign earlier
17 before you ripped it off.

18 Would -- Would you please summarize your
19 testimony, sir.

20 WITNESS CUSTIS: Thank you.

21 The purpose of my testimony is to provide
22 hydrogeologic information on potential impacts from
23 WaterFix Project to the environment associated with
24 groundwater and surface water resources in the
25 Sacramento Valley and the Delta, and provide

1 recommendations for conditions in the change in the
2 Point of Diversion Permit.

3 MR. JACKSON: Mr. Custis, would you raise your
4 voice a little or move closer to the microphone.

5 THE DEFENDANT: If I don't lose my voice here.

6 Comments and exhibits provided in my WaterFix
7 Part 1 testimony, AquAlliance Exhibits 5 through 33,
8 are also relevant to my WaterFix Part 2 testimony.

9 Because the losses in surface water and
10 groundwater resources as a result of groundwater
11 substitution or crop idling transfers also affect
12 environmental conditions, plants, wildlife habitat and
13 wildlife.

14 The issues all addressed in my Part 2
15 testimony cover three areas:

16 First, the potential impacts to the Del --
17 environment of the Delta and adjacent lands from
18 disruption of groundwater flow resulting from the
19 construction of the WaterFix Tunnels.

20 Second, the potential impact to plants,
21 aquatic and terrestrial habitat and wildlife in
22 Sacramento Valley because of increased opportunities to
23 convey water transfer from the Sacramento Valley across
24 the Delta using the WaterFix Tunnels.

25 And, finally, the potential for environmental

1 impacts to the Delta from construction of the WaterFix
2 Tunnels through an operating natural gas field.

3 Issue one, impacts of the tunnels to
4 groundwater flow -- Delta groundwater flow.

5 In the 2016 Final EIR/EIS, Alternative 4A --
6 for the WaterFix, Alternative 4A is the preferred
7 alternative.

8 In Chapter 7 of the Final EIR/EIS under Impact
9 Groundwater-2 discusses the impact of groundwater
10 resources during operations, stating that (reading):

11 "Operation of the tunnel would have
12 no effect on existing wells or yields
13 given the facilities would be located
14 more than 100 feet underground and would
15 not substantially alter groundwater
16 levels in the vicinity."

17 In my opinion, the impact to aquifer flow can
18 occur during tunnel operations because the tunnel up --
19 up -- because tunnels up to 40-foot inside diameter
20 will be constructed approximately 39 linear miles
21 across the Delta, creating a continuous impermeable
22 barrier to groundwater flow.

23 I need my exhibits, which is what, 201?
24 PowerPoint.

25 (Exhibit displayed on screen.)

1 WITNESS CUSTIS: Okay. And next slide --
2 first slide.

3 (Exhibit displayed on screen.)

4 WITNESS CUSTIS: AQUA Exhibit 204 was taken
5 from DWR's website and shows the 2017 spring
6 groundwater elevations from the Delta.

7 Note the red contour at sea level on to the
8 east or to the right and the low -- low points that
9 range from minus 30 to minus 70 feet below sea level.

10 The present-day general direction of
11 groundwater flow in the Delta is from west to east to
12 sustain more south-oriented groundwater depression,
13 which is where the red contours are outlined.

14 The north-south-oriented WaterFix tunnel
15 structure will cut off almost perpendicular to the
16 general eastward direction of regional flow. The
17 redirection of groundwater flow around the impermeable
18 barrier will depend on continuity of shallow aquifer
19 interconnections but the groundwater will continue to
20 flow.

21 Published hydrogeologic information can help
22 describe the groundwater conditions in the Sacramento
23 and San Joaquin Counties in relationship to the Delta.

24 Next slide.

25 (Exhibit displayed on screen.)

1 WITNESS VLAMIS: AquAlliance Exhibit 205 is a
2 map of the Mokeulmne River Fan deposits and the Delta
3 as described by Schlemon in 1971.

4 Returning alluvial fan deposits and
5 gravel-filled channels in the Mokelumne River area
6 interfinger with the deltaic settlements. These
7 general deposits increase in depth to the west.

8 Schlemon estimated that the oldest Mokelumne
9 River Fan channel deposits are approximately 310 feet
10 below sea level beneath Sherman Island.

11 Next slide.

12 (Exhibit displayed on screen.)

13 WITNESS CUSTIS: AquAlliance Exhibit 208B is
14 from DWR's Bulletin 118-3 and shows the location of
15 shallow coarse-grained American River channel deposits
16 in Southwestern Sacramento County that carry glacial
17 runoff from the Sierra Nevada. These coarse-grained
18 deposits would have interbedded with the finer-grained
19 Delta deposits.

20 Next slide.

21 (Exhibit displayed on screen.)

22 WITNESS CUSTIS: AquAlliance Exhibit 207 shows
23 the approximate locations of four high-tide shorelines
24 in the San Francisco Bay during the past 15,000 years.

25 The lowering of sea level during that time,

1 and actually prior to that time -- this is the raising
2 of sea level in the last 15,000 years -- causes
3 significant change in the geology in the Delta by,
4 first, downcutting channels and then backfilling with
5 coarse-grained sediments as sea level rose.

6 The coarse-grained backfilled channels cut
7 across finer-grained Delta sediment deposits creating
8 the potential for interconnecting subsurface channels
9 and fan deposits with the Delta's shallow groundwater
10 system.

11 Next slide.

12 (Exhibit displayed on screen.)

13 WITNESS CUSTIS: AQUA Exhibit 206 shows the
14 Pleistocene channel deposits in the Mokulumne River Fan
15 intercepting Delta deposits similar to the WaterFix
16 tunnel.

17 Next slide.

18 (Exhibit displayed on screen.)

19 WITNESS CUSTIS: AquAlliance Exhibit 209A
20 shows the location of geologic cross-sections for
21 Sacramento County from DWR's Bulletin 118-3.

22 Next slide.

23 (Exhibit displayed on screen.)

24 WITNESS CUSTIS: AQUA Exhibits 209B and 209C
25 show northeast-southwest oriented cross-sections E and

1 F with the location of the WaterFix Alternative 4
2 tunnels.

3 These cross-sections show that the American
4 River channel deposits extend into the depth of the
5 tunnels.

6 Next slide.

7 (Exhibit displayed on screen.)

8 WITNESS CUSTIS: This is Figure 4 -- 9-4a from
9 the Final EIR. It is a map of the geotechnical borings
10 along Alternative 4A tunnel alignment.

11 Next slide.

12 (Exhibit displayed on screen.)

13 WITNESS CUSTIS: The next few slides are from
14 the Final EIR and they're geotechnical cross-sections.
15 They're Figures 9-4d and e from Chapter 9 of the
16 Final EIR.

17 Coarse-grained deposits encountered in 25
18 WaterFix geotechnical borings along the conveyance
19 alignment are likely laterally connected to the
20 aquifers that originate east of the Delta.

21 Next slide.

22 (Exhibit displayed on screen.)

23 WITNESS CUSTIS: It's just a continuation and
24 the next slide is another example of these.

25 Next slide.

1 (Exhibit displayed on screen.)

2 WITNESS CUSTIS: That's a closeup so you can
3 see it a little bit easier.

4 Next slide.

5 (Exhibit displayed on screen.)

6 WITNESS CUSTIS: All right. The construction
7 of the WaterFix Tunnels would create a 39-mile-long up
8 to 40-foot-thick impermeable barrier across the shallow
9 aquifer system in the Delta, which would cause a number
10 of environmental impacts.

11 The tunnels will likely cause some disruption
12 in horizontal and vertical flow of groundwater within
13 the upper 150 feet. The disruption will vary from
14 disconnecting aquifer zones to reorienting flow
15 directions. Groundwater may be forced to flow
16 vertically upward or downward, depending on relative
17 impermeability.

18 Groundwater flows may also reorient along the
19 north-south edges of the tunnel barrier creating new
20 connections with adjacent aquifers and river channels.

21 Increased vertical upward flow can cause added
22 impacts to cultural and near-surface structures,
23 possible impacting levees with increase seepage.

24 Changes in either vertical or horizontal
25 groundwater flow could cause local or regionally

1 significant changes in the environment and aren't
2 reasonably remedied.

3 The depth and extent of the tunnels will make
4 correcting any environmental impacts that develop
5 during operations difficult, costly to study and costly
6 to mitigate.

7 WaterFix Project permit conditions should
8 include monitoring and mitigation measures to establish
9 baseline groundwater conditions along the entire length
10 of the tunnels and provide long-term monitoring of
11 groundwater flow and water quality along the length.

12 The Permit conditions should require
13 mitigation measures to correcting environmental impacts
14 to groundwater resources created by the Project along
15 the entire length of the tunnels.

16 Issue 2. Impacts and transfers on surface
17 water and groundwater in the Sacramento Valley.

18 The WaterFix Project could increase the volume
19 and frequency of the cross-Delta water transfers
20 exported from the Sacramento Valley, as well as provide
21 longer export times than allowed under current
22 regulatory constraints.

23 The Final EIR states that the analysis of the
24 effects of water transfers was based on an annual
25 volume of cross-Delta transfers ranging up to 600,000

1 to 1 million acre-feet.

2 This includes groundwater substitution
3 transfers from upstream of the Delta by 400,000
4 acre-feet per year and crop idle transfers of up to
5 507,000 acre-feet per year.

6 These water transfers have potential to
7 significantly impact surface water and groundwater
8 resources, habitats, and wildlife in the Sacramento
9 Valley.

10 For example, modeling of the impact of
11 groundwater pumping by DWR and USGS show that 80 to
12 85 percent of the volume of water extracted in the
13 Sacramento Valley and Central Valley eventually comes
14 from surface waters.

15 Although the location of a well can change,
16 the rate and duration of loss of surface water flows,
17 the modeling shows the cumulative volume of loss from
18 groundwater extraction is relatively consistent.

19 AquAlliance-213 includes a graph, Figure 14
20 shown here, from a 2014 study on the source of
21 groundwater wells -- groundwater to wells by Konikow
22 and Leake, two USGS researchers.

23 The study included an evaluation of
24 groundwater pumped in the Central Valley of California
25 using Central -- USGS' Central Valley hydrologic model.

1 This paper -- In this paper, stream dilution
2 is called "capture," which includes all the processes
3 that supply surface water to the groundwater system.

4 Figure 14 has four lines. The upper dashed
5 blue line is the annual, and the solid blue line is the
6 cumulative percentage of groundwater supplied wells
7 from capture of surface water flow -- of surface water.
8 The lower two red lines are annual and cumulative
9 percentages of groundwater supplied to wells from
10 aquifer storage.

11 Figure 14 shows that the base . . .

12 Figure 14 shows that based on USGS model,
13 approximately 85 percent of the cumulative volume of
14 groundwater being pumped in the Central Valley comes
15 from capture of surface waters.

16 The dashed line shows that the annual amount
17 of capture can approach 100 percent.

18 This finding from the 2014 USGS study is
19 consistent with my testimony on AquAlliance Exhibit 18
20 where I conclude --

21 Next slide.

22 (Exhibit displayed on screen.)

23 WITNESS CUSTIS: -- where I conclude that
24 based on DWR's modeling, the historic increase in
25 groundwater discharge to surface water, called

1 accretion by DWR -- equals approximately 80 percent of
2 the groundwater being pumped.

3 The DWR and USGS model estimates of 80 to
4 85 percent capture of surface water from groundwater
5 pumping is significantly greater than the 13 percent
6 stream depletion correction factor required for
7 groundwater substitution transfers.

8 That requirement is given on Page 31 of the
9 draft technical information for preparing water
10 transfer proposals prepared by DWR and the Bureau of
11 Reclamation and referred to in the Final EIR in
12 Chapter 1, Appendix 1E, Page 8.

13 The WaterFix Permit conditions should
14 acknowledge that the current DWR/Bureau of Reclamation
15 stream depletion factor of 13 percent significantly
16 underestimates the surface water losses from
17 groundwater substitution transfers.

18 The WaterFix Project permit condition should
19 acknowledge existing science on surface
20 water/groundwater interactions in calculating the
21 amount of capture to determine the quality of water
22 available for groundwater substitution transfers.

23 A minimum -- A required minimum correction
24 factor for transfer should be 80 to 85 percent of the
25 groundwater extracted.

1 My testimony in Part 1 provided a discussion
2 of potential impacts to Sacramento Delta groundwater
3 and surface water from groundwater substitution on crop
4 idle cross-Delta transfers.

5 This analysis is still valid from my comments
6 on environmental impacts in Part 2.

7 My Part 1 and Part 2 testimonies rely in part
8 on environmental impacts from the March 2015 Bureau of
9 Reclamation/San Luis & Delta-Mendota Water Authority
10 10-year long-term transfer in the Final EIR/EIS.

11 Next slide screen.

12 (Exhibit displayed on screen.)

13 WITNESS CUSTIS: This is an exhibit, AQUA
14 Exhibit 215A and is taken from that 10-year-long term
15 transfer EIR/EIS.

16 It shows the simulated change in shallow water
17 table for groundwater substitution transfers for one of
18 the modeling scenarios. Drawdowns of intermediate and
19 deep zones were also included as AQUA Exhibit-215B
20 and C.

21 My part -- My Part 2 testimony provides maps
22 that overlay outlines of maximum extent of the 10-year
23 transfer shallow drawdown zones on different critical
24 habitat areas in the Sacramento Valley for various
25 species.

1 The following are an example.

2 We can go to the next slide.

3 (Exhibit displayed on screen.)

4 WITNESS CUSTIS: AQUA Exhibit 217A is an
5 outline of a maximum shallow water table drawn on a map
6 of critical habitat for Steelhead in Sacramento Valley.

7 Next slide.

8 (Exhibit displayed on screen.)

9 WITNESS CUSTIS: AquAlliance Exhibit 218A
10 shows the drawdown area on a map of critical habitats
11 in the Sacramento Valley.

12 Next slide.

13 (Exhibit displayed on screen.)

14 WITNESS CUSTIS: AquAlliance 20 -- 220A shows
15 a drawdown of map of wildlife areas and conservation
16 easements owned and operated in the Sacramento Valley
17 by the state.

18 Next slide.

19 (Exhibit displayed on screen.)

20 WITNESS CUSTIS: This is -- AquAlliance-220C
21 shows the same wildlife conservation easement plans
22 with a deep maximum -- the maximum deep aquifer
23 boundary drawn on it for comparison.

24 Next slide.

25 (Exhibit displayed on screen.)

1 WITNESS CUSTIS: This is -- Exhibit 222A shows
2 the density of groundwater on dependent wetlands in
3 Sacramento Valley from a 2010 study by Howard and
4 Merrifield.

5 Although I didn't draw the transfer drawdown
6 overlays on this, it's obvious from the large areas of
7 groundwater, that wetlands lie within the areas
8 impacted by groundwater substitution transfers.

9 The Sacramento Valley has numerous streams,
10 rivers, areas of critical habitat, and areas that are
11 managed as Wildlife Refuges and conservation easements.

12 These critical habitat areas can be negatively
13 affected when surface water is reduction -- reduced
14 and/or groundwater levels are lowered as a result of
15 groundwater substitution and crop idling transfers.

16 A WaterFix Project Permit condition should
17 require monitoring and mitigation measures for
18 cross-Delta water transfers to protect the ground --
19 the environmental resources, habitat, and wildlife in
20 the Sacramento Valley and not assume what other
21 agencies' analysis for each Project will identify and
22 implement adequate environmental protections.

23 Third issue. Tunneling through a gas field.

24 Next slide.

25 (Exhibit displayed on screen.)

1 WITNESS CUSTIS: The next two slides are --
2 AquAlliance Exhibits 2225A and B are maps of oil and
3 gas fields and wells along the approximate tunnel
4 alignment for Alternate 4 and 4A.

5 These maps were taken from the California
6 Department of Conservation's Division of Oil and Gas
7 and Geothermal Resources Well Finder website.

8 WaterFix -- The WaterFix Final EIR/EIS states
9 in Chapter 24 that locations of active wells are
10 relatively easy to determine but older gas wells may
11 have been abandoned or shut in without high detailed
12 locations -- location data, and warns that additional
13 (reading):

14 ". . . active, abandoned, or (sic)
15 shut-in wells or (sic) gas wells may be
16 present in" the area "where excavation is
17 planned.

18 "Improperly sealed natural gas wells
19 have the potential to act as natural gas
20 conduits from deep reservoirs to shallow
21 strata where flammable gas may pose
22 hazards to excavation or tunneling
23 activities. The locations of many
24 abandoned or shut-in wells may be unknown
25 due to inadequate or missing data or poor

1 record-keeping."

2 The Final EIR/EIS (reading):

3 ". . . states that there are no active
4 wells, but 15 known inactive gas or oil
5 wells along the proposed Alternative 4,
6 (4A . . .) project alignment."

7 Known or unknown gas -- oil and gas well or --
8 and water wells in the path of the tunnels have the
9 potential to impact environment from the construction
10 Project.

11 Potential impacts for the tunnel include:

12 Tunnel con -- tunnel construction; disturbance of
13 surrounding soils; or boring vibrations damaging or
14 rupturing seals in nearby abandoned, inactive or active
15 oil or gas wells; striking an abandoned gas well, oil
16 well, or water well whose location is unknown or is
17 improperly located; damage should the boring tunnel
18 machine encounter a known or unknown location, bringing
19 the tunneling machine to the surface for needed
20 repairs; well modification done to the 15 known and
21 active wells that allow for the tunnel construction
22 while maintaining the well seals; ineffective
23 reabandonment of oil and gas wells that allow migration
24 of natural gases or saline water into shallow
25 groundwater aquifer contaminating fresh water supply or

1 create a flammable or explosive buildup of natural gas;
2 subsurface excavations define a known or unknown well.

3 All these activities have a potential to cause
4 significant environmental impacts, including
5 degradation of water quality if proper monitoring and
6 mitigation measures aren't implemented.

7 The WaterFix permit condition should require:

8 Monitoring and mitigating measures to address
9 the potential environmental impacts from tunneling
10 through oil and gas fields, including their own setback
11 distance from tunnel boring needing to maintain well
12 seals and plugs;

13 Wells within the setback should be evaluated
14 and modified, if needed;

15 Methods to modify the known 15 inactive wells,
16 or any other well, to allow for the tunnel
17 construction, ensure long-term integrity of the seals
18 and plugs;

19 Methods of any well work or surface excavation
20 to cut off and remove the well casing below the base of
21 the tunnels at depths of approximately 160 feet;

22 Methods for testing the remaining well plugs
23 and below hole seals to ensure the wells continue to be
24 properly abandoned;

25 Methods for resealing any well that is found

1 to be improperly plugged, seal or abandoned;

2 Monitoring the environmental impacts caused by
3 resealing or reabandoning the well;

4 Methods for -- and procedures should be
5 necessary to bring the boring machines to the surface
6 somewhere along the alignment that is at an unplanned
7 location.

8 WaterFix Project Permit conditions should
9 require:

10 The potential environmental impacts from
11 construction and operating the WaterFix tunnel in oil
12 and gas field to be properly monitored and mitigation
13 measures required to protect the environment, including
14 water quality during tunnel operations.

15 That's the end of my testimony.

16 MR. JACKSON: Thank you, Mr. Custis.

17 Mr. -- It's fairly clear to me that I'm going
18 to need a little more time to get both witnesses on.

19 CO-HEARING OFFICER DODUC: (Nodding head.)

20 MR. JACKSON: So . . .

21 CO-HEARING OFFICER DODUC: How much more time,
22 Mr. Jackson?

23 MR. JACKSON: Dr. Hankins, do you have an idea
24 of the amount of time?

25 WITNESS HANKINS: I would say, provided that

1 they've read or have -- will have read and accepted
2 testimony 272, I can keep my PowerPoint comments on the
3 shorter side, if that works.

4 CO-HEARING OFFICER DODUC: Um-hmm.

5 WITNESS HANKINS: Use that as a visual and
6 just hope that you'll have read everything else.

7 CO-HEARING OFFICER DODUC: Oh, yes.

8 CO-HEARING OFFICER MARCUS: Definitely.

9 MR. JACKSON: All right. Mr. Brobeck, would
10 you please summarize your testimony, sir.

11 WITNESS BROBECK: Thank you.

12 CO-HEARING OFFICER DODUC: So -- I'm sorry.

13 Before you begin, should I add another 10
14 minutes?

15 MR. JACKSON: 15?

16 CO-HEARING OFFICER DODUC: 15. So we'll make
17 it 25 minutes.

18 WITNESS BROBECK: I'm a Water Policy Analyst
19 for AquAlliance. I've work closely with my Executive
20 Director for over 12 years.

21 I was appointed by Butte County Supervisor Kim
22 Yamaguchi to serve on the County Water Advisory
23 Committee.

24 I participated in the creation of the Northern
25 Sacramento Valley Integrated Regional Water Management

1 Plan.

2 Over the years, AquAlliance has communicated
3 with and occasionally challenged Senior NorthState
4 Irrigation Districts that are rapidly developing
5 groundwater extraction infrastructure while being
6 willing sellers of Sacramento Valley water to Junior
7 Districts South of Delta.

8 The WaterFix is intended to eliminate certain
9 constraints on Delta exports of the Sacramento River
10 water to meet inflexible and increasing demands South
11 of Delta.

12 Surface water marketers located in the
13 Sacramento Valley are developing groundwater
14 infrastructure to facilitate so-called water supply
15 flexibility through conjunctive use and groundwater
16 substitution water sales.

17 Disrupting a balanced aquifer system
18 eliminates tributary flow that provides critical
19 spawning and rearing habitat for anadromous fish in the
20 Sacramento Valley.

21 Disrupting a balanced aquifer system
22 eliminates the long-term health of riparian vegetation
23 and wetland species commonly associated with
24 maintaining a minimum range of groundwater levels.

25 Disrupting a balanced aquifer system will

1 extirpate residual Valley Oak groves from their Refuge
2 in Sacramento Valley, which is the source of the water
3 that would fill the tunnels.

4 And disrupting a balanced aquifer threatens
5 the groundwater-dependent urban forest shade that we
6 need in the Sacramento Valley to endure the blistering
7 summer heat.

8 Groundwater and streamflow.

9 Migratory anadromous fish have been extirpated
10 from the Southern Central Valley due to faulty water
11 management. These large charismatic migratory fish are
12 keystone ecological species that are equally important
13 to terrestrial and aquatic ecosystems.

14 The failure of adult anadromous fish to thrive
15 and return to their spawning reach is depriving forests
16 of essential micronutrients and forest animals of
17 seasonal nutritional pulses.

18 Salmon have been deprived of most of the
19 Central Valley mountain spawning streams. Fish
20 hatcheries are struggling to mimic the spawning cycle
21 of these large animals. And during the past few years
22 the role of rearing habitat has caught the attention of
23 fishery experts.

24 Artificial floodplain rearing habitat
25 experiments have some success, but the role of small

1 tributaries has been largely neglected.

2 These historically perennial streams have been
3 rendered intermittent as base flow is reduced by
4 declining groundwater levels resulting from increased
5 demand.

6 Smaller tributary streams in the Sacramento
7 Valley are important in the life cycle of Salmon.

8 According to Dr. Paul Maslin, quote:

9 "Non-natal rearing of Juvenile
10 Chinook Salmon was documented in several
11 intermittent tributaries of the
12 Sacramento River. The data suggests that
13 Juvenile Chinook rearing in the
14 tributaries grew faster and were heavier
15 for their length than those who live in
16 the main stem."

17 CO-HEARING OFFICER DODUC: Mr. Brobeck.

18 WITNESS BROBECK: Yes.

19 CO-HEARING OFFICER DODUC: If you could hold
20 on a second.

21 Miss Ansley.

22 MS. ANSLEY: Yes.

23 I'd like to say that I -- I hope I'm familiar
24 with Mr. Brobeck's but much of the testimony he just
25 gave in the last two minutes are straying from his

1 direct.

2 I'm looking here. I don't see -- I see the --
3 as much -- I see one sentence on the rearing habitat.
4 I don't see testimony he was just providing on rearing
5 habitat or micronutrients, keystone species.

6 And he just made a lengthy quote, and I
7 believe he said it was from McMannis, an article from
8 McMannis, but I don't see that quote in his testimony.

9 WITNESS BROBECK: Dr. Maslin.

10 MS. ANSLEY: Maslin.

11 And I'm hoping he point me to that quote.

12 But also his earlier topics seem to be off
13 the -- in way more detailed to environmental impact
14 than what he has in his testimonial.

15 CO-HEARING OFFICER DODUC: Mr. Brobeck, could
16 you direct us to your testimony, and where Miss Ansley
17 might find the information which you just provided
18 orally?

19 WITNESS BROBECK: If -- If it's not found in
20 the written testimony, then I -- I guess it's not in
21 the written testimony.

22 As I attempted to summarize it, I -- I changed
23 some of the language in, I guess perhaps -- The item on
24 micronutrients for forest species perhaps was not
25 included in the written testimony, so I apologize.

1 And . . .

2 CO-HEARING OFFICER DODUC: It's perfectly find
3 to change some of the wording as long as you don't
4 expand upon the information that is in your written
5 testimony.

6 WITNESS BROBECK: I -- I understand that.
7 And -- And I apologize if I've done so. And if it
8 needs to be stricken, then -- then -- then so be it.

9 MR. JACKSON: I don't think anybody talked
10 about striking it.

11 It would --

12 CO-HEARING OFFICER DODUC: I think Miss Ansley
13 is objecting to it.

14 And her next step, should Mr. Brobeck be
15 unable to point to where in his written testimony she
16 might find those sections, I assume she will then move
17 to strike.

18 MS. ANSLEY: I -- I -- I am trying to look. I
19 mean, obviously, it's hard when somebody is speaking
20 and you're catching up.

21 But I believe -- and I'm looking at the very
22 rough, of course -- that I would move to strike --
23 There was testimony on micronutrients and pulses of
24 micronutrients, I believe, for forests.

25 There was --

1 CO-HEARING OFFICER DODUC: So let's stop
2 there.

3 Mr. Brobeck --

4 WITNESS BROBECK: Hmm?

5 CO-HEARING OFFICER DODUC: -- micronutrients.
6 Is that discussed in your written testimony?

7 WITNESS BROBECK: I don't think so.

8 CO-HEARING OFFICER DODUC: Okay. So we will
9 strike that.

10 WITNESS BROBECK: Um-hmm.

11 But certainly the -- the quote from
12 Dr. Maslin . . .

13 (Witness Vlamis confers with Witness Brobeck.)

14 MS. ANSLEY: I do see a quote from Dr. Maslin
15 on -- and I'm not sure it's the same quote, I'm trying
16 to read the rough at the same time -- on Pages 4 and 5.

17 CO-HEARING OFFICER DODUC: Miss Ansley, you're
18 not close enough to the microphone.

19 MS. ANSLEY: I apologize about that.

20 But I do see a quote from Mr. Maslin on
21 Page 4. I'm just trying to make sure that we are
22 within the bounds of the direct testimony and not
23 adding significant biological testimony.

24 So if that was the same quote, I am fine to
25 withdraw an objection to that.

1 WITNESS BROBECK: Right.

2 MS. ANSLEY: And then . . .

3 WITNESS BROBECK: Are -- Are you reviewing
4 still?

5 MS. ANSLEY: I was trying to quickly review
6 just for cross topics.

7 I do think it's a little bit too -- more here
8 on intermittent streams, but I'm happy to withdraw that
9 objection as long as, going forward, we try to stick to
10 the bounds of the written testimony.

11 CO-HEARING OFFICER DODUC: Yes, Mr. Brobeck
12 will stick to the bounds of his written testimony.

13 MR. JACKSON: So far, we're agreed that he's
14 within that range.

15 CO-HEARING OFFICER DODUC: Except for that one
16 about micronutrients.

17 MR. JACKSON: Micronutrients.

18 MS. ANSLEY: Yes. I can rest with that.
19 Thank you.

20 WITNESS BROBECK: And I apologize to my -- the
21 reviewer that I -- I probably rearranged in order to
22 speak this in a fashion that was . . . reedited for --
23 for -- hopefully for your benefit to understand my
24 points.

25 Intermittent stream tributaries in the

1 Sacramento River were wetter longer prior to the
2 development of groundwater extraction infrastructure.
3 According to Dan Wendell, a Nature Conservancy
4 spokesman, quote:

5 "The Sacramento Valley still has
6 water levels that are fairly shallow.
7 There are numerous perennial streams and
8 healthy ecosystems. However, since the
9 1940s, groundwater discharge to streams
10 in this area has decreased by about
11 600,000 acre-feet per year due to
12 groundwater pumping, and it's going to
13 decrease an additional 600,000 acre-feet
14 in the coming years under 2009 status quo
15 conditions due to the time it takes
16 effects of groundwater pumping to reach
17 streams."

18 Groundwater-dependent ecosystems. The fix is
19 a giant project that requires detailed analysis of the
20 source of water, the Sacramento Valley Watershed.

21 In 2007, water experts from the Department of
22 Water Resources and Northern California Water
23 Association, and elsewhere, drafted the Sacramento
24 Valley Water Resource Monitoring, Data Collection and
25 Evaluation Framework.

1 In the section titled "Habitat," the framework
2 explains (reading):

3 "The long-term health of riparian
4 vegetation, wetland species and a number
5 of other native habitat are commonly
6 associated with maintaining a minimum
7 range of groundwater levels and an
8 appropriate level of interaction between
9 surface water and groundwater resources."

10 The lowering of groundwater levels due to the
11 interception of groundwater underflow surface water
12 systems due to the increased groundwater extraction
13 associated with water management programs have the
14 potential to impact the native habitat areas.

15 (Reading):

16 "In order to identify potential
17 habitat impacts associated with . . .
18 changes in water management practices, a
19 program-specific network of shallow
20 monitor monitoring wells must be
21 developed to detect changes in water
22 levels over the shallowest portion of the
23 aquifer."

24 These monitoring requirements known by experts
25 for over 10 years have not been implemented anywhere in

1 the area of origin of the source water that would fill
2 the fixed tunnels.

3 The preservation of groundwater-dependent
4 ecosystems located in the Sacramento River Basin
5 requires the prerequisite groundwater management
6 monitoring protocol be implemented prior to the
7 elimination of transfer constraints.

8 Valley Oak survival.

9 Valley Oak trees were once a dominant feature
10 of Central Valley landscapes. Valley Oak groves are a
11 long-neglected but major groundwater-dependent
12 ecosystem.

13 Declining groundwater levels and land use
14 conversion have eliminated the majority of Valley Oak
15 woodlands.

16 According to the U.S. Forest Service, Valley
17 Oaks have several vertical roots that tap groundwater
18 and pull the water up to shallow horizontal root
19 branches. Vertical root depth have been measured as
20 deep as 80 feet in some individuals, but best growth is
21 attained when water levels are about 33 feet below the
22 surface. These forests extended up to 5 miles on each
23 side of the rivers and streams.

24 The existing demand on Sacramento Valley
25 groundwater has created a downward trend in groundwater

1 levels in many areas. The increased demand on
2 groundwater envisioned in California water policies
3 that moved Sacramento Valley water South of the Delta
4 threatens this keystone groundwater-dependent species.

5 Urban forest survival.

6 I've been living in the Sacramento Valley
7 Watershed for 45 years and I know how important shade
8 is during the scorching summer season.

9 The City of Chico was established in an area
10 with abundant naturally hydrated trees. Once
11 established, the deep root urban forests of Chico needs
12 no supplemental irrigation because it taps the
13 shallowest portion of the aquifer system.

14 The air is significantly cooler in parts of
15 Chico that have mature urban forest cover compared with
16 areas like shopping malls that have little, if any,
17 tree canopy.

18 The urban forest provides energy conservation
19 and climate control. Trees intercept sunlight before
20 it reaches buildings that radiate heat.

21 Trees provide shade and cooling for both
22 outside and inside of buildings they cover, thereby
23 reducing the energy required for air conditioning.

24 Urban tree canopy results and air quality
25 improvements that -- can help local governments in

1 meeting Federal Clean Air Standards because trees are
2 capable of removing a variety of pollutants from the
3 air.

4 Butte County is a leader in developing a
5 groundwater monitoring system and establishing
6 groundwater basin management objectives, BMOs.

7 As the Sustainable Groundwater Management Act
8 plods towards implementation, it's unclear the
9 management plans will include stipulations to protect
10 groundwater-dependent ecosystems.

11 There have been no comprehensive aquifer level
12 monitoring that works established in the shallowest
13 portion of the system, as suggested by DWR in the 2006
14 framework.

15 Many water wells in my region are below
16 historic low elevation and have failed to comply with
17 Butte County BMO levels. These monitoring objectives
18 have no enforcement mechanisms.

19 In conclusion, existing demands on Sacramento
20 Valley aquifer system are creating an unsustainable
21 water imbalance that will impact streamflow that
22 sustains fisheries, groundwater-dependent urban
23 forests, remnant Valley Oak groves, and other
24 groundwater-dependent ecosystems.

25 The WaterFix will require sources of reliable

1 supply water to fill the tunnels. And the buzzword for
2 where this water will come from is conjunctive use.

3 Conjunctive use of groundwater, an already
4 depleted resource, has been used as a tool of
5 flexibility by surface water users and is a primary
6 management technique employed in groundwater
7 substitution transfer sales.

8 By bypassing the core of the Delta,
9 WaterFix -- By bypassing the core of the Delta, the
10 WaterFix promises to reduce fishery constraints on
11 Delta exports and thereby increase the demand on
12 Sacramento Valley water systems, including aquifer
13 systems.

14 Implementing the WaterFix will increase
15 opportunities for Irrigation Districts to participate
16 in groundwater substitution water sales.

17 Creating water delivery infrastructure prior
18 to implementing prerequisite shallow aquifer baseline
19 and monitoring infrastructure can result in damage to
20 groundwater-dependent ecosystems.

21 The preservation of these ecosystems located
22 in the Sacramento River Basin requires the prerequisite
23 groundwater management monitoring protocol be
24 implemented prior to the elimination of these
25 constraints.

1 AquAlliance and its members are deeply
2 concerned about water transfers supplying significant
3 water for the WaterFix.

4 Thank you for listening.

5 MR. JACKSON: Thank you, Mr. Brobeck.

6 Dr. Hankins, would you summarize your
7 testimony, sir.

8 WITNESS HANKINS: Yes. Thank you.

9 May I have Exhibit AQUA-274, please.

10 (Exhibit displayed on screen.)

11 WITNESS HANKINS: Thank you.

12 As I had indicated, most of the testimony --
13 Well, the testimony I provide is based on what's
14 written in testimony AQUA-272 as well.

15 In the interest of time, defer to that, but
16 what I hope to provide you guys with a different
17 insight to looking at the Delta in a way that maybe
18 hasn't ever been presented to you all before.

19 I am Miwko. In English, we refer to it as
20 Plains Miwok. And I'm a traditional culture
21 practitioner and a speaker of our language.

22 I'd like to acknowledge that where we're
23 meeting at today is -- was once a vibrant village site.
24 This building sits on that.

25 And as we pulled in today, I wanted to

1 acknowledge that I see in this landscape around us
2 still the landscape and the story of our people here in
3 this place.

4 One of our creation animals, the Falcon, was
5 calling out to us today. And I think that's a really
6 important sign about what decisions are being made here
7 and, hopefully, that will help to guide you as well.

8 And the first slide here takes us to a place
9 that's very important to us, and most of us who live in
10 the Sacramento area and the valley recognize this
11 place. In our language, we call it Wolwonja and
12 Ujumpile, and that is in English Mount Diablo.

13 Since time immemorial, we have lived in this
14 place in the shadow of this mountain. At various
15 points in the geologic history of this landscape, we've
16 been on the west side of it, out past the Golden Gate,
17 and to our current place, which is our homeland. And
18 it's a dynamic landscape.

19 As a kid growing up, I had very intimate
20 relationship with this landscape, having spent numerous
21 days, years, first 25 years of my life practically on
22 the banks of the Clifton Court Forebay at a place that
23 we call Kings island, which was a place where I grew
24 up.

25 Spending time in that water, I jokingly say

1 the reason why I am the way it is, is because I drink
2 that water even though people told me not to drink
3 because it's polluted.

4 But that water's very special to me. And
5 that's where I want to begin.

6 Next slide, please.

7 (Exhibit displayed on screen.)

8 WITNESS HANKINS: This map shows -- It's a
9 draft map of ethnography, a map based on ethnography
10 that I've been working on that is pulling together our
11 understanding of what our relationship is within the
12 landscape.

13 The dark gray area represents the areas
14 that -- that are traditionally occupied as our
15 homelands in recent timeframe.

16 The light gray area represents what I'll refer
17 to as our storyscape or the place where our traditional
18 law comes from.

19 Within this are different symbols. The dots
20 that are represented there represent known village
21 sites. The triangles represent story places, the
22 places where our law begins at.

23 I'd like to acknowledge that some of these
24 places within the Delta are places where our water
25 story begins, too. I'm going all the way back to

1 Ujumpile, which was in the first slide there.

2 This is really important to think about that
3 because if we think about the context of this
4 particular project, it entirely exists within our
5 ancestral territories, from Natomas Basin all the way
6 down to the Tuolumne River.

7 It's all within our ancestral territory
8 storyscape. Yet, we are a piece of the analysis that
9 was not engaged in the development of this particular
10 project, which I think is really important to
11 highlight.

12 Next slide, please.

13 (Exhibit displayed on screen.)

14 WITNESS HANKINS: Throughout our landscape are
15 numerous language areas which I thought I would share
16 with you just to show you the -- the places that maybe
17 some of you are familiar with, the names that we hear
18 sometimes, like "Mokelumne" as a river is named after
19 our places.

20 And these places have names. They have
21 meanings behind them. Why do they exist?

22 I bring this out because, as I've written in
23 the testimony, text 272, some of these -- most of these
24 places have significant names in terms of resources
25 that are found there.

1 For instance, if we think about the area on
2 the westside in the -- in the dialect area of Ocakumne,
3 which shows kind of turquoise here on this map.

4 Within Ocakumne is a place Cikumne. Chiku
5 is -- is the place that that village is named after,
6 the place of the Minnow. The Minnow that's being
7 referenced is a highly endangered fish that is the
8 Delta Smelt. We have a relationship with this fish.

9 Mokelumne is named "the place of the fish
10 net." Moke means fish net.

11 That fish net was used and should be used to
12 harvest the spring-run Chinook Salmon. We have a
13 relationship with those animals.

14 Most all the names that are up here have their
15 relationships that are there and which I want to
16 highlight to you.

17 In thinking about this, it brings me to think
18 about the way that, in this society, we tend to think
19 about endangered species and environmental justice.

20 And what I hope to maybe leave you guys with
21 today is an understanding of what I'll call ecocultural
22 equality, which is recognizing that it's not just about
23 justice but that we are one species living in a
24 landscape that we have responsibility for other
25 species, which I don't think that this analysis has

1 allowed us to fully understand.

2 Next slide, please.

3 (Exhibit displayed on screen.)

4 WITNESS HANKINS: In Miwko tradition, when
5 we're born into this world, we're born into two -- one
6 of two moieties, a way of relating to the landscape.

7 And this drawing pastel is depicting our
8 moieties, water and land.

9 I'm of the water. That's who I am born for.

10 And that bears certain responsibility, which
11 is why I suppose I'm here today to share this with you,
12 to get you to hopefully think about what the extension
13 of that is as -- in terms of public trust, in terms of
14 trust responsibilities to tribes and to our relations
15 in the world.

16 This -- I referenced law earlier. For us,
17 within this landscape, we see ourselves interconnected
18 to the landscape. We don't exist separate from it.
19 The species that are here are interrelated to us. We
20 depend on them; they depend on us.

21 And everything that we do, every action we do,
22 it's kind of like -- I'm going to divert a little bit
23 maybe away from the concepts I put in the written
24 testimony.

25 But I think about Einstein quite a bit. And I

1 think about how the conservation of energy, that for
2 every action, there's equal opposite reaction.

3 And that's an indigenous philosophy, that for
4 everything that we do, every step we take, every action
5 we take, there's a reaction in response to it.

6 And I think about that in respect to this,
7 what we're looking at, in terms of the WaterFix, is:
8 What is the positive reaction that will come out of
9 that? What good is that coming for us?

10 Our law is very important. It's encoded in
11 our landscape; it's encoded in our story.

12 Next slide, please.

13 (Exhibit displayed on screen.)

14 WITNESS HANKINS: Actually a good segue right
15 into that slide; isn't it? I forgot it was there.

16 In our story, we have the beginning of a place
17 where the first water comes out of the mountain that's
18 shown in this landscape picture on the right. And it
19 flows from this landscape down to a series of springs,
20 from a series of springs into a creek, into this area
21 of vernal pools that traditionally flowed out and
22 joined into the San Joaquin River.

23 This is one of the sources of water. It's not
24 the only source of water, but it's one of the stories
25 that we have about water in our landscape. It's been

1 highly impacted, primarily by water resources within
2 the State of California.

3 The development of the State Water Project and
4 Clifton Court Forebay truncated the ability for that
5 water to flow from our springs directly into the vernal
6 pools and out into the Delta. In fact, the Clifton
7 Court Forebay largely eradicated the Vernal pools that
8 this watershed drained into.

9 We have the State Water Project, the Federal
10 Water Project, the CVP, the construction of
11 Los Vaqueros Reservoir. All had a huge impact of this.

12 And we -- we culturally bear a greater brunt
13 of this, I think: Huge impacts to our storyscape, to
14 us as individuals, to our responsibilities to be
15 stewards of this place.

16 Our stories also talk about the species that
17 we find in these different places . In the lower
18 right -- lower left-hand picture, we see the White
19 Running Geese flying over the wetlands at the Consumnes
20 River Preserve. We have places that talk about where
21 we expect to see these species and what their
22 responsibility is to us and what our responsibility is
23 to them.

24 So this landscape provides a lot to us, tells
25 us how we should behave in this landscape, how we

1 should steward it and how we should interact with
2 species that are there and what our responsibilities
3 are to them. That's largely encoded in our traditional
4 ecological knowledge. And I won't unpackage that here
5 because it's way too deep to get into for our purposes.

6 If you don't mind, can we go on the next
7 slide.

8 (Exhibit displayed on screen.)

9 WITNESS HANKINS: In our concept, when we
10 think about the Delta, what is the legal Delta that the
11 State of California recognizes is too limited.

12 In our view, the Delta begins at the crest of
13 the Sierras, and as that water drop begins to filter
14 across the landscape into the groundwater, into the
15 streams and meadows, that's where it begins at. And
16 it's a -- To us, the Delta is something that extends
17 from -- from the Sierra all the way out to the ocean.

18 And if we look at this landscape -- And what
19 I've shown here in these slides is the high country
20 from the Tahoe area to the chaparral bands that
21 surround the Central Valley, the wetlands, the Vernal
22 pools, the Oak woodlands, riparian forest and the
23 ocean. And all of that's interconnected and
24 interdependent on one another. As I said, it's all
25 interdependent.

1 And that interdependent nature means that what
2 happens in the ocean affects the mountains, and what
3 happens in the mountains affects what goes on in the
4 oceans.

5 And I think this is something that we
6 really -- I'll get -- I'll get to this in a moment.

7 Next slide, please.

8 (Exhibit displayed on screen.)

9 WITNESS HANKINS: We have kinship
10 relationships that are recognized within our -- our
11 understanding of the world. And what I mean by that is
12 that we have specific relationships through our
13 moieties to have responsibility to certain species.

14 Here, I just give some example of some of the
15 wetland species that -- that are impacted -- would be
16 impacted by water resources here in the state,
17 including common species like the Great Egret, to the
18 Sandhill Cranes, the Chinook Salmon, and the California
19 Tiger Salamander.

20 If I can, for a moment, I think about some of
21 these species, the Sandhill Crane, the Salmon, and the
22 Tiger Salamanders, they're all rare species. And we
23 sometimes think about rare species as, you know, oh,
24 what can we do about it?

25 Anthropologist Deborah Bird Rose, who works in

1 Australia, in her book Wild Dog Dreaming, talks about
2 the indigenous relationship between plants and animals
3 in terms of the endangered species.

4 And she basically says that -- that, for us,
5 it's encoded because it's tactile and is embedded in
6 our creation, and it creates our ethics and
7 accountability to species.

8 So, for instance, when I go out and fish for
9 these three Chinook Salmon that are here on this
10 tailgate, these fish are -- are part of who I am, and
11 I'm accepting responsibility for what's been taken
12 there.

13 Endangered -- Indigenous people, just like
14 these animals, for the most part, have faced extinction
15 just like them. The history of California has
16 reflected on that. We don't think about that too much,
17 but it's an important point to make.

18 Next slide, please.

19 (Exhibit displayed on screen.)

20 WITNESS HANKINS: Our landscape and our
21 understanding of the landscape is one of change, and
22 we've seen previous examples of this testimony earlier
23 today.

24 But, here, just showing us the 15,000-year
25 sequence of the evolution of the landscape to create

1 the landscape that we know today as the Delta. And our
2 story documents this history, that changes happen.

3 And I think about that in relationship to the
4 knowledge that's there, the past droughts, the --

5 (Timer rings.)

6 WITNESS HANKINS: -- sea-level rise --

7 I'm out of time?

8 CO-HEARING OFFICER DODUC: How much more
9 additional time do you need?

10 WITNESS HANKINS: Just a few more minutes --

11 CO-HEARING OFFICER DODUC: All right

12 WITNESS HANKINS: -- if you don't mind. Maybe
13 five more, something like that?

14 CO-HEARING OFFICER DODUC: Okay. Five is
15 good.

16 WITNESS HANKINS: Yeah.

17 So my point is, is that that sea-level rise
18 will continue to happen. We'll continue to see
19 droughts. And the analysis of that in this particular
20 document for the WaterFix in my mind is too
21 short-sided.

22 We plan things for multiple generations out,
23 three to seven generations out. And in the context of
24 this document, I believe it goes to 2016 in terms of
25 the modeling.

1 And I always think about this. You know, I'm
2 hoping to still be alive in 2060. So that's not
3 long-term planning. That's short-sidedness in my mind.

4 Next slide, please.

5 (Exhibit displayed on screen.)

6 WITNESS HANKINS: The Delta is a dynamic
7 system.

8 This is showing us a -- saline intrusion maps
9 from 1921 to 1943. And, culturally, we see this as a
10 very important process, that the salinity comes in. It
11 cleans the landscape. It brings new species in; it
12 brings nutrients in to this landscape to enrich it and
13 keep it productive.

14 And we see this as a process that is really
15 needed in this landscape, despite that way water
16 management happens today.

17 Next slide, please.

18 (Exhibit displayed on screen.)

19 WITNESS HANKINS: We have an ongoing
20 relationship with the landscape, traditional cultural
21 practices. We maintain access for basketry, plants,
22 medicinal plants, other fiber plants. We go out
23 fishing, hunting.

24 And I think about this, and I'm getting choked
25 up here for a moment, because I think about my kids.

1 So on the picture on the left, my -- my
2 youngest daughter, who's now eight, she was six years
3 old when I took this picture on the Sac, fishing for
4 Salmon, and she caught her first Salmon out there on
5 the Sac.

6 To me, that is a continuation of our
7 relationship with these species. This is our
8 responsibility.

9 When I was younger, I wouldn't have ever
10 thought to fish for Salmon because I would have thought
11 "Oh, they're too rare."

12 But then I thought of my elders telling me,
13 "Oh, you need to go and get collect things, because if
14 they're rare, you need to collect them because then you
15 show your relationship and your responsibilities to
16 them and they'll increase."

17 So that's why we go out fishing. We don't go
18 out for a bunch of them, but just a few. But it's
19 instilling that for the next generation.

20 Next slide, please.

21 (Exhibit displayed on screen.)

22 WITNESS HANKINS: The impacts to traditional
23 cultural properties and traditional cultural landscapes
24 has not been adequately analyzed in the environmental
25 analysis. And I wrote this in my comments on the plan

1 and was dismissed in the responses.

2 I bring this to your attention because, as I
3 mentioned, I have great familiarity with the area
4 around Clifton Court Forebay and other areas along the
5 Project route.

6 We collect materials today in the footprint of
7 the area where this Project will happen. The direct
8 impacts. I'm not talking about indirect; I'm not
9 talking about cumulative. We have a relationship with
10 these places.

11 The very first basket I ever made was made
12 from Willows and Sedges collected from the -- the in --
13 the place where the water will come into Clifton Court
14 Forebay.

15 Those stars on the map show some of the
16 resources that are found in and around there, in the
17 field where this will happen, not analyzed in the
18 environmental documents.

19 Same thing along the intakes off the
20 Sacramento River near Stone Lakes National Wildlife
21 Refuge.

22 My point is, is that under National Historic
23 Preservation Act, these qualify as traditional cultural
24 properties and are part of our traditional cultural
25 landscape.

1 Next slide, please.

2 (Exhibit displayed on screen.)

3 WITNESS HANKINS: We have trust
4 responsibilities that need to be upheld.

5 In the State of California, we're kind of a
6 unique state in that we don't have treaty tribes. Yet,
7 we never gave up our rights to the land. We never gave
8 up our rights to the water. We maintain our preemptive
9 rights to the water.

10 We have Federal case law that upholds our
11 rights to the water through Winters Doctrine, recently
12 groundwater rights, recognized through the Agua
13 Caliente case.

14 And we maintain our right to steward that
15 through self-determination, particularly under Federal
16 law, Public 93 -- Public Law 936.38.

17 And I did not include this in here but
18 Executive Order B-10-11, which is Governor Jerry
19 Brown's Executive Order saying basically the same
20 thing, is that the State of California will help tribes
21 to implement their self-determination. So I think it's
22 a really important thing to recognize.

23 We also have State Fish & Game Code 16000
24 which also supports that tribes have the right to
25 manage and steward their resources in that way.

1 Next slide, please.

2 (Exhibit displayed on screen.)

3 WITNESS HANKINS: In terms of the species
4 analysis in the plan, I counted up, there were 56
5 species that were addressed.

6 And my point of this is that a significant
7 number of these, all the species that are on this list.
8 26 I think are on -- 24, which I've highlighted here on
9 the slide, are all cultural species. We have
10 responsibilities to these ones.

11 These are just the ones that are listed here.
12 But I would add that there are a bunch of species that
13 aren't included in this, including the Whales out --
14 you know, the Gray Whales and the Killer Whales, and so
15 forth, which obviously feed on -- at least the Killer
16 Whales will be feeding on some of the Salmon. Wouldn't
17 the environmental analysis, shouldn't that include
18 that? Not included.

19 So we have upland species and oceanic species
20 that should be part of this.

21 Next slide, please.

22 (Exhibit displayed on screen.)

23 WITNESS HANKINS: To think about the
24 environmental impact analysis from an indigenous point
25 of view, there are tools that are out there to do this

1 analysis.

2 In New Zealand, a civil engineer, Kepa Morgan
3 and others, worked for develop what they call the
4 mauriOmeter which addresses the ecosystem, the
5 cultural, the community and economic analysis of -- of
6 a project.

7 And I ran this heuristic model for the
8 WaterFix. And what we see is that the WaterFix does
9 not get us to something that achieves a sustainability
10 for the ecosystem, the cultural values, the community
11 or the economic side. It's 180 degrees opposite.

12 Whereas, if we were actually to focus on
13 restoring the Delta and maintaining the landscape as it
14 has been and provided to be self-sustaining and
15 resilient, then it would be on the positive side;
16 right?

17 And I'll leave with the next slide.

18 (Exhibit displayed on screen.)

19 WITNESS HANKINS: This little quote to reflect
20 on.

21 I think about the role of indigenous people
22 and I always come back to this quote by Hobbs and
23 others in 2011 (reading):

24 ". . . for many parts of the world, in
25 aiming to restore to a 'pristine' or

1 'natural' state, managers both ignore
2 prior human impact and deny human
3 societies -- indigenous human societies
4 their rightful place as effective
5 ecosystem managers."

6 We're here. We want to be part of stewarding
7 our resources. And we need to be given that
8 opportunity.

9 In this testimony, I hope that I've made it
10 clear that the Applicants have failed to address both
11 public and tribal trust responsibilities to the
12 resources, and our self-determination rights.

13 And I'll leave with that.

14 Thank you.

15 MR. JACKSON: May I ask one question?

16 CO-HEARING OFFICER DODUC: Um-hmm.

17 MR. JACKSON: Dr. Hankins, the first slide
18 talked about the California Indian Water Commission?

19 WITNESS HANKINS: Right.

20 MR. JACKSON: What is that?

21 WITNESS HANKINS: The California Indian Water
22 Commission is a self-determination organ -- intertribal
23 organization established under Public Law 936.38.

24 I'm the President of that organization, which
25 gives us the status of a Federally recognized tribe

1 under Federal law. So we're treated as a tribe.

2 And our primary objectives is not about
3 grabbing water for people to use, per se, but more
4 about maintaining the traditional responsibilities to
5 the water, as I described today in my testimony.

6 MR. JACKSON: And when you say it's federally
7 recognized, how does that relate to the Winters Act you
8 just talked about?

9 WITNESS HANKINS: Right.

10 So, in terms of the -- of the Winters
11 Doctrine, the -- the connection is that, as a federally
12 recognized tribe or federally recognized tribal
13 organization, Winters -- Winters Doctrine allows for
14 the surface water rights to be protected and preserved
15 for traditional use.

16 Is that what you're asking?

17 MR. JACKSON: Yes.

18 In other words, under that Federal act, you
19 don't have to consume the water --

20 WITNESS HANKINS: Right.

21 MR. JACKSON: -- to use the water.

22 WITNESS HANKINS: Right. That's exactly
23 right.

24 So Winters Doctrine --

25 CO-HEARING OFFICER DODUC: Hold on, please.

1 WITNESS HANKINS: Oh. Sorry.

2 CO-HEARING OFFICER DODUC: Miss Ansley.

3 MS. ANSLEY: Yes.

4 I mean, I'd like to be very respectful here,
5 but I would object here that this cross-examination by
6 his own witness is now straying.

7 I'm looking at where the Winters vs. United
8 States case is cited here. It's now straying into a
9 further explanation of Federal recognition in water
10 rights and what they -- I thought they said Winters
11 Act -- but what that Act might curtail. And I think
12 that's not appropriate at this time in the case in
13 chief.

14 If someone raises that in cross, obviously
15 they can redirect on whatever subjects come up.

16 And so that would be my one thing. We seem to
17 be moving very far afield all of a sudden with multiple
18 questions.

19 MR. JACKSON: I was -- you know, if -- if we
20 don't want the question now, that's fine.

21 I was trying to let both the Board and DWR and
22 the Bureau understand that these facts result in
23 certain conclusions. And I don't want to blindsides
24 anybody.

25 CO-HEARING OFFICER DODUC: As long as those

1 conclusions are in his testimony, you may go there.

2 Is it in his testimony?

3 MR. JACKSON: I don't believe it is.

4 CO-HEARING OFFICER DODUC: Then --

5 MR. JACKSON: Well, maybe.

6 WITNESS HANKINS: Well, so the -- I do cite
7 the laws. And I am assuming that, based on
8 incorporation of those laws and mention of them, that
9 what those laws infer, including that it is
10 environmental water is where you were going with this,
11 that is what is stated in the law, in the case --

12 CO-HEARING OFFICER DODUC: Miss Ansley.

13 WITNESS HANKINS: -- that is there.

14 MS. ANSLEY: For the record, I'd just like to
15 add: Calls for a legal conclusion.

16 CO-HEARING OFFICER DODUC: All right.

17 Let's -- Let's stop, Mr. Jackson.

18 MR. JACKSON: All right.

19 Thank you.

20 CO-HEARING OFFICER DODUC: Let me check with
21 the court reporter. How are you doing? You're okay?

22 THE REPORTER: (Thumbs up.)

23 CO-HEARING OFFICER DODUC: All right. Then
24 let's continue with cross-examination so that we will
25 get through this panel before our lunch break so they

1 don't have to return.

2 Miss Ansley.

3 MS. ANSLEY: And I would just -- For open
4 disclosure, up front, I do not have questions for
5 Dr. Hankins, and I only have one or two questions for
6 Mr. Brobeck.

7 So just if that helps in any planning.

8 CO-HEARING OFFICER DODUC: Mr. Keeling, how
9 about you? You are the only other cross-examiner.

10 MR. KEELING: I have questions -- I do have
11 questions for Dr. Hankins.

12 CO-HEARING OFFICER DODUC: All right. So
13 every -- So everyone stays there.

14 MR. KEELING: And Mr. Custis.

15 CO-HEARING OFFICER DODUC: So everyone stays.

16 MS. WOMACK: I might have questions for
17 Dr. Hankins.

18 CO-HEARING OFFICER DODUC: Everyone stays.

19 WITNESS HANKINS: Wishful thinking, huh?

20 MS. ANSLEY: Would you like the subjects of
21 cross?

22 CO-HEARING OFFICER DODUC: Please.

23 MS. ANSLEY: So, for Mr. Brobeck, I just have
24 some foundational questions regarding his experience
25 and expertise.

1 For Miss Vlamis, I only have a couple
2 questions regarding groundwater transfers and demand
3 for groundwater transfers.

4 The bulk of my questions, then, are for
5 Mr. Custis and . . . they follow very closely the
6 topics in his testimony, which were impacts to natural
7 gas fields, impacts to groundwater flow in the Delta,
8 and his second was. . . I believe he had further
9 testimony on groundwater substitution transfers.

10 And that's it.

11 CROSS-EXAMINATION BY

12 MS. ANSLEY: Mr. Brobeck, good morning.

13 My name is Jolie-Anne Ansley. I'm with the
14 Department of Water Resources.

15 I believe I spoke to you all in Part 1 as
16 well, except for Dr. Hankins, of course.

17 Mr. Brobeck, are you testifying here today as
18 an expert?

19 WITNESS BROBECK: I'm testifying as a
20 participant in -- in water policy in Butte County as --
21 as a member of the Butte County Water Commission and as
22 a participant in the Sacramento -- the Northern
23 Sacramento Valley Integrated Regional Water Management
24 Plan.

25 MS. ANSLEY: You are not here representing

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1 those entities today; are you?

2 WITNESS BROBECK: No, I'm not.

3 MS. ANSLEY: You're here representing
4 California Sportfishing Protection Alliance?

5 WITNESS BROBECK: No. I'm here representing
6 AquAlliance and -- and the members of AquAlliance.

7 MS. ANSLEY: I apologize. AquAlliance. Thank
8 you.

9 WITNESS BROBECK: I'm not at all offended by
10 being associated with the other organizations, but
11 thank you.

12 MS. ANSLEY: It's fine. Thank you for the
13 correction. I should remember there are three groups
14 within this total group.

15 Have you ever qualified as a witness -- an
16 expert witness in State Court?

17 WITNESS BROBECK: No.

18 MS. ANSLEY: Have you ever qualified as an
19 expert witness in Federal Court?

20 WITNESS BROBECK: No.

21 MS. ANSLEY: Do you have formal training in
22 biology?

23 WITNESS BROBECK: In -- In my college
24 education, I had a liberal arts training, so I took
25 some biology classes, but I'm -- I'm -- I don't claim

1 to be a -- a scientist.

2 MS. ANSLEY: Do you have formal training in
3 hydrology?

4 WITNESS BROBECK: No, ma'am.

5 MS. ANSLEY: Is it -- And this is pretty much
6 my last question here.

7 Is it your understanding that you have been
8 disclosed here today as an expert witness?

9 WITNESS BROBECK: Give me that question once
10 again.

11 MS. ANSLEY: Sure.

12 Is it your understanding that you've been
13 disclosed as an expert witness for AquAlliance?

14 WITNESS BROBECK: I . . . I . . . think I may
15 be termed an expert witness, yes.

16 And perhaps because of my -- my long history
17 in engaging in various commissions and committees in
18 Butte County. And my long tenure there and
19 participation in a lot of different land use projects
20 as well as procedures.

21 MS. ANSLEY: I think that's all my question
22 for you, Mr. Brobeck.

23 Thank you.

24 WITNESS BROBECK: You're welcome.

25 MS. ANSLEY: And I think I will move to

1 Miss Vlamis. Vlamis; right? Excuse me.

2 WITNESS VLAMIS: Yes.

3 It's Vlamis.

4 MS. ANSLEY: Vlamis.

5 WITNESS VLAMIS: Yes.

6 MS. ANSLEY: Got it.

7 MR. KEELING: It's an old spartan name.

8 MS. ANSLEY: Miss Vlamis, have you -- You are
9 here also disclosed as an expert witness; is that
10 correct?

11 WITNESS VLAMIS: Yes.

12 MS. ANSLEY: And have you qualified as an
13 expert witness in either State or Federal Court?

14 PROSPECTIVE JUROR: State Court.

15 MS. ANSLEY: And what proceeding was that in?

16 WITNESS VLAMIS: It was a proceeding in Chico
17 over a land use issue.

18 MS. ANSLEY: And it was -- And do you recall
19 the nature of the land issue or the legal issue at
20 stake?

21 WITNESS VLAMIS: Yes. By the City of Chico.

22 MS. ANSLEY: Was it a CEQA case?

23 WITNESS VLAMIS: No.

24 MS. ANSLEY: Do you recall what the case
25 involved?

1 WITNESS VLAMIS: It involved an acquisition of
2 property.

3 MS. ANSLEY: And what was the nature of your
4 expert testimony in that case?

5 WITNESS VLAMIS: My extensive background with
6 habitat, wetlands, values that are associated with
7 those four species in that region.

8 MS. ANSLEY: And you qualified to provide
9 expert testimony on biological impacts or biological
10 matters?

11 WITNESS VLAMIS: Biological implications, yes.

12 MS. ANSLEY: I looked at your Statement of
13 Qualifications, 226, and I didn't see any sections on
14 experience or education.

15 I saw that you have a great deal of long
16 history in environmental advocacy and projects that you
17 have worked on.

18 So I guess what I'm asking is, what is your
19 formal educational training?

20 WITNESS VLAMIS: My education is in
21 anthropology for a Bachelor's degree and a
22 Multidisciplinary Master's degree that involved
23 geography, linguistics, and anthropology.

24 MS. ANSLEY: Your anthropology degree, was it
25 cultural or biological anthropology?

1 WITNESS VLAMIS: Cultural.

2 MS. ANSLEY: Have you had any formal training
3 in biology?

4 WITNESS VLAMIS: I have had educational
5 background in biology and courses that I took post my
6 academic degree.

7 MS. ANSLEY: And -- And I don't mean to delve
8 in this too deeply.

9 Could you summarize -- if you can summarize it
10 up -- what those courses entailed or what those courses
11 were?

12 WITNESS VLAMIS: They ranged from wetlands,
13 wetland delineation, mapping, CEQA courses . . .

14 I mean, hopefully, that's sufficient.

15 MS. ANSLEY: Were these from a -- Were these
16 university courses?

17 WITNESS VLAMIS: Some of the -- Some of them
18 were and some of them were legal.

19 MS. ANSLEY: Do you have any formal experience
20 or training in hydrology?

21 WITNESS VLAMIS: It depends what you mean by
22 "formal."

23 MS. ANSLEY: I guess I mean an educational
24 experience in -- educational experience.

25 Have you taken courses in hydrology or

1 hydrogeology?

2 WITNESS VLAMIS: I've taken courses in
3 wetlands and -- and that entails some training in
4 hydrology.

5 MS. ANSLEY: Were these wetlands ecology
6 courses at university level?

7 WITNESS VLAMIS: Some were; some were post.

8 MS. ANSLEY: Beyond the courses that you took
9 in wetland ecology, do you have experience with
10 hydrogeology and/or modeling?

11 WITNESS VLAMIS: Definitely not modeling.

12 MS. ANSLEY: So we spoke in Part 1 about your
13 testimony in Part 1, which is largely duplicated here
14 today; is that correct?

15 WITNESS VLAMIS: It is not largely duplicated
16 here today, but we did speak in Part 1.

17 MS. ANSLEY: You do not present the testimony
18 you present in AQUA-227. Much of this language and
19 conclusions were not presented in Part 1?

20 WITNESS VLAMIS: Some of it was, and some of
21 it has been altered because there is additional
22 information that I felt could be provided in Part 2.

23 But the pages are quite different.

24 MS. ANSLEY: Looking at your testimony, Page 3
25 of 23.

1 And do you have a copy of that in front of
2 you?

3 WITNESS VLAMIS: Three or 23? Three of 23?

4 MS. ANSLEY: You have page numbers of the
5 total, so three, Page 3.

6 (Exhibit displayed on screen.)

7 WITNESS VLAMIS: Okay.

8 MS. ANSLEY: And, to be clear, I'm not ever
9 asking you just to usually render something out of
10 context, so if you need a moment to look at your
11 testimony or at the whole page, please let me know.

12 In terms of capacity of the Project,
13 Section 1, has your conclusions or testimony changed in
14 any way?

15 WITNESS VLAMIS: From what?

16 MS. ANSLEY: From what you provided in Part 1.

17 WITNESS VLAMIS: You have to be more explicit.
18 I don't understand where you're going.

19 MS. ANSLEY: Okay. I will actually just move
20 to the next section, which I think is easier to
21 address.

22 You provide testimony regarding existing
23 conditions for groundwater; is that correct?

24 WITNESS VLAMIS: I do.

25 MS. ANSLEY: And I see that, on Pages 4 and 5,

1 that you -- Do you provide additional information of
2 wells for the time period from 2004 to 2016; is that
3 correct?

4 WITNESS VLAMIS: Yes.

5 MS. ANSLEY: Has any of this new information
6 changed your conclusions on existing groundwater
7 conditions from what you provided in Part 1?

8 WITNESS VLAMIS: Of course.

9 MS. ANSLEY: And what would those changed
10 conclusions be?

11 WITNESS VLAMIS: Well, I read some of them
12 today, that there have been changes.

13 I mean, I think it's rather important to know
14 what is going on through time, not just in one
15 particular window, and that is what I'm looking at.

16 MS. ANSLEY: Is it your conclusion -- I'm
17 looking at Page 5 -- that with --

18 (Exhibit displayed on screen.)

19 MS. ANSLEY: -- your new evidence of
20 groundwater well levels in the county in your Table 1,
21 it appears that you say that the results are mixed,
22 whether groundwater conditions have improved or
23 worsened in these counties; is that correct?

24 WITNESS VLAMIS: Whether they've changed.
25 They're mixed. Whether there are changes.

1 MS. ANSLEY: And do you understand that
2 CWF H3+ is the Adopted Project before the Board
3 currently?

4 WITNESS VLAMIS: I do.

5 MS. ANSLEY: And do you understand that H3 --
6 H -- CWF H3+, the Alt -- It would be more properly said
7 as Alternative 4A --

8 WITNESS VLAMIS: 4A.

9 MS. ANSLEY: -- scenario H3+ -- does not
10 include water transfers in the future?

11 WITNESS VLAMIS: Well, we tried to go through
12 this last time and we disagree.

13 MS. ANSLEY: Can you identify -- Now, can we
14 agree that the CWF H3+ does contemplate ongoing lower
15 Yuba River accord water transfers?

16 Is that your understanding?

17 WITNESS VLAMIS: Do you want me to read you
18 what I put in my testimony.

19 MS. ANSLEY: I don't. I want your
20 understanding whether the --

21 WITNESS VLAMIS: Well, my understanding's is
22 in my testimony.

23 MS. ANSLEY: CWF H -- Do you have testimony
24 regarding the Yuba River accord?

25 WITNESS VLAMIS: I'm trying to tell you what

1 my understanding is about, and that there are going to
2 be significant new transfers, and they're in your
3 document.

4 So I don't know why we keep going through
5 this. Your document quote says it, so I am not making
6 this up.

7 MS. ANSLEY: I think that what we're
8 struggling with here -- Are -- Is it your understanding
9 the operations of the CWF H3+ propose specific
10 groundwater transfers --

11 WITNESS VLAMIS: I think --

12 MS. ANSLEY: -- following implementation?

13 WITNESS VLAMIS: The Project is proposing to
14 include water transfers as stated in your documents.

15 MS. ANSLEY: Is it your understanding that any
16 future water transfers, as yet unidentified or
17 approved, would require additional or separate
18 environmental compliance -- environmental review?

19 WITNESS VLAMIS: That would be determined at
20 the time.

21 What -- What may be programmatic or
22 Project-specific is up to a lead agency, not me.

23 MS. ANSLEY: And would it be your
24 understanding that any future water transfers -- I'm
25 speaking of cross-Delta water transfers. I believe

1 that's what you're speaking about in your testimony --
2 would potentially require additional regulatory review,
3 including by the State Water Resource Control Board or
4 the DWR?

5 WITNESS VLAMIS: Again, that will be up to
6 lead agencies, and it can include all of those things.
7 But it's not up to me to decide.

8 MS. ANSLEY: Are you familiar with the FEIR
9 chapter on the Project Description?

10 WITNESS VLAMIS: How many thousand pages is
11 that?

12 MS. ANSLEY: I -- It is a specific chapter in
13 the FEIR.

14 WITNESS VLAMIS: I am not familiar with all
15 the 3 million pages in this record --

16 MS. ANSLEY: Are you --

17 WITNESS VLAMIS: -- I can tell you that. So I
18 don't know what you're -- where you're going.

19 MS. ANSLEY: Are you familiar with the Project
20 operations and facilities of Alt 4A H3+?

21 WITNESS VLAMIS: Say that again.

22 MS. ANSLEY: Are you familiar with the
23 proposed operations and facilities of Alt 4A H3+?

24 WITNESS VLAMIS: In general? Or specifically,
25 like I'm an Engineer?

1 How -- How do you want -- I mean, what -- what
2 are you going after?

3 MS. ANSLEY: What I'm going after is that, in
4 the FEIR, there's a -- there's descriptions -- And I
5 will call up the chapter for you. I believe it's
6 Chapter 3.

7 But there are descriptions of what is
8 encompassed by each alternative and operational
9 scenario.

10 And if you want to speak in the parlance of
11 CEQA and the FEIR, they are called alternatives.
12 That's why I was saying --

13 WITNESS VLAMIS: I know they're alternatives.
14 I know about alternatives, yeah.

15 MS. ANSLEY: Just so we're on the same page
16 about what we're talking about.

17 And what I'm asking you is if you're familiar
18 with the Project Description for Alt 4A as an
19 alternative.

20 MR. JACKSON: I'm going to object to this so
21 that I can get to some consideration by the Hearing
22 Officers.

23 We're -- These questions are leading us pretty
24 deeply into the CEQA weeds, and are we now debating the
25 CEQA document?

1 MS. ANSLEY: Frankly, I was merely asking if
2 she's familiar with the description of the
3 determination in Chapter 3.

4 CO-HEARING OFFICER MARCUS: I know. No, we're
5 not talking about the adequacy of a document.

6 She's simply asking if she's familiar with the
7 Project as proposed in the Project. That is a totally
8 fair question.

9 WITNESS VLAMIS: I have a general --

10 CO-HEARING OFFICER MARCUS: Folks are able to
11 ask -- Okay. Let me finish, Miss Vlamis.

12 WITNESS VLAMIS: Excuse me.

13 CO-HEARING OFFICER MARCUS: I talked about it
14 yesterday; I'm not going to talk about it every day
15 from now on.

16 But we have -- Folks feel strongly.

17 It's just so much more helpful for folks to
18 let people ask their questions, regardless of who they
19 are, and just try to answer the question as opposed --
20 It's not a fight. It's not a contest. It doesn't help
21 us make a decision.

22 She's entitled to ask questions.
23 Mr. Jackson's always entitled to object and vice versa.

24 But there's a -- Because people feel strongly,
25 we're wasting a lot of human energy on the fight part

1 rather than just try to ask the question.

2 CO-HEARING OFFICER DODUC: Thank you. Well
3 said.

4 Miss Ansley, would you like to repeat your
5 question?

6 MS. ANSLEY: Yes. And I'll try and do it in
7 parts maybe.

8 Are you aware that Chapter 3 is the
9 description of alternatives for the FEIR?

10 WITNESS VLAMIS: I have forgotten at this
11 point. I have moved on from this CEQA document to
12 other more significant projects.

13 MS. ANSLEY: So you're -- you're -- As you sit
14 here today, you're not familiar with Chapter 3,
15 Description of Alternatives.

16 WITNESS VLAMIS: I have not read that chapter
17 in some time.

18 MS. ANSLEY: I'm just going -- I'm going to
19 move on.

20 Is it your understanding that any cross-Delta
21 water transfers are limited by constraints in the
22 current Biological Opinions for the CWF -- for the CVP
23 and SWP operations?

24 WITNESS VLAMIS: Is this about this Project?
25 I just want to know. So any question is open? I just

1 want to understand the question.

2 I'm sorry. This isn't my usual arena --

3 MS. ANSLEY: Yes. So --

4 WITNESS VLAMIS: -- if we're going to talk
5 about transfers, any transfers.

6 MS. ANSLEY: Well, I -- I believe your
7 testimony is -- pertains to transfers from the
8 Sacramento Valley cross-Delta south of the Delta; is
9 that correct?

10 And I assume that you understand -- Or I'm
11 asking your understanding of the regulatory constraints
12 on such transfers since they are the topic of your
13 testimony.

14 WITNESS VLAMIS: There are regulatory
15 constraints.

16 MS. ANSLEY: And are you aware of those
17 constraints in the Biological Opinions?

18 WITNESS VLAMIS: I'm aware of probably most of
19 them.

20 MS. ANSLEY: Are you aware that the current
21 Biological Opinions provide a window for transfers?

22 WITNESS VLAMIS: Yes.

23 MS. ANSLEY: Are you aware that they also
24 provide a limit on the total amount of water that can
25 be transferred in hydro -- certain hydrologic years?

1 WITNESS VLAMIS: Yeah.

2 MS. ANSLEY: I think I want to just ask about
3 one assertion in Miss Vlamis' testimony. Then I'm done
4 with questions for Miss Vlamis.

5 If we could look at Page 10 of your testimony.

6 (Exhibit displayed on screen.)

7 WITNESS VLAMIS: (Examining document.)

8 MS. ANSLEY: And let me know when you're
9 ready.

10 WITNESS VLAMIS: I'm done.

11 MS. ANSLEY: And looking at the paragraph that
12 follows the bullet point list, where it starts
13 out, "The SDEIS."

14 Do you see that paragraph?

15 WITNESS VLAMIS: Yes.

16 MS. ANSLEY: And I believe you're stating here
17 that -- that the -- And this is the Recirculated Draft
18 EIR. You state it (reading):

19 ". . . acknowledges that less water will
20 be available for delivery south of the
21 Delta with the Project . . .
22 Alternative 4A . . ."

23 WITNESS VLAMIS: Are you asking me something?
24 Did I miss --

25 MS. ANSLEY: Yes. Is it your understanding

1 from the RDEIR that less water will be available for
2 delivery south of the Delta?

3 WITNESS VLAMIS: Yes.

4 MS. ANSLEY: And you said --

5 WITNESS VLAMIS: There's a citation that I put
6 there because of that, yeah.

7 MS. ANSLEY: And is it your understanding that
8 Alternative 4A would increase water transfer demand
9 compared to existing conditions?

10 Do you see --

11 WITNESS VLAMIS: Yes.

12 MS. ANSLEY: -- that?

13 WITNESS VLAMIS: Yes.

14 MS. ANSLEY: What I'm doing is laying
15 foundation for my next question.

16 WITNESS VLAMIS: I get it.

17 MS. ANSLEY: Okay. What I'm asking now is:

18 Are you aware of the difference between the
19 No-Action Alternative Scenario and the Existing
20 Condition Scenario?

21 WITNESS VLAMIS: Yeah.

22 MS. ANSLEY: And what you are citing here, I
23 believe, is a cite from the comparison to the Existing
24 Condition Scenario; is that correct?

25 WITNESS VLAMIS: I'd have to -- I'd have to

1 look at the document to know that.

2 MS. ANSLEY: Okay. Can we go to Chapter 5 of
3 SWRCB-102.

4 (Exhibit displayed on screen.)

5 MS. ANSLEY: And can we go to Page 5-177.

6 (Exhibit displayed on screen.)

7 MS. ANSLEY: And as a -- As a note, I note
8 here that you are citing the Recirculated EIR.

9 Is there a reason why you're not citing the
10 Final EIR in your testimony?

11 WITNESS VLAMIS: Time.

12 MS. ANSLEY: Okay. And if we could go to
13 Lines -- Oh, can you blow up on Lines 11 through 16.

14 (Exhibit displayed on screen.)

15 MS. ANSLEY: That's perfect.

16 And if you need me to zoom back out because
17 you want to read more, just let me more.

18 I'm focusing on Lines 11 through 16, which is
19 the analysis from the Final EIR of Alternative 4A.

20 Do you see that it says that the Alt 4A
21 will -- as compared to the No-Action Alternative will
22 decrease cross-Delta water transfer demand compared to
23 the No-Action Alternative?

24 WITNESS VLAMIS: (Examining document.)

25 What is it that you want me to understand that

1 you're asking?

2 MS. ANSLEY: Well, I'm asking, do you -- I
3 guess what I would say: Is it your understanding that
4 the Final EIR found that Alt 4A as compared to the
5 No-Action Alternative will decrease cross-Delta water
6 transfer demand?

7 Is -- Is that --

8 WITNESS VLAMIS: I'm don't --

9 MS. ANSLEY: Was that your understanding?

10 WITNESS VLAMIS: I don't see -- I'm not seeing
11 what you're seeing here, I guess.

12 MS. ANSLEY: I guess I was looking at Lines 11
13 through 16.

14 WITNESS VLAMIS: It would change allocations?
15 And the frequency of years? Are -- They're assumed to
16 be triggered?

17 It doesn't say that they will. They might.
18 And this is one paragraph out of the whole FEIR.

19 MS. ANSLEY: That's fine.

20 I was asking if that was your understanding of
21 what the EIR concluded.

22 WITNESS VLAMIS: If this is?

23 MS. ANSLEY: Yes. If that --

24 WITNESS VLAMIS: What --

25 MS. ANSLEY: If that sentence represents what

1 your understanding is of what the FEIR -- FEIR --

2 WITNESS VLAMIS: No.

3 MS. ANSLEY: -- concluded regarding --

4 WITNESS VLAMIS: No.

5 MS. ANSLEY: -- water transfers.

6 I guess I'll ask one more followup question.

7 So back to your sentence on Page 10 when --

8 WITNESS VLAMIS: Can --

9 MS. ANSLEY: Oh, sure.

10 WITNESS VLAMIS: Can we go back to where it
11 just was?

12 MS. ANSLEY: Yes.

13 (Exhibit displayed on screen.)

14 WITNESS VLAMIS: I mean, look at Number --
15 Line 17, 18 and 19. I mean, it --

16 MS. ANSLEY: That was going to be my followup
17 question.

18 But my followup question is: So your
19 statement -- I was making sure that your statement here
20 on Page 10 was a comparison between Alt 4A and the
21 Existing Condition Scenario.

22 So I'm asking for the -- to make sure that we
23 are clear on the basis for your results -- or your
24 conclusions.

25 WITNESS VLAMIS: My result is based on the

1 document that I reviewed.

2 MS. ANSLEY: Okay. Let me look through my
3 questions.

4 And I hope -- I mean, I do not mean to be
5 obstructionist, but I'm entitled to understand the
6 basis of your opinions. And if I feel that a sentence
7 is unclear with a citation to a specific document or
8 reference is, I am allowed to ask the nature of your
9 understanding of what you are claiming in your
10 testimony.

11 So what I was trying to understand there was
12 which scenarios you were actually comparing to reach
13 your conclusion on Page 10 regarding impacts of Alt 4A.

14 WITNESS VLAMIS: Let me look.

15 You think my conclusion there is -- Do you
16 think it's inaccurate?

17 CO-HEARING OFFICER DODUC: We are not going to
18 have a back and forth.

19 WITNESS VLAMIS: Well, no. I -- Okay. I
20 don't know what I have to say to you, then.

21 MS. ANSLEY: That's fine. I can move on. I
22 have the evidence I need in the record.

23 I -- My last questions are for Mr. Custis.

24 Let me get your testimony out.

25 Do you have a copy of your testimony in front

1 of you, sir?

2 WITNESS CUSTIS: Yes. Part 2? Yes.

3 MS. ANSLEY: Looking at Page 2 of your
4 testimony, I note that you say that your Part 1
5 testimony focused on results from Alternative 4; is
6 that correct?

7 It's the -- pretty much the first sentence on
8 Page 2.

9 WITNESS CUSTIS: Impact results from
10 Alternative 4, yes.

11 MS. ANSLEY: And here in Part 2, you're now
12 presenting results for Alternative 4A; is that correct?

13 WITNESS CUSTIS: That's correct.

14 MS. ANSLEY: And for Miss Gaylon over there,
15 we are starting to look at AquAlliance Exhibit 202.

16 (Exhibit displayed on screen.)

17 MS. ANSLEY: Is there a reason why your Part 1
18 testimony didn't use Alt 4A?

19 WITNESS CUSTIS: No, I can't -- I can't think
20 of a reason why.

21 I think that, in the documents, a lot of the
22 impacts for 4A are impacts of Alt 4. I mean, just --
23 These are -- You don't -- You don't have a 4A separate
24 from a 4 -- from a 4. You mix the two together over
25 time, so . . .

1 MS. ANSLEY: I'm just trying to make sure the
2 record's clear.

3 You understand that Alt 4 is a BDCP Scenario;
4 is that correct?

5 WITNESS CUSTIS: That was earlier, yes.

6 MS. ANSLEY: And Alt 4A is the -- is a
7 scenario under California WaterFix that I believe was
8 first presented in the Recirculated Draft EIR; is that
9 correct?

10 WITNESS CUSTIS: I'll take your word for it,
11 yes.

12 MS. ANSLEY: And I do acknowledge that many of
13 the impacts of Alt 4A do present the same analysis as
14 Alt 4. I'm just trying to make sure that I understand
15 the bounds of your testimony.

16 Moving to Page 4 of your testimony
17 regarding --

18 (Exhibit displayed on screen.)

19 MS. ANSLEY: -- groundwater flow.

20 Can we call up your AquAlliance 204?

21 (Exhibit displayed on screen.)

22 WITNESS CUSTIS: Okay.

23 MS. ANSLEY: And this is the basis for your
24 conclusion that the general direction of groundwater
25 flow in the Delta is from west to east; is this

1 correct?

2 WITNESS CUSTIS: That's my -- That's my
3 statement, yes.

4 MS. ANSLEY: And these look to me like the
5 contour of groundwater elevations for the South
6 American Subbasin and maybe part of the Eastern
7 San Joaquin Subbasin; is that correct?

8 WITNESS CUSTIS: These are contours -- I would
9 say that's -- I mean, the actual boundary may be a
10 little broader, but, yes. That's what the trough in
11 the middle of the --

12 MS. ANSLEY: Is it --

13 WITNESS CUSTIS: -- exhibit is showing.

14 MS. ANSLEY: And you marked on here the --
15 what you understand to be the proposed tunnel alignment
16 for Alt 4A.

17 That's your dashed red line?

18 WITNESS CUSTIS: Yes.

19 I -- I've just basically melded -- I don't
20 know which one -- one of the exhibits from the
21 Final EIR scaled at -- I just drew it on top, trying to
22 line it up with the -- the general.

23 MS. ANSLEY: And is there a reason why we
24 don't have contour lines filling in the area around the
25 Alt 4A tunnel alignment?

1 WITNESS CUSTIS: Is there a reason?

2 MS. ANSLEY: Is there a reason --

3 WITNESS CUSTIS: Yes.

4 MS. ANSLEY: -- you didn't include elevations
5 for -- along the tunnel alignment?

6 WITNESS CUSTIS: There's a reason that I don't
7 include it. It's because DWR hasn't published it.
8 This is coming off DWR's GIS website.

9 So I'd love to see the con -- the contours in
10 the Delta, but they don't put them in there, maybe
11 because it's very complex.

12 (Timer rings.)

13 MS. ANSLEY: I will agree that the hydrology
14 can be complex.

15 But I'm just looking at this as the basis for
16 your assertion that, overall, the groundwater flow is
17 from west to east.

18 Is that what you're stating?

19 WITNESS CUSTIS: In a general direction, yes.
20 It's because of the -- you see the below sea-level
21 trough that's there? That's been consistent in the
22 document -- in the -- You go on the website and you see
23 that each -- I think in the last sort of mix. They go
24 back 10 years.

25 MS. ANSLEY: I do see that.

1 And I do see that the red contour lines is the
2 zero elevation; is that correct?

3 WITNESS CUSTIS: That's sea level, yes.

4 MS. ANSLEY: And do you have an understanding
5 of the westside of the Sacramento. It's -- I
6 understand that it's a White area of your map here.
7 The flow of groundwater on the westside of the
8 Sacramento River?

9 WITNESS CUSTIS: You can't see the -- the --
10 Well, you have to zoom in on the website to see what it
11 is.

12 But what I saw was generally from the -- the
13 higher point there on the -- where the contours come
14 together and sort of black out.

15 It . . . flows southeast. There's a couple of
16 low points in there that are -- they look like they're
17 from irrigation so there'll be a little mound in there.
18 But, for the most part, it's from . . . that western
19 glob of contours towards the Delta.

20 MS. ANSLEY: And I believe you state in
21 your -- the first part of your testimony, that it's
22 your opinion that the tunnels will create a continuous
23 impermeable structure that could interfere or disrupt
24 horizontal and vertical groundwater flows?

25 WITNESS CUSTIS: Correct.

1 MS. ANSLEY: Are you aware that this was the
2 subject of testimony in Part 1 of this proceeding?

3 WITNESS CUSTIS: I was not aware of that
4 testimony.

5 MS. ANSLEY: Are you familiar with the
6 testimony of DWR witness Gwen Buchholz in Part 1 of
7 this proceeding on the subject?

8 WITNESS CUSTIS: No.

9 MS. ANSLEY: So you do not here today provide
10 a critique of her testimony.

11 WITNESS CUSTIS: I'm not providing a critique
12 of her testimony.

13 MS. ANSLEY: Moving on to --

14 CO-HEARING OFFICER DODUC: Miss Ansley --

15 MS. ANSLEY: Oh.

16 CO-HEARING OFFICER DODUC: -- how much
17 additional time do you need?

18 MS. ANSLEY: 15 minutes.

19 Mr. Custis seems to be, you know, very good in
20 just directly answering questions.

21 CO-HEARING OFFICER DODUC: We are going to
22 have to take the lunch break soon.

23 MS. ANSLEY: This is actually a new topic, so
24 I can stop.

25 CO-HEARING OFFICER DODUC: Let's stop.

1 We are going to take a lunch break, a very
2 late lunch break. Apologies to the court reporter.

3 And so we will return at 1:45.

4 MR. JACKSON: I've just got a question.

5 Can the rest of the folks be excused other
6 than Mr. Custis?

7 CO-HEARING OFFICER DODUC: No. Mr. Keeling
8 has questions for everybody.

9 MR. JACKSON: Oh, that's true. I'm sorry.

10 CO-HEARING OFFICER DODUC: And --

11 MR. KEELING: I have questions for
12 Dr. Hankins, not for the others. Not for Miss Vlamis.

13 MS. ANSLEY: I am done with questions for
14 Miss Vlamis unless there's redirect, obviously.

15 And then I am done with Mr. Hankins and Mr. --
16 Dr. Hankins -- excuse me -- and Mr. Brobeck.

17 CO-HEARING OFFICER DODUC: So the only
18 questions you have left are for Mr. Custis.

19 MS. ANSLEY: That's correct.

20 CO-HEARING OFFICER DODUC: And the only
21 questions you have is for Mr. Brobeck.

22 MR. KEELING: No. I have questions for
23 (inaudible).

24 CO-HEARING OFFICER DODUC: Okay. And
25 Miss Womack?

1 MS. WOMACK: (Inaudible).

2 CO-HEARING OFFICER DODUC: So Mr. Brobeck and
3 Miss Vlamis can go?

4 All right. See you at 1:45.

5 (Lunch recess at 12:49 p.m.)

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1 Wednesday, March 28, 2018 1:45 p.m.

2 PROCEEDINGS

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4 CO-HEARING OFFICER DODUC: All right. It is
5 1:45. We are back in session.

6 And let's do some housekeeping before we
7 resume DWR's cross-examination of this panel.

8 We received a request from PCFF -- PCFFA and
9 IFR to change their Order of Presentation with
10 Miss Des Jardins.

11 I'm a bit confused about the request, so this
12 is a shout-out to Mr. Volker. He is requesting to move
13 five of his witnesses from Panels 1 and 2 to present
14 before Miss Des Jardins' case in chief.

15 My questions to him is: What about Mr. Bitts
16 and Mr. Belchik?

17 Mr. Bitts is on Panel 1. Mr. Belchik is on
18 Panel 2. Is he proposing that they now constitute a
19 second panel, or is he dropping them?

20 And then my other question for him is: He
21 requested that they be moved before Miss Des Jardins on
22 April 2nd.

23 And, one, we are not providing date certainty.

24 Two, at this point, I don't know whether we'll
25 get to Miss Des Jardins or, in this case, PCFFA on

1 April 2nd.

2 So if we do not, does that mean his request is
3 moot? That's for him to respond to us.

4 But, in the meantime, have you had a chance to
5 look at it and do you have any concerns about that,
6 Miss Ansley?

7 MS. ANSLEY: I think subject to the
8 clarifications you just asked for, and going no earlier
9 than Monday, the 2nd, I think that we are fine with it.
10 We have enough time to adjust for that proposed
11 change --

12 CO-HEARING OFFICER DODUC: All right.

13 MS. ANSLEY: -- in light of getting answers to
14 the questions.

15 And is it -- So next week, our only date of
16 hearing is Monday, the 2nd?

17 CO-HEARING OFFICER DODUC: Correct.

18 So Mr. Volker should either e-mail the hearing
19 team, hearing notice, list, whatever the correct e-mail
20 address is, with that information or have someone be
21 prepared tomorrow to respond to those questions when we
22 reconvene.

23 Any other housekeeping matter?

24 Thank you, Restore the Delta, for being here.

25 I had hoped that we would get to you as soon as our

1 lunch break was over, but we do have at least, I think,
2 half an hour, 15 minutes for Miss Ansley, 15 minutes
3 for Mr. Keeling, and a few minutes for Miss Womack?

4 MS. WOMACK: Maybe more.

5 CO-HEARING OFFICER DODUC: So it will be
6 probably around 2:00-ish when we get to you, but we
7 definitely will get to you.

8 All right. Miss Ansley.

9 MS. ANSLEY: Yes.

10 And before we get started, I'd like to
11 belatedly, for the record, lodge a hearsay objection to
12 Miss Vlamis' testimony.

13 I can just give you the exact placement.

14 If you look at -- If you look at Page -- Oh.

15 If you look at Page 14, there's a paragraph.
16 It's the second full paragraph regarding her telephone
17 call with the Bureau and what was said to her by a
18 person at the Bureau.

19 That paragraph I would like to have a timely
20 objection to hearsay on that.

21 CO-HEARING OFFICER DODUC: All right. We'll
22 note that.

23 MS. ANSLEY: Thank you.

24 MR. JACKSON: Do you wish me to make the
25 standard response to it?

1 CO-HEARING OFFICER DODUC: Go ahead, but you
2 know how we handle hearsay.

3 MR. JACKSON: Right, I do. And that was going
4 to be the response.

5 CO-HEARING OFFICER DODUC: Yeah.

6 MS. ANSLEY: Mr. Custis, looking at Page 8 of
7 your testimony, if you have that in front of you.

8 (Exhibit displayed on screen.)

9 WITNESS CUSTIS: All right.

10 MS. ANSLEY: You talk about annual volumes of
11 cross-Delta transfers of 600,000 to 1 million
12 acre-feet; is that correct?

13 WITNESS CUSTIS: That's correct.

14 MS. ANSLEY: And is it your understanding,
15 just generally, that cross-Delta water transfers are
16 limited by the current Biological Opinions?

17 WITNESS CUSTIS: Yes.

18 MS. ANSLEY: And do you understand that those
19 limits are by hydrologic year type?

20 WITNESS CUSTIS: Yes.

21 MS. ANSLEY: And is it your understanding that
22 the maximum amount is 600,000 acre-feet for any year
23 type?

24 WITNESS CUSTIS: I don't know. Like I say, I
25 know that specific requirement.

1 MS. ANSLEY: And is it your understanding on
2 the current Biological Opinions for the CVP/SWP
3 operations, that there is a transfer window of July to
4 September?

5 WITNESS CUSTIS: I know in reading the
6 document that they talk about a transfer window. I
7 don't -- I'm assuming it comes from the Biological
8 Opinion.

9 MS. ANSLEY: Are you familiar with the
10 Biological Opinions now issued for the California
11 WaterFix Project?

12 WITNESS CUSTIS: No.

13 MS. ANSLEY: And based on that answer, I'm
14 assuming that you do not know whether there have been
15 any changes to those water transfer limits.

16 WITNESS CUSTIS: That would be correct.

17 MS. ANSLEY: I'd like to move on to the last
18 portion of your testimony regarding impacts to natural
19 gas wells, which I believe start around Page 16.

20 (Exhibit displayed on screen.)

21 MS. ANSLEY: Or -- excuse me -- natural gas
22 fields.

23 So on Pages 16 to 18 of your testimony, you
24 raise concerns regarding the impacts of construction of
25 the California WaterFix on natural gas fields and

1 wells; is that correct?

2 WITNESS CUSTIS: I would -- I'm concerned that
3 the construction of the WaterFix Project on the wells
4 that are in its path.

5 I'm assuming that the well field outside of
6 the WaterFix Tunnels will take care of itself. I think
7 that was the conclusion of the EIR.

8 MS. ANSLEY: So well fields that are outside
9 of the alignment of the tunnels, you're not concerned
10 with?

11 WITNESS CUSTIS: That's -- That's -- There
12 needs to be a buffer around those tunnels, but, yeah,
13 outside of that buffer, yeah, I'm not concerned with.

14 MS. ANSLEY: And in your testimony, you
15 mention that you reviewed Chapter 24, which is on
16 hazardous materials, and 26, which is on mineral
17 resources; correct?

18 WITNESS CUSTIS: That's correct.

19 MS. ANSLEY: Did you also review Chapter 20 on
20 public services and utilities?

21 WITNESS CUSTIS: I can't recall whether I've
22 read it. I mean, I didn't cite anything in it,
23 so . . .

24 MS. ANSLEY: And you reviewed impact hazard --
25 which is abbreviated HAZ1, which is -- which is an

1 impact regarding potential impacts from encountering
2 gas fields under construction of Alt 4A.

3 You've reviewed that?

4 WITNESS CUSTIS: The impacts from the
5 construction of gas field --

6 MS. ANSLEY: Oh, the --

7 WITNESS CUSTIS: The hazard section, I
8 reviewed it. I don't recall all of its components.

9 MS. ANSLEY: And are you familiar with
10 Mitigation Measures Hazard 1A and 1B, which have been
11 adopted as part of the California WaterFix Project?

12 WITNESS CUSTIS: Well, I'd have to look at
13 the -- That's in your -- your most recent Monitoring
14 Plan --

15 MS. ANSLEY: Yes.

16 WITNESS CUSTIS: -- monitoring?

17 MS. ANSLEY: It would be in there. And that
18 would be, if you want to look for an easier
19 reference --

20 WITNESS CUSTIS: I copied some of those. I
21 don't know if I -- Which measure is it?

22 MS. ANSLEY: 1A and 1B. I just have one
23 followup question about that.

24 WITNESS CUSTIS: Hazard, 1A, 1B?

25 You can -- I don't know if I have a copy of it

1 in front of me. I only have certain components of
2 that.

3 MS. ANSLEY: I'm happy to ask my question. If
4 you would like me to pull it up, I'm always happy to
5 pull it up.

6 Is it your understanding that one of the
7 measures proposed, then, is that the DWR will
8 coordinate with landowners to help identify potentially
9 hazardous infrastructure, such as natural gas wells?

10 WITNESS CUSTIS: I would assume that they
11 would be required to identify any natural gas -- any --
12 any hazardous structures, whatever they are.

13 MS. ANSLEY: And is it your understanding as
14 well that measures have been adopted as part of the
15 California WaterFix to verify locations of utility
16 infrastructure and relocate utility infrastructure,
17 such as natural gas wells?

18 WITNESS CUSTIS: Well, I'm assuming -- Okay.
19 I'll assume that those mitigations have been -- are in
20 place.

21 I'm not sure how you relocate an abandoned gas
22 well, but . . . putting that aside (laughing).

23 MS. ANSLEY: Are you familiar with the Draft
24 Conceptual Engineering Report for the California
25 WaterFix?

1 And I can bring up the cover page if you'd
2 like to see it.

3 WITNESS CUSTIS: Yeah. I -- Specifically, no.
4 I -- I -- I've read so many documents. If I didn't
5 cite it in my testimony, it's not -- I didn't recall
6 it.

7 MS. ANSLEY: One of the concerns you raised
8 was safety of the tunnel and workers for trapping
9 natural gas from the tunnels.

10 Is that -- Do I paraphrase that correctly?

11 WITNESS CUSTIS: No, I don't -- I don't -- The
12 E -- The EIR talks about Cal/OSHA and MSHA regulations
13 for ventilating the shaft, the tunnels, during
14 construction.

15 And that's a standard procedure that -- that
16 I -- You know, it's going to go forward. Nobody's
17 going to walk in there in an explosive environment.
18 That's going to be known.

19 MS. ANSLEY: Have you ever heard of tunnels
20 being classified as -- and I swear this is a direct
21 quote -- potentially gassy by OSHA?

22 WITNESS CUSTIS: Oh, I would -- Based on my
23 hazwoper training I do every year, any confined space,
24 which that tunnel is, would be -- you know, the quality
25 of the air would be something that you'd have to

1 sample.

2 And if you have, you know, an underground
3 tunnel as long and as -- and traveling through a gas
4 field, you would obviously have an explosive device --
5 you know, measurement device to make sure you don't get
6 an explosive limit cross over that.

7 And you probably have ventilation requirements
8 in there, because there is no air unless you bring it
9 in.

10 MS. ANSLEY: But you are not, as you're
11 sitting here, aware of the measures outlined in the
12 Conceptual Engineering Report to deal with construction
13 worker safety in the tunnels due to natural gas, or
14 identification of natural gas wells in the path of the
15 alignment?

16 WITNESS CUSTIS: I didn't read exactly how
17 they chose their 15 wells that are in the path. I
18 mean, they didn't el -- From what I could recall, they
19 didn't elaborate on . . . whether they actually went
20 out and found those wells, or whether they're using the
21 augur coordinates which, depending on the age of the
22 well, and the EIR admits could be very inaccurate.

23 And there's also the issue of, you know,
24 mis -- mislocated wells.

25 MS. ANSLEY: Can we just quickly pull up

1 DWR-212.

2 And -- And then this is all I have. Then I'll
3 be finished.

4 CO-HEARING OFFICER DODUC: (Nodding head.)

5 (Exhibit displayed on screen.)

6 MS. ANSLEY: Could we go to Page 155.

7 (Exhibit displayed on screen.)

8 MS. ANSLEY: And probably zoom out.

9 (Exhibit displayed on screen.)

10 MS. ANSLEY: I don't know if you can see this
11 well.

12 This is -- I will represent that this is a
13 figure from the Conceptual Engineering Report, which I
14 know you've said that you are not familiar with the
15 report as a whole.

16 Do you have -- Have you ever seen this figure
17 before in any other context?

18 WITNESS CUSTIS: I have seen -- And I can't
19 recall. I've seen maps that you produced showing the
20 wells on the Project area.

21 I don't know -- I probably haven't seen this
22 one, but, you know, essentially, they're the same
23 information being provided in them.

24 MS. ANSLEY: You've seen similar figures
25 locating the -- locating (laughing) -- identifying the

1 location of known groundwater wells in the vicinity of
2 the tunnel alignment?

3 WITNESS CUSTIS: I've seen figures that show
4 some groundwater wells, yeah. I don't --

5 MS. ANSLEY: Or I mean -- sorry -- natural gas
6 wells. If I said "water," I apologize.

7 WITNESS CUSTIS: I've also seen figures
8 showing natural gas wells.

9 MS. ANSLEY: Yeah, okay.

10 WITNESS CUSTIS: They're all part of your
11 document.

12 MS. ANSLEY: Okay. Thank you.

13 That's all I have.

14 Thank you, Mr. Custis.

15 CO-HEARING OFFICER DODUC: Thank you,
16 Miss Ansley.

17 Mr. Keeling.

18 I believe Mr. Keeling has estimated 15
19 minutes.

20 MR. KEELING: Tom Keeling for the San Joaquin
21 County Protestants.

22 I'll have a few questions for Dr. Hankins
23 concerning the California Indian Water Commission and
24 recognition in the law of indigenous people's rights in
25 the water independent of their status as legal users.

1 For -- For Mr. Custis, I will have questions
2 with respect to the -- the effect of a -- an
3 impenetrable construction 39 miles or 40 miles law.

4 He testified to the use of the term "aquifer"
5 and "subbasin."

6 His testimony about the impact of natural gas
7 fields and wells.

8 And his testimony about disconnecting --
9 disconnecting the aquifer and reorienting flow
10 directions.

11 I will also ask him about SGMA as well.

12 Let's begin with Dr. Hankins.

13 CROSS-EXAMINATION BY

14 MR. KEELING: Dr. Hankins, you testify that
15 you are currently the President of the California
16 Indian Water Commission; is that correct?

17 WITNESS HANKINS: Yes, that is.

18 MR. KEELING: What is the California Indian
19 Water Commission?

20 WITNESS HANKINS: So, earlier, I described it
21 as a Federally recognized travel -- intertribal
22 organization pursuant to Public Law 936.38, so
23 Congressional Indian Law that establishes the rights
24 for tribes to establish intertribal organizations under
25 the jurisdiction of Bureau of Indian Affairs.

1 MR. KEELING: Are you familiar with the
2 Winters Act?

3 WITNESS HANKINS: To some extent. I'm --

4 MR. KEELING: Okay.

5 WITNESS HANKINS: -- not a lawyer, so I don't
6 know --

7 MR. KEELING: Well, I'm not -- I understand
8 that. I'm not asking for legal -- your legal opinion.

9 But in your capacity as President of the
10 California Indian Water Commission and the work you do
11 there, have you become familiar with the Winters Act?

12 WITNESS HANKINS: Yes.

13 MR. KEELING: What is it?

14 WITNESS HANKINS: It's based off of a case
15 back in the early 1900s, as far as I'm aware, that
16 dealt with travel water rights, surface water rights,
17 for use of those waters, not just for use in terms of
18 agricultural use.

19 So tribes would have the rights to the waters
20 coming through their lands and their aboriginal
21 territories, but it also applies to the connection in
22 the landscape to -- I guess what I would call
23 intangible components.

24 Mainly, I'm thinking of fish and wildlife and
25 making sure that those waters are there so that

1 fisheries can be maintained and wildlife can be
2 maintained.

3 MR. KEELING: So bearing in mind that you're
4 not a lawyer, and I'm not going to ask you any legal
5 questions.

6 WITNESS HANKINS: Thanks.

7 MR. KEELING: Is it fair to say, based on your
8 understanding, that the tribes -- indigenous peoples of
9 California do have legally recognized rights in water
10 resources independent of their status as diverters or
11 legal users of water?

12 WITNESS HANKINS: Yes.

13 MR. KEELING: Does that include groundwater?

14 WITNESS HANKINS: Yes, it does.

15 MR. KEELING: How do you know that?

16 WITNESS HANKINS: Based on the Ninth Circuit
17 Court of Appeals case of Agua Caliente versus the
18 Coachella Water District and others.

19 MR. KEELING: That's the one that came down a
20 couple months ago?

21 WITNESS HANKINS: That's right.

22 MR. KEELING: Again, I know you're not a
23 lawyer -- I'm not asking you for a legal opinion -- but
24 what is your understanding of what those groundwater
25 rights are?

1 WITNESS HANKINS: Based on that case, my
2 understanding is that the lawyers saw -- or the courts
3 had seen that -- that it follows the Winters case.

4 From a traditional perspective, if I may, we
5 don't see a distinction between ground and surface
6 water. They're all the same.

7 MR. KEELING: Thank you.

8 I believe you testified earlier today that you
9 personally had experience with the Delta in connection
10 with activities such as your first basket weave.

11 Can you tell me more about that.

12 WITNESS HANKINS: Sure.

13 Yeah. So I testified earlier talking about
14 tradition culture properties within the Delta and using
15 that term as a legal term under the National Historic
16 Preservation Act.

17 There are multiple sites throughout the Delta
18 that I described and showed some examples, particularly
19 in relationship to the import and export facilities
20 related to this Project.

21 And what I described in terms of Clifton Court
22 Forebay. And a field that's on the east side of
23 Clifton Court Forebay between the river and the Clifton
24 Court Forebay is a site where I had made and collected
25 my first materials for weaving baskets.

1 Sandbar Willows are -- were one of the main
2 things out there. I also mentioned the Sedges that
3 were out there.

4 As I'm thinking and talking about this, I also
5 think about other things that were out there. Nettles.
6 I remember seeing Bald Eagles along -- Valley Oak trees
7 that are no longer there because of the Army Corps of
8 Engineers had girdled the trees with riprap.

9 Just some of the species that were out there.
10 But all of those species that I mentioned are cultural
11 resources and have been and will used provided they're
12 still there for us.

13 MR. KEELING: Do you have any knowledge or
14 understanding as to whether the area near Clifton Court
15 Forebay that you are familiar with is being utilized
16 for purposes of the Proposed California WaterFix?

17 WITNESS HANKINS: Sorry. I'm not
18 understanding that.

19 MR. JACKSON: Well, do you have an
20 understanding of what areas near Clifton Forebay --

21 WITNESS HANKINS: Yeah.

22 MR. KEELING: -- are going to be utilized, you
23 know, under the Proposal?

24 WITNESS HANKINS: Yeah.

25 So, precisely -- and I think this shows on the

1 map that I had displayed -- the site where I gathered
2 my Willows, and continue to have some relation with
3 that landscape, is the proposed site where the tunnels
4 would surface and import the water into Clifton Court
5 Forebay. That particular site.

6 Under other alternatives, excluding, you
7 know -- And I don't -- I'm not familiar with all the
8 different alternatives. To me, they're all bad.

9 But I think there are definitely other areas
10 in or around the Clifton Court Forebay that would be
11 impacted by it as well.

12 And there's inter -- interrelated projects, I
13 believe, that are tied to this that other agencies,
14 including the Bureau of Reclamation and Contra Costa
15 Water District, have talked about, which aren't
16 included in the analysis for this, which in my mind is
17 piecemealing.

18 But, yeah, there's a -- there's a lot of
19 potential for impact there.

20 MR. KEELING: Are you at all familiar with the
21 Proposed Project's planned disposal of muck?

22 WITNESS HANKINS: It's been awhile since I've
23 read everything. I'll admit, out of 35,000 pages of
24 the original BDCP document, I read 5,000 pages.

25 And -- Yeah. As an individual, I didn't have

1 money to pay Contractors to come and look at this.

2 But with the revisions and so forth, I -- I
3 don't remember everything about the muck, but I -- I
4 know some extent of different proposed uses for it.
5 How's that?

6 MR. KEELING: Do you -- Based on your
7 knowledge of the Delta and this area and your work with
8 the California Indian Water Commission, have you formed
9 any opinion about whether muck disposal will interfere
10 with tribal interests?

11 CO-HEARING OFFICER DODUC: Hold on, please,
12 Dr. Hankins.

13 MS. ANSLEY: Objection: Lacks foundation.
14 I don't believe he's testified that he's aware
15 of where this disposal will even occur. He seemed to
16 not remember details regarding the reasonable tunnel
17 material.

18 CO-HEARING OFFICER DODUC: Well, let's see if
19 he's able to answer.

20 WITNESS HANKINS: I would say, given my
21 knowledge of the Delta -- and which is pretty
22 extensive -- anywhere where muck would be put would
23 have an impact on tribal resources.

24 MR. KEELING: Thank you, Dr. Hankins.

25 Mr. Custis.

1 WITNESS CUSTIS: Yes.

2 MR. KEELING: A few points of clarification:

3 You refer in your testimony -- which is
4 Exhibit AquAlliance-202 -- to a 40-foot inside diameter
5 for the tunnel; is that correct?

6 WITNESS CUSTIS: Yes, up to.

7 MR. KEELING: So what is the actual width of
8 the impenetrable obstruction? It's got to be greater
9 than 40 feet; does it not?

10 WITNESS CUSTIS: It's going to be greater
11 because you have casing. You basically have the cement
12 walls.

13 I don't know what the thickness of that is. I
14 would assume that it's more than 6 inches and maybe
15 less than 2 feet. I -- I don't know.

16 MR. KEELING: So it would be the 40 foot plus
17 the -- the -- the barrier created by the walls
18 themselves.

19 WITNESS CUSTIS: The barrier created by the
20 walls. And I didn't get into it but it's also a width,
21 which is two of those tunnels.

22 So you -- you know, if you put them right next
23 to each other -- which you can't -- there's got to be
24 some kind of separation or -- or the tunnels'
25 vibrations will interfere with each other.

1 So now you've got something that's 40-plus
2 feet and maybe 100 or so feet wide.

3 MR. KEELING: Thank you.

4 I'd like some clarification on your use of the
5 term "aquifers."

6 And the reason I ask is that, in your
7 testimony, you used the term repeatedly, and then
8 beginning, I believe, at Page 11, you refer to
9 "Groundwater Subbasin," a term we've heard about from
10 other witnesses in this proceeding.

11 What is the relationship between "aquifers,"
12 as you use the term, and the term sub -- subbasin --
13 "Groundwater Subbasin"?

14 WITNESS CUSTIS: Let me see where I did that.

15 Can you give me -- On Page 11, I'm talking
16 about subbasins.

17 (Exhibit displayed on screen.)

18 WITNESS CUSTIS: Can you just give me a hint
19 of sort of where . . .

20 MR. KEELING: Well, yes.

21 It's -- Halfway down the page, you talk about
22 the fact that the (reading):

23 ". . . EIR notes that the . . . Valley
24 has been subdivided -- has been divided
25 into subbasins . . ."

1 WITNESS CUSTIS: Oh, okay. The Sacramento
2 Valley, yeah.

3 Those are the -- the Bulletin 118 subbasins
4 that are -- that have been determined by DWR, you
5 know . . .

6 Sacramento Valley's basically one big basin.
7 But, administratively, DWR has broken it up into --
8 into pieces. A lot of those boundaries are along
9 rivers, which are essentially a hydrologic boundary.

10 They're used in -- in DWR reports.
11 Particularly now with the SGMA, they classify and
12 evaluate those subbasins.

13 Within those subbasins, you have multiple
14 aquifers, you know, vertically, differential shallow --
15 They -- The mass they produce, I think, have the
16 shallow, and intermediate, and then deep system, which
17 essentially is a number of aquifer zones, and those
18 extend across the valley.

19 So that, particularly with depth -- You know,
20 the shallow one is going to be -- is highly influenced
21 by the streams and the rivers because that's where
22 you've got recharge when you're discharging into the
23 rivers.

24 The deeper you go, the less influence that
25 shallow artificial 118 boundary impacts. And that's

1 going to be one of the issues of a demand set.

2 MR. KEELING: I wanted to make sure that you
3 were not using the term "aquifers" synonymously with
4 "subbasin," and I know that you're not.

5 WITNESS CUSTIS: No.

6 MR. KEELING: At Exhibit 202, AquAlliance-202,
7 Page 4.

8 Could we put that up, Mr. Hunt?

9 (Exhibit displayed on screen.)

10 MR. KEELING: About halfway down the first
11 paragraph, "The WaterFix plan Final EIR . . ."

12 (Exhibit displayed on screen.)

13 MR. KEELING: Yeah. There we go.

14 You see the -- about how halfway down that
15 first paragraph at the top, and a little -- and
16 continuing --

17 Let's see. Yes.

18 -- you refer to -- You say (reading):

19 "The WaterFix . . . EIR . . . does
20 not provide -- doesn't provide . . .
21 hydrogeologic data on the subsurface or
22 aquifer characteristics in the Delta
23 other than 25 widely spaced boring
24 logs . . ."

25 Do you see that along --

1 WITNESS CUSTIS: Yes, yes.

2 MR. KEELING: And a little -- And further on,
3 you say, "There is . . . other published . . .
4 information" that presumably they could have used; is
5 that correct?

6 Take a look --

7 WITNESS CUSTIS: There's a lot of published
8 information on the Delta, yeah.

9 MR. KEELING: If you have -- If you recall,
10 what other published information are you referring to
11 in that paragraph?

12 WITNESS CUSTIS: Well, I cite -- One of them
13 is the Schlemmer which talks a little bit about the --
14 essentially the sediment that comes into the -- into
15 the Delta from the Mokelumne River fans.

16 And I think that the Bulletin 118-3 talks
17 about the -- this Pleistocene last million-year-old
18 sediments coming in from the Sacramento and American
19 River.

20 And there's one which -- on San Joaquin
21 County, which I didn't put up in an exhibit, but
22 there's a Bulletin 146 on -- on -- DWR Bulletin 146 on
23 San Joaquin County, which deals with, you know, the
24 southern part of the -- of the Delta and the valley
25 fill, how it interfaces with the Delta.

1 There's not -- I didn't cite anything that
2 delves specifically with, you know, the -- the flood
3 plain deposits and the mud and -- and that sort of thing
4 in the Delta.

5 MR. KEELING: Are you aware of any other
6 large-scale project involving tunneling, or similar
7 excavation activities, that proceeded with such a lack
8 of detailed subsurface hydrologic information?

9 WITNESS CUSTIS: A tunnel project that . . .
10 I know of . . .

11 Well, I guess -- The answer may be "maybe." I
12 know of a mine project up in Nevada County that was a
13 subsurface mine in which they thought they understood
14 what was going on.

15 And as they proceeded to mine, they hit a
16 fault that they had -- you know, that -- Once they hit
17 it and looked around, they knew it was there, but they
18 had ignored.

19 And that basically drained in all of the water
20 around the mine, and all of the wells, or all of the
21 private homes and everything, went dry into the mine.

22 The mine closed, went bankrupt. And I
23 worked -- Several years ago they were trying to reopen
24 the mine and said that they wouldn't do that again, and
25 Nevada County wasn't -- didn't go for it.

1 I know that -- And I cite in my -- in here,
2 which I don't know if they -- There's a big dig, or a
3 dig, in Seattle where they hit a well. And you can go
4 to the -- to the, you know, web page, I think I listed
5 in this thing, and they talk about what chaos that
6 caused.

7 But it turns out that well was known. They
8 just didn't bother to look at the records.

9 (Timer rings.)

10 WITNESS CUSTIS: They had been drilled -- It
11 was one of the wells that was drilled during the
12 initial project exploration.

13 MR. KEELING: May I have five more minutes?

14 CO-HEARING OFFICER DODUC: All right.

15 MR. KEELING: Well, would you agree that this
16 additional hydrologic information, once acquired, could
17 reveal significant potential adverse effects on public
18 trust resources and on the public interest not known
19 now?

20 WITNESS CUSTIS: Yes. I think -- I think the
21 concern that I have is that we do have 25 borings out
22 there, from what I read in the -- in the Final EIR.

23 There may be -- You know, those are on one per
24 mile. They're proposing one per thousand feet, so
25 there may be several hundred-plus borings.

1 When you start having that kind of
2 information, now you start understanding the
3 groundwater system physically, you know, the
4 characteristics.

5 What you don't have yet -- and unless you go
6 and put some monitoring wells in -- is, you don't have
7 water level information and you don't have quality
8 information.

9 And since you're drilling -- you know,
10 tunneling through an existing well field where, in one
11 of the -- I think I cite in here one of the studies
12 that was done by the USGS for down in the Stockton
13 area. You have saline shallow waters that are causing
14 a problem for wells.

15 We don't . . . I'm not sure that we know that
16 that exists in the tunnel right away simply because you
17 haven't looked.

18 And I'm a little concerned that, if you don't
19 go in there and set a baseline before you start
20 tunneling, then you're not going to know what -- you
21 know, if there's an impact that shows up, somebody's
22 well salts up, you know, you're not going to know
23 whether that was caused by the tunnels or that was
24 there already.

25 MR. KEELING: Wouldn't you like to have that

1 information before rather than after you give the green
2 light to the Project itself?

3 WITNESS CUSTIS: I think that the
4 landowners -- In my experience as -- as a -- in
5 regulating, working for the Water Boards, State Water
6 Board, Regional Board, and even others, that the
7 landowner will be the one who is given the cleanup
8 abatement order to deal with the problem. And if they
9 don't think they caused the problem, then they have the
10 duty to figure out who did.

11 The Water Board's not going to make that
12 investigation. I wrote orders that way, just said,
13 "Gee, that's a problem. You're going to have to figure
14 it out. If you think these guys next door caused
15 pollution on your property, if you can come up with the
16 evidence, we'll be glad to hit them with an order.
17 But, right now, it's on your land and you will do
18 something about it."

19 And that I'm concerned about.

20 MR. KEELING: Take a look at Page 17.

21 (Exhibit displayed on screen.)

22 MR. KEELING: Last paragraph.

23 (Exhibit displayed on screen.)

24 MR. KEELING: And before we get -- get there.

25 In your reviewing the Proposed Project, were

1 you surprised to discover that evaluation of how gas
2 fields along Alternative 4 could affect tunnel
3 construction? Had not been completed, that study had
4 not been completed. Were you surprised?

5 WITNESS CUSTIS: I would. I think that the --
6 There was a discussion about health and safety for the
7 workers, and that's a paramount thing during the
8 construction.

9 But . . . the issue to me is, how many of
10 those -- They know 15 wells. I'm not quite sure what
11 the criteria for that were, whether those were in
12 direct tunnel alignment, whether there's a spacing, you
13 know, a pathway.

14 The maps that I put up kind a show there's a
15 lot of wells in there, but -- You know, if you build a
16 quarter mile or a mile, you know, pathway, you're going
17 to have more than 15 in there.

18 So the issue is that, in looking at -- You
19 go -- You go to DOGGR's website, and about abandonment
20 of wells, they have a public flier that says, "We have
21 the records of how these wells have been abandoned.
22 You won't come in and look at them, you know, you can
23 come in and look at them and decide what needs to be
24 done."

25 You only got 15 wells. I would think that you

1 could go down the DOGGR -- They're right down the
2 street here; I used to work for the same Department,
3 not for DOGGR but for conservation -- and look at the
4 wells and decide what are you going to have to do with
5 those 15 wells, maybe more, as far as working them,
6 abandoning them.

7 We were talking at lunch. You're going to
8 have to cut the -- If they are in the tunnel path,
9 you're going to have to cut those wells off below the
10 tunnel. You're not going to drill through them.

11 That's what they did up in Seattle. They
12 destroyed the machine. They had to take it up on the
13 ground and fix it.

14 So you're going to have to cut them off. And
15 then you're going to have to re -- essentially
16 reabandon the well. And the question is, well, how
17 well is it abandoned right now? If you look at the
18 regulations, the regs in -- for DOGGR only require that
19 you seal the upper 20 -- you plug the upper 25 feet of
20 a well.

21 Now, at depth, you have to seal the fresh
22 water, salt water, and all the salt waters, you know,
23 and the fresh -- and the oil zones and stuff, you have
24 to plug those up.

25 But between that fresh water interface --

1 which may be several thousand feet down -- and the
2 surface, they only have to have a 25-foot plug at the
3 top.

4 Is that the way they did it? That's the
5 requirements.

6 So until you look at the well log, you know,
7 the abandonment log, and understand, what is it I've
8 got to do here, and who's going to do it?

9 Are you going to -- That well is owned by
10 somebody. It may be bankrupt but it is not DWR's well.

11 Are they going to take ownership of that well?

12 MR. KEELING: I appreciate --

13 (Timer rings.)

14 MR. KEELING: I appreciate it.

15 Thank you, Mr. Custis.

16 CO-HEARING OFFICER DODUC: Miss Womack.

17 And how much time do you anticipate needing?

18 MS. WOMACK: No more than 15.

19 So my -- my first questions are for

20 Dr. Hankins.

21 CROSS-EXAMINATION BY

22 MS. WOMACK: Let's see.

23 You showed -- One of your slides in your
24 presentation showed a map with the Native American
25 sites near Clifton Court that were -- I wanted to look

1 at that map.

2 Do you -- Would you call out that number for
3 me?

4 WITNESS HANKINS: This would be on AQUA-274.
5 I'm thinking it's Slide 11, based on my records here.

6 MS. WOMACK: Right. Right. Because you
7 started your life at --

8 (Exhibit displayed on screen.)

9 MS. WOMACK: Yes, this would be it. Thank
10 you.

11 Because you started your life -- Well, you
12 said you started, almost as soon as you could walk,
13 swimming at Kings island --

14 WITNESS HANKINS: Right.

15 MS. WOMACK: -- correct?

16 And what year was that?

17 WITNESS HANKINS: That would be 1975.

18 MS. WOMACK: Okay.

19 WITNESS HANKINS: Yeah.

20 MS. WOMACK: So this forebay --

21 WITNESS HANKINS: It forced me to get my
22 agent, for the record.

23 MS. WOMACK: Oh, sorry.

24 WITNESS HANKINS: That's all right.

25 MS. WOMACK: But -- So the -- the Clifton

1 Court Forebay already existed.

2 WITNESS HANKINS: That's correct.

3 MS. WOMACK: It might not have looked
4 completely like this --

5 WITNESS HANKINS: Yeah.

6 MS. WOMACK: -- but it existed.

7 So the stars, I had questions.

8 Is . . . So the star where it's Monoju, is
9 that -- There's a rookery.

10 And are -- Are those -- Are those Native
11 American important sites --

12 WITNESS HANKINS: Those --

13 MS. WOMACK: -- or --

14 WITNESS HANKINS: Those are all traditional
15 cultural resources.

16 MS. WOMACK: Okay. And how -- Is there an age
17 that those -- is associated with them and that you can
18 associate with them?

19 WITNESS HANKINS: I -- I mean, I would say in
20 terms of use, those resources have been there for a
21 while.

22 The site -- For instance, let's just take
23 where the Nettles and Creeping Wild Rye is at, which is
24 where the tunnels would surface in that field.

25 MS. WOMACK: Yes.

1 WITNESS HANKINS: That had been formerly used
2 in agriculture in that particular area before Clifton
3 Court Forebay.

4 MS. WOMACK: Yes.

5 WITNESS HANKINS: One of the resources that I
6 used to go out and collect around this time of year was
7 Wild -- what we call the Wild Asparagus because it was
8 left over from the farm that was there.

9 But it had recovered and so --

10 MS. WOMACK: In that area.

11 WITNESS HANKINS: In that particular area.

12 So the Nettles, and the Creeping Wild Rye, and
13 so forth, all had to come back in to that site.

14 Raptors, like Marsh Hawks, and so forth,
15 nesting on the ground in those areas.

16 And all those things are part of --

17 MS. WOMACK: Pretty significant.

18 WITNESS HANKINS: Yes, um-hmm.

19 MS. WOMACK: Yeah.

20 And then I noticed down at the Linak --

21 WITNESS HANKINS: Yeah.

22 MS. WOMACK: -- down there.

23 WITNESS HANKINS: Yeah.

24 MS. WOMACK: I'm -- Does that -- Do you know
25 how far that site dates back?

1 WITNESS HANKINS: That is a -- as far as I'm
2 aware -- is a natural feature. It hasn't been diked
3 off and no levee rounded.

4 I don't know based on the reworking of the
5 Delta; right? Because the Delta wasn't full of
6 islands. It was different habitats.

7 MS. WOMACK: Before they --

8 WITNESS HANKINS: I don't know when --

9 MS. WOMACK: -- dredged.

10 WITNESS HANKINS: -- when Linak was cut off
11 from -- as a slough and part of the slough had been
12 there.

13 MS. WOMACK: I think that has to do with
14 Western Canal, that straight canal. They call it West
15 now but it's Western.

16 WITNESS HANKINS: Yeah.

17 MS. WOMACK: What I wanted to know is, why
18 doesn't this map show a star in Clifton Court Forebay
19 where there were Native Americans before?

20 WITNESS HANKINS: Right.

21 This is based on -- on current use. This
22 is -- All that I'm trying to show --

23 MS. WOMACK: Ah.

24 WITNESS HANKINS: -- is the -- is the
25 continuity and current use of culture; right?

1 MS. WOMACK: So this is -- Okay.

2 And what about historical sites that were
3 taken by the Clifton Court Forebay?

4 WITNESS HANKINS: Yeah. So, as I mentioned in
5 the testimony, a large part of Clifton Court Forebay
6 would have been vernal pools and alkali basins.

7 And you still see some remnants of that
8 habitat in --

9 MS. WOMACK: Um-hmm.

10 WITNESS HANKINS: -- the area, with Salt Brush
11 on the South Side, and on -- I'm trying to figure -- I
12 guess it would be the westside near . . . and north
13 of -- I guess -- What is that? Indian Slough there?
14 Is that what it's called where the --

15 MS. WOMACK: Or Italian Slough?

16 WITNESS HANKINS: Italian Slough --

17 MS. WOMACK: Italian Slough, yeah.

18 WITNESS HANKINS: -- yeah.

19 There's lots of different -- So Italian
20 Slough, that straight section, there's also Salt Brush
21 in those areas, Salt Grass.

22 MS. WOMACK: Um-hmm.

23 WITNESS HANKINS: Clifton Court Forebay's
24 surrounded by those resources and the natural areas.
25 But the forebay itself cuts into the sandstone

1 formations as underlying geology in those areas.

2 So the vernal pool resources themselves are
3 significant and they're -- they're part of our story.

4 But being the Clifton Court Forebay is there,
5 and I never had the opportunity in my lifetime to know
6 what it was before, it's hard for me to know --

7 MS. WOMACK: Right.

8 WITNESS HANKINS: -- that past.

9 MS. WOMACK: Well, my -- my father grew up
10 in -- Well, I saved the vernal pools at Mather Field
11 with my fifth graders --

12 WITNESS HANKINS: Yeah.

13 MS. WOMACK: -- so I'm well aware of vernal
14 pools.

15 My father says that our property didn't
16 actually have vernal pools. It was a little bit
17 different. He grew up in Lodi with a lot of vernal
18 pools.

19 But, anyway, moving along because I wouldn't
20 want to . . .

21 Because -- Is there -- there -- My father also
22 picked up a lot of -- of pieces of Indian mortar and
23 pestle in the forebay area.

24 WITNESS HANKINS: Um-hmm.

25 MS. WOMACK: And I was wondering if that -- Do

1 you know, has that been documented and accounted for?

2 CO-HEARING OFFICER DODUC: Dr. Hawkins --

3 Hankins -- sorry -- please wait.

4 Miss Ansley.

5 MS. ANSLEY: I would just object to, move to
6 strike, any testimony regarding Native American sites
7 from Miss Womack on Clifton Court Forebay.

8 I'm, of course, happy for Dr. Hankins to
9 answer questions that he --

10 CO-HEARING OFFICER DODUC: Unless it is the
11 foundation for her question.

12 MS. WOMACK: Well, I just -- I'm very curious
13 what Dr. Hankins knows of the -- of the artifacts that
14 we found.

15 And I would be glad to bring them to you. I
16 would love to.

17 WITNESS HANKINS: Yeah. I'm not -- I'm not
18 familiar with all of the things that are out there.

19 I will say this: In my explorations as a kid
20 out there, I came across some very powerful things
21 which I won't describe here.

22 MS. WOMACK: Um-hmm.

23 WITNESS HANKINS: But there are resources in
24 and around the field; there are resources that are
25 comprised and composed in the levees.

1 MS. WOMACK: Um-hmm.

2 WITNESS HANKINS: The specific details of site
3 records that DWR may have had access to, unfortunately,
4 don't always make it to resources that tribes have
5 access to --

6 MS. WOMACK: Um-hmm.

7 WITNESS HANKINS: -- despite that material's
8 supposed to be provided to us through the information
9 centers, which this would be the -- the Central
10 California, I believe, Resource Center in this area out
11 of Sonoma State.

12 MS. WOMACK: Um-hmm.

13 WITNESS HANKINS: We would have to -- You
14 know, as -- as a tribal individual, I would have to pay
15 for that information to know what would have been there
16 if there were sites before -- before Clifton Court
17 Forebay was created.

18 However, I know that the areas to the west,
19 southwest, and areas surrounding there, I'm -- I'm
20 familiar with some of the things that are there.

21 MS. WOMACK: Okay. Yeah. No, this -- this
22 was my Wild Asparagus fields.

23 But -- So do you know: Were -- Were the
24 Native American tribes contacted before the Clifton
25 Court Forebay was built?

1 WITNESS HANKINS: No. Clifton Court Forebay
2 was built before the -- the development of CEQA and
3 NEPA. And so -- And at that time, many of the
4 federally recognized tribes in this area were not --
5 they did not have status, and so, therefore, there
6 would not have been consultation for that.

7 MS. WOMACK: That's a shame.

8 WITNESS HANKINS: Yeah, it is a shame.

9 And I would even further say that -- that a
10 lot of the development of reservoirs in or around
11 there, such as Los Vaqueros and infrastructures that's
12 associated with it, have had tremendous impacts without
13 having a huge amount of tribal involvement, including
14 the expansion of Los Vaqueros, which failed to do a
15 sacred land search. And that was brought to the
16 attention of Bureau of Reclamation and they haven't
17 followed through on it.

18 MS. WOMACK: But that was built in the '90s
19 well after those were established.

20 WITNESS HANKINS: The -- Yes.

21 So in development of Los Vaqueros, there was
22 consultation with tribes, not necessarily the right
23 individuals and then in the construction -- expansion
24 project for Los Vaqueros.

25 And why I bring Los Vaqueros --

1 MS. WOMACK: Because that's right now.

2 WITNESS HANKINS: -- up is that it connects
3 to -- it ultimately connects to waters in this area as
4 well. And the same parties in terms of Bureau of
5 Reclamation and Department of Water Resources'
6 involvement.

7 MS. WOMACK: So they're violating --

8 CO-HEARING OFFICER DODUC: Hold on.

9 Miss Ansley.

10 MS. ANSLEY: I'd like to lodge an objection to
11 the -- this stream of testimony on outreach to Native
12 American tribes at the time the Clifton Court Forebay
13 was constructed.

14 I don't believe that is relevant to anything
15 to do with the construction or approval of the
16 California WaterFix. And then, separately, also
17 Los Vaqueros is a -- as far as I know, is at a Contra
18 Costa site.

19 And I also argue that the relevance of the
20 outreach that occurred with the construction of the
21 Los Vaqueros -- or raising the Los Vaqueros Reservoir
22 is also highly irrelevant to this hearing proceeding.

23 CO-HEARING OFFICER DODUC: I would imagine,
24 Miss Womack, that your inquiry about outreach is linked
25 to outreach for the WaterFix that --

1 MS. WOMACK: Well, absolutely. We're going to
2 use the same --

3 CO-HEARING OFFICER DODUC: Exactly.

4 MS. WOMACK: We're -- And we're not --

5 CO-HEARING OFFICER DODUC: Okay.

6 MS. WOMACK: Thank you.

7 CO-HEARING OFFICER DODUC: So overruled with
8 respect to the outreach.

9 What about the second objection?

10 MS. ANSLEY: I'm sorry?

11 CO-HEARING OFFICER DODUC: It was Contra
12 Costa.

13 MS. ANSLEY: Well, there was a line of
14 questioning about the outreach with regards to Clifton
15 Court Forebay, but when it was constructed, nothing to
16 do with the WaterFix now.

17 And then there was --

18 CO-HEARING OFFICER DODUC: I believe it
19 goes --

20 MS. ANSLEY: Which I believe was before his
21 time.

22 And then Los Vaqueros --

23 CO-HEARING OFFICER DODUC: That one is
24 overruled.

25 MS. ANSLEY: Oh, I'm sorry.

1 CO-HEARING OFFICER DODUC: I believe
2 Miss Womack throughout the course of this hearing has
3 been trying to link between past practices and
4 past . . .

5 MS. WOMACK: And future. Past and future.

6 CO-HEARING OFFICER DODUC: . . . experiences
7 in --

8 MS. WOMACK: Yes.

9 CO-HEARING OFFICER DODUC: -- the future.
10 So --

11 MS. WOMACK: Um-hmm.

12 CO-HEARING OFFICER DODUC: -- it's in line of
13 that.

14 And your second objection?

15 MS. ANSLEY: Then there was testimony
16 regarding the outreach for projects implemented at the
17 Los Vaqueros Reservoir, which I believe is wholly
18 unconnected from the California WaterFix.

19 MS. WOMACK: I'm sorry. I thought that was a
20 State or -- or Federal Project.

21 CO-HEARING OFFICER DODUC: We will --

22 MS. ANSLEY: I -- My understanding is, it's --
23 it's Contra Costa, but subject to correction.

24 CO-HEARING OFFICER DODUC: Do you know,
25 Dr. Hankins?

1 WITNESS HANKINS: So, there -- I received a
2 letter from the Bureau of Reclamation last year seeking
3 consultation for boring sites that would connect
4 between Skinner -- the Skinner Fish Lab area, Bethany
5 Reservoir, heading north towards Byron. And then that
6 would tie into the Contra Costa Water District canals
7 to supplement water into Los Vaqueros.

8 Therefore, this Project would provide water
9 that would be there, not directly stated in the -- in
10 the WaterFix itself, but is a supplement component to
11 it. It's all the same water coming from the same
12 place.

13 CO-HEARING OFFICER DODUC: I'll allow it, and
14 it goes to weight.

15 MS. WOMACK: Thank you.

16 So . . . Gosh. What were my questions there?

17 Well, I -- You know, I -- What I really wanted
18 to know -- Let's see.

19 And -- And, you know, I'm just going to ask
20 this because the Federal is involved here.

21 Before the CVP was built, were any of the
22 tribes notified so that they could do -- you know,
23 since you are -- you know the history of the area?

24 WITNESS HANKINS: You're asking if the -- if
25 the tribes were involved in the CV -- in the

1 development of the CVP?

2 MS. WOMACK: In the 1950s.

3 WITNESS HANKINS: 19 . . . So CVP dates back
4 in terms of development of Shasta Reservoir.

5 MS. WOMACK: Oh. I'm talking about when they
6 took our land in the '50s for the -- the Delta-Mendota
7 Canal.

8 WITNESS HANKINS: For the construction of
9 Clifton Court, yeah.

10 MS. WOMACK: Yeah. It wasn't my land but
11 it -- you know, it's land.

12 WITNESS HANKINS: Right.

13 I'm not aware of any -- I'd have to dig back
14 in the history of that. But I seriously doubt that any
15 consultation occurred because there was no requirement
16 for it at that time under State law.

17 MS. WOMACK: I see.

18 WITNESS HANKINS: But I think in -- And what I
19 suggested in my testimony is that we -- we've never
20 given up our rights to the land.

21 MS. WOMACK: Um-hmm.

22 WITNESS HANKINS: We still maintain our right
23 to stewardship of these lands, and that, at least under
24 current Federal law that was developed in 1973, we have
25 the right to mandate in our aboriginal territories that

1 we have inclusion of that.

2 MS. WOMACK: Okay.

3 WITNESS HANKINS: State law also supports that
4 now.

5 MS. WOMACK: Right. Right.

6 So how will the expanded Clifton Court
7 Forebay -- It's going to -- Right now, there's supposed
8 to be a north and a south.

9 How will it affect these important Native
10 American sites?

11 WITNESS HANKINS: Well, one would, obviously,
12 be the loss of the sites that I have indicated on these
13 maps here, which would -- which would be detrimental.

14 There's also the -- the connection . . .

15 I mean, there's a lot to this. There's a lot
16 of ways I could answer this based on direct, indirect
17 and cumulative impacts.

18 Direct impacts, obviously, there's the
19 immediate loss.

20 MS. WOMACK: Right.

21 WITNESS HANKINS: The -- There's also the
22 direct impacts to our creation which lies to the west
23 of here, and the water that's -- that -- that flows
24 from those springs through the vernal pools and out
25 into -- well, would have connectivity to Old River.

1 MS. WOMACK: Um-hmm.

2 WITNESS HANKINS: And that's -- that's further
3 impacted.

4 So there's no correction to that.

5 MS. WOMACK: Right. So it's lost forever.

6 WITNESS HANKINS: It's lost forever, or at
7 least until sea-level rise gets the best of us all and
8 corrects itself.

9 MS. WOMACK: Yeah.

10 WITNESS HANKINS: Right?

11 MS. WOMACK: But, culturally, that --

12 WITNESS HANKINS: Yeah.

13 MS. WOMACK: -- how does that affect you?

14 WITNESS HANKINS: Yeah.

15 Culturally, that affects me because --
16 personally, because of these sites and not being able
17 to -- to pass that on in my family.

18 I have a responsibility to look out for the
19 future generations. That is what our -- our
20 traditional law says, is that we have an obligation to
21 those future generations.

22 And we are supposed to leave the world in a
23 better place than -- than we have it, as good or
24 better.

25 MS. WOMACK: Right. That was my father's

1 thinking as well. It's -- It's -- It's universal of
2 good people, I think.

3 WITNESS HANKINS: Yeah.

4 I don't see this as me sitting here in front
5 of everybody saying this, that if I were making a
6 decision on this for a regulatory agency, or any
7 agency, how am I making this a better place for
8 anybody?

9 MS. WOMACK: Absolutely. Thank you.

10 Mr. Custis, I have just a few questions.

11 Thank you so much, Dr. Hankins.

12 WITNESS HANKINS: Thank you.

13 MS. WOMACK: You've said that the art -- the
14 surface -- Are the surface water and the groundwater
15 hydrologically connected? You've said --

16 WITNESS CUSTIS: Yes.

17 MS. WOMACK: -- yes. Yeah.

18 So if the salinity encroachment happens to the
19 California WaterFix, and the surface and the
20 groundwater are hydrologically connected, won't that --
21 won't that affect the wells that are in that -- in the
22 ground -- that are part of the groundwater? With
23 salinity?

24 WITNESS CUSTIS: That's a concern, is that
25 that barrier is going to change how groundwater flows.

1 MS. WOMACK: Um-hmm.

2 WITNESS CUSTIS: And without the baseline
3 information from existing wells, the same wells have
4 high TDS, maybe some of them are great.

5 And without monitoring -- You really need to
6 monitor the vertical gradient as well as the surface
7 movement so that you know did the water go up or did it
8 go down, did it go horizontal? What's going on?
9 What's its quality today?

10 Until we know that, all those wells that are
11 around there are -- have potential to be impacted by
12 that redirection. Whether it happened or not, without
13 data, you'll never know.

14 MS. WOMACK: Right. Right.

15 (Timer rings.)

16 MS. WOMACK: I just have one or two more
17 questions.

18 So would it affect the drinking water wells at
19 marinas? Which they're required by law at marinas to
20 have drinking water available through the -- well, it's
21 through the wells.

22 MS. ANSLEY: Objection: Vague and ambiguous
23 as to location.

24 Now we're just talking about marinas. I'm not
25 sure this --

1 MS. WOMACK: Oh, marinas in the Delta. Sorry.

2 MS. ANSLEY: Any specific --

3 MS. WOMACK: Sure. Snug Harbor --

4 MS. ANSLEY: -- impact? Okay.

5 CO-HEARING OFFICER DODUC: One at a time.

6 MS. WOMACK: -- Del's -- Del's Boat Harbor,
7 River's End.

8 WITNESS CUSTIS: I don't know exactly where
9 those wells are --

10 MS. WOMACK: Um-hmm.

11 WITNESS CUSTIS: -- where they are screened,
12 and what intervals they're screened in.

13 I -- A number of years ago, when I worked for
14 a consulting company, there was a well down in
15 Discovery Bay or something that they were trying to
16 figure out how to make it usable because it was salting
17 up. And so the owner of the companies gave them some
18 ideas, and I don't know whether it succeeded or not.

19 But that's -- I cited a report in there that
20 the USGS did -- it's a little -- maybe a little farther
21 away -- about water quality pumps --

22 MS. WOMACK: Um-hmm.

23 WITNESS CUSTIS: -- and salinity and stuff.

24 So I think that's -- Again, go back to
25 baseline. What's going on today? And what is the --

1 are the groundwater levels? Which water -- way is
2 water flowing? So you understand.

3 If that --

4 MS. WOMACK: Right.

5 WITNESS CUSTIS: -- well in the marina starts
6 getting salted up. Is it because of the -- of the --

7 MS. WOMACK: WaterFix.

8 WITNESS CUSTIS: -- WaterFix --

9 MS. WOMACK: Yeah.

10 WITNESS CUSTIS: -- or is it because of
11 something else?

12 Without data, you have no way of knowing. And
13 it's too late after the fact to go in there and try and
14 understand what changed.

15 MS. WOMACK: So, in your opinion, because this
16 is a recre -- this is about recreation, shouldn't
17 the -- the -- the marinas in the Delta be -- being
18 monitored now if we're serious about, you know, not
19 harming recreational users of water?

20 WITNESS CUSTIS: I don't know what the quality
21 of their -- of their water is.

22 MS. WOMACK: Yeah.

23 WITNESS CUSTIS: I would -- If I was owner of
24 that well and people around me -- it's a good well,
25 it's no --

1 MS. WOMACK: Um-hmm.

2 WITNESS CUSTIS: -- problem today -- people
3 around me were starting to see problems. And you know
4 it, because somebody says, "I've got to drill a new
5 well," you know, spend a half a million bucks to drill
6 a new well.

7 I would be asking questions with monitoring
8 wells. And when I worked for the Regional Board, we
9 had that with cities that were contaminated, we were
10 having monitoring wells put in specific areas to try
11 and track that plume, and try to understand whether
12 that -- that contaminant would be getting down to the
13 Zone of the new well.

14 MS. WOMACK: Right.

15 WITNESS CUSTIS: They build a new well and try
16 and hope it was deep enough to avoid contamination, but
17 we -- without sampling, we did not know what was going
18 on.

19 MS. WOMACK: Okay. Yeah. No. Because we're
20 going to harm the recreational people if we don't do
21 this before -- before we build.

22 WITNESS CUSTIS: Right. I think that's the
23 basic -- the concern that I have is, you don't have a
24 commitment for baseline collecting, and then monitoring
25 during the Project, which is going to go on for

1 decades. I mean, it's going to be -- maybe not a
2 hundred years.

3 But -- But without that comparison
4 information --

5 MS. WOMACK: Um-hmm.

6 WITNESS CUSTIS: -- you can't understand
7 what's changed. It may be polluted right now.

8 MS. WOMACK: Sure. Sure.

9 WITNESS CUSTIS: So the question --

10 MS. WOMACK: But you need a baseline.

11 WITNESS CUSTIS: Yeah. You may be having a
12 well that's dumping in the shallows and, because you
13 don't have a water well in the area, you don't know
14 that plume is there if its polluted because it's out,
15 you know, 2 miles away from there.

16 MS. WOMACK: I understand.

17 WITNESS CUSTIS: But --

18 CO-HEARING OFFICER DODUC: But let's wrap up,
19 please.

20 MS. WOMACK: Okay.

21 WITNESS CUSTIS: Yeah.

22 MS. WOMACK: Okay. That -- That was my
23 last -- Oh, my last was about the contour maps
24 existing.

25 And you said that there are some and they're

1 in your -- your report, as far as knowing how things
2 get mushed together, I guess.

3 WITNESS CUSTIS: Well, there's -- there's --
4 The contour maps that I put in my report come from --
5 well, there's two of them -- but come from DWR.

6 MS. WOMACK: The one that wasn't complete.

7 WITNESS CUSTIS: They have a GIS website that
8 you can go in, it's very nice, and you just, you know,
9 tell them you want contours, or you want points, or you
10 want differences, contour differences, contour points.

11 MS. WOMACK: Okay.

12 WITNESS CUSTIS: And they produce a map and
13 you can -- you can screen them. And that's how I made
14 those maps.

15 The problem with the maps in the area is, you
16 can't read the contours. It's not until you get into a
17 really focused area to make the contours come out
18 because, otherwise, you can't read it.

19 CO-HEARING OFFICER DODUC: What was the
20 question again?

21 MS. WOMACK: Well, with the -- DWR hasn't --
22 You've said you have a big gap in your map and you
23 said, well, this --

24 WITNESS CUSTIS: They don't put that in the
25 public information. I haven't found that in the Delta,

1 where there's a big hole --

2 MS. WOMACK: Right.

3 WITNESS CUSTIS: -- in the data. And I don't
4 know why that's missing.

5 MS. WOMACK: Okay.

6 WITNESS CUSTIS: I think depending upon the
7 year that you select, that -- those contours move in
8 and out of that sort of blank boundary, you know. It
9 kind of moves --

10 MS. WOMACK: Oh, okay.

11 WITNESS CUSTIS: But -- But it never goes all
12 the way across the Delta. And it may be a problem of
13 the number of sample locations. You know, if you've
14 only got a dozen wells in a big area that you're
15 allowed to sample. See, they have to take what people
16 allow them to sample.

17 MS. WOMACK: Right.

18 CO-HEARING OFFICER DODUC: Thank you,
19 Mr. Custis.

20 MS. WOMACK: Okay. Well, yeah. No. So it's
21 incomplete information.

22 CO-HEARING OFFICER DODUC: Thank you --

23 MS. WOMACK: Thank you.

24 CO-HEARING OFFICER DODUC: -- Miss Womack.

25 MS. WOMACK: My pleasure.

1 CO-HEARING OFFICER MARCUS: You can chat
2 after.

3 CO-HEARING OFFICER DODUC: Yes. I'm sure
4 he'll be happy to talk to you.

5 Any redirect, Mr. Jackson?

6 MR. JACKSON: No.

7 CO-HEARING OFFICER DODUC: I love you,
8 Mr. Jackson.

9 (Laughter.)

10 CO-HEARING OFFICER MARCUS: Ah.

11 CO-HEARING OFFICER DODUC: Thank you,
12 Mr. Custis, Dr. Hankins and the other panel members,
13 too, for sticking around even though I think you were
14 held hostage because your driver is still up here.

15 (Panel excused.)

16 CO-HEARING OFFICER DODUC: All right. Do you
17 need a break, Candace?

18 THE REPORTER: (Shaking head.)

19 CO-HEARING OFFICER DODUC: We can stand up and
20 sort of stretch a little bit, and I would ask Restore
21 the Delta to get ready.

22 And as that's happening, maybe I can get some
23 time estimates on direct as well as cross.

24 MS. ROBERTSON: Good afternoon. Nina
25 Robertson on behalf of Restore the Delta.

1 We estimate an hour and 10 minutes for the
2 direct.

3 CO-HEARING OFFICER DODUC: All right. Cross?

4 I believe yesterday DWR said 60 minutes. Is
5 that still the case?

6 MR. MIZELL: I think yesterday we had
7 estimated over an hour.

8 CO-HEARING OFFICER DODUC: Oh.

9 MR. MIZELL: I'm going to do my best to -- to
10 trim it down to would be an hour or just over.

11 But I think it really depends upon the depth
12 that the witnesses express in some of the questions.

13 CO-HEARING OFFICER DODUC: Mr. Ruiz had
14 requested 30 minutes.

15 And Miss Meserve had requested 15 with the
16 caveat that she may not be here.

17 Are you now subbing for her, Mr. Keeling?

18 MR. KEELING: I may have to do that.

19 And I'd like to reserve 15 minutes for myself.

20 Mr. Ruiz is in Stockton, and he is watching,
21 and he's doing the math.

22 He's heard the estimate from the -- on direct.
23 He's heard the estimate from DWR, and --

24 CO-HEARING OFFICER DODUC: If he's here, he's
25 here; if he's not, he's not.

1 MR. KEELING: He wants to know if he needs to
2 drive to Sacramento right now.

3 CO-HEARING OFFICER DODUC: Well, let me finish
4 getting time estimates.

5 MR. KEELING: All right.

6 CO-HEARING OFFICER DODUC: Mr. Jackson.

7 MR. JACKSON: If this were the start of the
8 morning, I would tell you 30 minutes.

9 If this is -- If this is now, I'll do it in
10 15, but I'm kind of in the same place with Mr. Ruiz.

11 If we're going -- If we don't have to call
12 these witnesses back, because I know they're from a
13 long, way away, I'd like to do that, so --

14 CO-HEARING OFFICER DODUC: What I have decided
15 after the last two days of going to 6 o'clock that --

16 MR. JACKSON: Right.

17 CO-HEARING OFFICER DODUC: -- that is
18 something that you guys can take into account.

19 I mean, a lot of the cross that's been
20 conducted has been friendly cross. So, you know, you
21 guys can work that out.

22 We are from now on going to be adjourning at
23 5 o'clock. And if it's inconvenient for the witnesses,
24 I apologize, but that's just the schedule we're going
25 to follow from now on.

1 MR. KEELING: Well, what I was -- what I was
2 saying is that I know it's going to get blamed on the
3 lawyers by the Engineers.

4 So I won't ask questions if everybody gets to
5 go home tonight. I'll wait till 5:00 and see.

6 CO-HEARING OFFICER DODUC: Ah. You guys will
7 have to work it out amongst yourself.

8 We are starting at 9:30, we will be taking our
9 lunch break at noon, we will be adjourning at 5 p.m.

10 And with all the friendly cross that has been
11 conducted during this hearing, I'll leave it to you
12 guys to work it out.

13 With that, then, I will turn -- I don't have
14 names for both of you.

15 MS. ROBERTSON: It's Nina Robertson. I think
16 the sign's being made right now.

17 CO-HEARING OFFICER DODUC: Okay.

18 MS. ROBERTSON: Good afternoon. My name is
19 Nina --

20 CO-HEARING OFFICER DODUC: Before you do,
21 first of all, you submitted a written opening
22 statement.

23 Do you wish to provide an oral opening
24 statement?

25 MS. ROBERTSON: I will just do the

1 introductions now.

2 We will -- We will not be providing a -- an
3 introduction --

4 CO-HEARING OFFICER DODUC: All right.

5 MS. ROBERTSON: -- right now.

6 CO-HEARING OFFICER DODUC: And before you do
7 that, I would ask everyone to please stand and raise
8 your right hands.

9 Barbara Barrigan-Parrilla,

10 Gary Mulcahy,

11 Roger Mammon

12 and

13 Tim Stroshane,

14 called as witnesses by the Restore the Delta,
15 having been duly sworn, were examined and
16 testified as follows:

17 CO-HEARING OFFICER DODUC: Thank you so much.

18 And, again, thank you for your patience with
19 us today.

20 MS. ROBERTSON: Good afternoon. My name is
21 Nina Robertson and with me is Michelle Ghafar.

22 We are representing Restore the Delta and we
23 have four witnesses to prevent testi -- present
24 testimony today. In order, they are Tim Stroshane,
25 Barbara Barrigan-Parilla, Roger Mammon and Gary

1 Mulcahy.

2 And we will estimate that we will take in
3 total an hour and 10 minutes.

4 Okay. So I'll first start with Mr. Stroshane.

5 DIRECT EXAMINATION BY

6 MS. ROBERTSON: Mr. Stroshane, can you please
7 state and spell your name.

8 WITNESS STROSHANE: My name is Tim Stroshane,
9 S-T-R-O-S-H-A-N-E.

10 MS. ROBERTSON: And, Mr. Stroshane, is RTD-1 a
11 true and correct copy of your Statement of
12 Qualifications?

13 WITNESS STROSHANE: Yes, it is.

14 MS. ROBERTSON: And is it also true that you
15 also prepared comments for the Environmental Water
16 Caucus responding to the master responses of the
17 Final EIR/EIS for California WaterFix?

18 WITNESS STROSHANE: Yes, I did.

19 MS. ROBERTSON: So would you consider that an
20 additional aspect to your qualifications?

21 WITNESS STROSHANE: Yes, I do.

22 MS. ROBERTSON: Have you reviewed RTD-12?

23 WITNESS STROSHANE: Yes.

24 MS. ROBERTSON: Is it a true and correct copy
25 of your written testimony?

1 WITNESS STROSHANE: Yes, it is.

2 MS. ROBERTSON: And does it accurately reflect
3 your knowledge and belief regarding the matters
4 discussed?

5 WITNESS STROSHANE: Yes.

6 MS. ROBERTSON: Did you prepare the testimony?

7 WITNESS STROSHANE: Yes, I did.

8 MS. ROBERTSON: Thank you.

9 And would you like to state any corrections
10 for the record with respect to your written testimony?

11 WITNESS STROSHANE: Yes. I have three
12 corrections to the record.

13 In Restore the Delta's Exhibit Identification
14 Index, RTD-156 refers to results from RTD-155. The
15 correct reference to results is to SWRCB-102.

16 The second correction is a correction to a
17 citation in RTD-12, my testimony.

18 On Page 44, Line 24, the reference to a
19 hearing transcript citation left out the volume. The
20 correct volume number is 4. So it should read "HT 4"
21 and then the rest of the citation on Line 24.

22 And the final correction is to note a
23 typographical error.

24 Page 48, about Line 7, in an indented quote
25 where I refer to "Revised Water Right Decision 16431."

1 That should be, instead, "1641."

2 MS. ROBERTSON: Thank you.

3 Final question: Have you reviewed
4 RTD-13-Revised?

5 WITNESS STROSHANE: I have.

6 MS. ROBERTSON: Is it a true and correct copy
7 of the slides you will use to summarize your oral --
8 your written testimony?

9 WITNESS STROSHANE: Yes, it is.

10 MS. ROBERTSON: Thank you.

11 And did you prepare these slides?

12 WITNESS STROSHANE: I did.

13 MS. ROBERTSON: Thank you.

14 Please summarize your testimony.

15 WITNESS STROSHANE: Good afternoon. I'm Tim
16 Stroshane, Policy Analyst with Restore the Delta.

17 Here, I present a summary of my written
18 testimony for Part 2 of this proceeding.

19 Next slide -- Oh, could you bring up the
20 PowerPoint, RTD-13-Revised.

21 (Exhibit displayed on screen.)

22 WITNESS STROSHANE: Hmm. It should be
23 "Revised" on the cover there.

24 (Exhibit displayed on screen.)

25 WITNESS STROSHANE: Yes, there you go. Yes,

1 thank you.

2 Next slide.

3 (Exhibit displayed on screen.)

4 WITNESS STROSHANE: My direct written
5 testimony aims to provide answers to the questions
6 posed in a Hearing Notice for this proceeding.

7 This slide summarizes topics of my written
8 testimony that answer Hearing Notice questions.

9 Over the course of my testimony, the answers I
10 summarize resolve to two types:

11 Some are recommendations for Permit conditions
12 to any order approving the Change Petition.

13 Others reflect RTD's unalterable opposition to
14 the Project for which we offer the Board reasons for
15 denial of the Change Petition.

16 The topics I used include the following:

17 A brief recap of flow -- certain flow and
18 water quality changes but adding to our case a
19 description of water transfers as an important part
20 of -- sorry -- an important Project purpose that
21 represents a potential change in flows.

22 Second, stressors' interactions between
23 selenium loading with non-native invasive clams.

24 Third, Giant Garter Snake status and Habitat
25 Recovery Plan needs.

1 Fourth, a description of proposed
2 state-of-the-art fish screens for North Delta intakes
3 and their high uncertainty of success for protecting
4 small fish in their vicinity.

5 Fifth, our suggestions for the Board's
6 evaluation and determination of appropriate flow
7 criteria for the Delta.

8 Sixth, our reasoning as to how Petition
9 facilities are contrary to Water Code Section 85021 and
10 is, therefore, not in the public interest.

11 And, finally, a summary of additional reasons
12 the Board could use to deny the Change Petition.

13 Next slide, please.

14 (Exhibit displayed on screen.)

15 WITNESS STROSHANE: My testimony briefly
16 recounts flow and water quality alterations expected
17 from operations of Petition facilities, which I
18 described in my Part 1B testimony.

19 They include: Removal of flowing water from
20 the Lower Sacramento River;

21 Greater frequency of the San Joaquin River as
22 source water in Central and Western Delta channels;

23 And increased residence time of water.

24 In addition, my Part 2 testimony cites
25 evidence from Petitioners' and others' re -- sources

1 indicating that a key purpose of Petition facilities is
2 to increase capacity for water transfers to meet
3 supplemental water demands south of the Delta in dryer
4 years.

5 Rather than flowing through Delta channels as
6 they do now, water transfers would increasingly flow
7 through North Delta intakes and tunnels for
8 South-of-Delta delivery.

9 Next slide.

10 (Exhibit displayed on screen.)

11 WITNESS STROSHANE: It is my testimony that
12 there are stressor interactions between selenium and
13 two invasive non-native benthic clams in the Delta.
14 Further, there are specific Permit conditions RTD
15 recommends the Board consider.

16 These stressor interactions can lead to
17 selenium bioaccumulation in the clams. The clams range
18 from Suisun Marsh in the Delta into the Delta by coping
19 with a wide salinity range that I describe in my
20 written testimony.

21 And I summarize the Delta Regional Ecosystem
22 Conceptual Model for potamocorbula, one of the clams,
23 that indicates how this clam's geographic range may
24 change with regard to flow and salinity conditions.

25 I also summarize the 2015 Region 2 Water

1 Board's total maximum daily load regulation for
2 selenium in Northern San Francisco Estuary.

3 Next slide.

4 (Exhibit displayed on screen.)

5 WITNESS STROSHANE: My testimony summarizes
6 others' observations that selenium loads to the Delta
7 may change if waters originating from the San Joaquin
8 River and flowing through the Delta increase as a
9 result of Petition facilities North Delta intakes'
10 operations.

11 While, first and foremost, RTD recommends
12 denial of the Change Petition, we urge the State Water
13 Board to consider including Permit conditions relating
14 to selenium management that require increased bird egg
15 monitoring, Sturgeon muscle tissue plug sampling and
16 Fin Ray sampling from Sturgeon and other fish.

17 Next slide.

18 (Exhibit displayed on screen.)

19 WITNESS STROSHANE: We also recommend that the
20 Board condition the Permits and issues for Petition
21 facilities to facilitate implementation of the Region
22 to Water Board TM -- selenium TMDL.

23 We also urge the Board to require increased
24 selenium research and monitoring in the scope of the
25 Project -- the Project's Adaptive Management Program

1 through use of Permit conditions.

2 Next slide.

3 (Exhibit displayed on screen.)

4 WITNESS STROSHANE: I also provided written
5 testimony that summarizes the status of Giant Garter
6 Snake and its habitat in the Delta as described in the
7 2017 GGS Recovery Plan.

8 Giant Garter Snakes face loss and
9 fragmentation of native wetland and marsh habitat,
10 although they have shown some adaptation to rice fields
11 in the Sacramento Valley as alternative habitat.

12 But their habitat has been constricted by
13 effects of urbanization converting wetlands as well as
14 effects of levee and canal maintenance that result in
15 some loss of vegetative cover.

16 Their adaptation to rice fields makes them
17 vulnerable to the effects of water transfers due to
18 crop idling or shifting, reservoir releases, or
19 groundwater substitution type transfers.

20 They reside in small dispersed populations and
21 face invative (sic) -- invasive aquatic competitors.

22 Finally, they face selenium and other
23 contamination threats to favored prey, including
24 Tadpoles, Frogs, Toads and small fish.

25 Next slide.

1 (Exhibit displayed on screen.)

2 WITNESS STROSHANE: RTD recommends that the
3 Board look to the 2017 Giant Garter Snake Recovery Plan
4 for Permit conditions.

5 In particular, my testimony suggests three
6 types of Permit conditions the Board should consider:

7 Requiring of the Petitioners' funding,
8 expertise and land purchases to establish block
9 pairings of Giant Garter Snake-favored habitat and
10 corridors.

11 Improving water quality in suitable habitat.

12 And including Giant Garter Snake studies in
13 the Adaptive Management Program scope for Petition
14 facilities.

15 Next slide.

16 (Exhibit displayed on screen.)

17 WITNESS STROSHANE: It is my testimony that
18 the fish screens to be deployed in front of each North
19 Delta intake of Petition facilities are touted by
20 Petitioners to protect small fish along the Lower
21 Sacramento River.

22 From Petitioners' own sources and from the
23 Delta Independent Science Board, I record in my
24 testimony several statements indicating that these
25 proposed fish screens have high uncertainty of success.

1 Next slide.

2 (Exhibit displayed on screen.)

3 WITNESS STROSHANE: I now turn to portions of
4 my testimony that address appropriate Delta Flow
5 Criteria.

6 I briefly listed in my testimony what I
7 consider as a broader California water policy framework
8 that I respectfully request the Board bear in mind as
9 it considers appropriate Delta Flow Criteria
10 determinations.

11 It is my testimony that Petitioners suggested
12 in September 2017 that the Board apply Water Rights
13 Decision 1641 -- D-1641 -- as Permit conditions.

14 It is also my testimony that the Board has in
15 some of its own recent documents acknowledged the
16 insufficiency of current water quality objectives in
17 D-1641 to protect fish and estuarian beneficial uses.

18 Further, it is my testimony that D-1641 is
19 inadequate and inappropriate in application to
20 Petitioners' Permit conditions.

21 And it is also my testimony that RTD
22 recommends Permit conditions for X2-related estuarian
23 determinations on which the Water Board concurred in
24 2010 with the California Department of Fish and
25 wildlife.

1 Next slide.

2 (Exhibit displayed on screen.)

3 WITNESS STROSHANE: If the Board intends to
4 approve the Change Petition, it is my testimony to
5 recommend the Board conduct water -- water availability
6 analysis and a comprehensive benefit-cost analysis of
7 the Change Petition that is inclusive of nature's
8 services that would be maintained and foregone in the
9 Delta in order to help determine appropriate flow
10 criteria.

11 It is also my testimony that the Change
12 Petition is, with its dual conveyance approach,
13 contrary to the plain language of Water Code
14 Section 85086(c)(2) and should be denied.

15 Next slide.

16 (Exhibit displayed on screen.)

17 WITNESS STROSHANE: It is my testimony that
18 Restore the Delta recommends denial of the Change
19 Petition on grounds that it is contrary to Water Code
20 Section 85021.

21 My testimony recounts statements from
22 Petitioners' environmental documents, Westlands Water
23 District, Kern County Water Agency, and Metropolitan
24 Water District of Southern California, and that these
25 statements reflect an important part of Petitioners'

1 and Water Contractors' efforts to maintain or even
2 increase, not reduce, Delta reliance for California's
3 future water needs.

4 Next slide.

5 (Exhibit displayed on screen.)

6 WITNESS STROSHANE: To summarize, it is my
7 testimony that Restore the Delta makes recommendations
8 for Permit conditions in the event that the Board
9 decides to approve the Change Petition.

10 These subjects of our Permit conditions
11 include:

12 An expected increase in stressors'
13 interactions between selenium loading and invasive
14 non-native clams;

15 That GGS -- That there are GGS habitat and
16 research needs in the Delta;

17 And that X2 and Category B plus -- excuse
18 me -- public trust protective flow actions from the
19 2010 Delta Flow Criteria Report be considered as -- as
20 potential Permit conditions.

21 Next slide.

22 (Exhibit displayed on screen.)

23 WITNESS STROSHANE: My two concluding slides
24 summarize a list of reasons for my written testimony
25 that RTD recommends to the Board as potential findings

1 for denial of the Change Petition.

2 Fish screens are touted to protect small fish
3 but have high uncertainty of success and would create
4 more predation hotspots. They are, therefore, an
5 unreasonable method of diversion.

6 This should be grounds for denial of the
7 Change Petition as not in the public interest.

8 Increased water transfers are contrary to the
9 legislature's command to reduce Delta reliance for
10 California's future water needs and is, therefore, not
11 in the public interest.

12 The Change Petition's dual conveyance scope
13 and description are contrary to the legislature's
14 formulation of change in diversion points and is also,
15 therefore, not in the public interest.

16 Next slide, please.

17 (Exhibit displayed on screen.)

18 WITNESS STROSHANE: In addition to those on
19 the previous slide, RTD argues in the Part 1B portion
20 of our case in chief that the Change Petition lacks
21 compliance with the State's scheme for acquiring and
22 exercising appropriative water rights and would lead to
23 further cold storage of water rights by Petitioners
24 which would not be in the public interest.

25 In my testimony, I summarize also why the

1 Change Petition violates the established water right
2 principle that a Change Petition cannot represent a
3 right that is so changed as to constitute a new right.

4 It is my testimony that the Petition
5 facilities would represent such a change that would
6 constitute a new water right and, therefore, should be
7 denied as not in the public interest.

8 This concludes my oral presentation of my
9 testimony.

10 CO-HEARING OFFICER DODUC: Thank you.

11 Before you continue, Miss Robertson, two
12 things:

13 One, Mr. Stroshane, as always, it is a
14 pleasure to see how efficient, clear and well prepared
15 you are. If I can give a shiny star to anyone, it
16 would be you.

17 Secondly, Miss Robertson, I would like to give
18 the court reporter, who has been awesome, a break
19 sometime between 3:15 and 3:30.

20 MS. ROBERTSON: Okay.

21 CO-HEARING OFFICER DODUC: So I'll leave it to
22 you to find a nice break between your witnesses.

23 MS. ROBERTSON: Okay. That shouldn't be a
24 problem, yeah. Okay.

25 MS. GHAFAR: Good afternoon, Hearing Officers.

1 I will now turn to Miss Barrigan-Parrilla's testimony.

2 Miss Barrigan-Parrilla, please state and spell
3 your name.

4 WITNESS BARRIGAN-PARRILLA: Barbara
5 Barrigan-Parrilla.

6 Last name is spelled B-A-R-R-I-G-A-N hyphen
7 P-A-R-R-I-L-L-A.

8 MS. GHAFAR: Have you reviewed RTD-2?

9 WITNESS BARRIGAN-PARRILLA: Yes.

10 MS. GHAFAR: Is RTD (sic) a true and correct
11 statement of your qualifications?

12 WITNESS BARRIGAN-PARRILLA: Yes, it is.

13 MS. GHAFAR: Do you have any corrections or
14 qualifications to add to that statement?

15 WITNESS BARRIGAN-PARRILLA: No.

16 MS. GHAFAR: Have you reviewed RTD-22?

17 WITNESS BARRIGAN-PARRILLA: Yes.

18 MS. GHAFAR: Is it a true and correct copy of
19 your written testimony?

20 WITNESS BARRIGAN-PARRILLA: Yes.

21 MS. GHAFAR: Does it accurately reflect your
22 knowledge and belief regarding the matters discussed?

23 WITNESS BARRIGAN-PARRILLA: Yes.

24 MS. GHAFAR: Did you prepare this testimony?

25 WITNESS BARRIGAN-PARRILLA: I prepared the

1 testimony in collaboration with Tim Stroshane, and it
2 was edited by Trent Orr, and I believe you did some
3 editing as well.

4 MS. GHAFAR: Have you reviewed RTD-23?

5 WITNESS STROSHANE: Yes.

6 MS. GHAFAR: Is it a true and correct copy of
7 the slides you will use to summarize your testimony?

8 WITNESS BARRIGAN-PARRILLA: Yes.

9 MS. GHAFAR: Did you prepare these slides?

10 WITNESS BARRIGAN-PARRILLA: I prepared these
11 slides, I believe, with Mr. Stroshane and another staff
12 member of Restore the Delta.

13 MS. GHAFAR: Thank you.

14 Please summarize your testimony.

15 WITNESS BARRIGAN-PARRILLA: Thank you.

16 Good afternoon. Barbara Barrigan-Parrilla for
17 Restore the Delta.

18 If we could please call up RTD-23.

19 (Exhibit displayed on screen.)

20 WITNESS BARRIGAN-PARRILLA: Thank you,

21 Mr. Hunt.

22 If we could go to the next slide.

23 (Exhibit displayed on screen.)

24 WITNESS BARRIGAN-PARRILLA: These are the
25 topics as they relate to the public interest sections

1 that constitute my testimony.

2 My testimony covers my understanding of these
3 topics through November 30th, 2017, the due date of the
4 testimony.

5 The information behind these topics continues
6 to evolve on a daily basis, and we continue to track
7 what is happening under these topic categories. But,
8 again, my snapshot ends with November 30th for today.

9 My testimony looks at the long process of lack
10 of transparency and how subsequent planning decisions
11 fail to serve the public interest in terms of a
12 business case, particularly for water ratepayers in
13 Southern California and Delta water users and their
14 respective environmental justice communities.

15 I will be covering Petition facilities in the
16 public interest Projects. In this case, my testimony
17 covers Beneficiary Pays Rule, the results of a Federal
18 audit and a State audit, CVP participation in the
19 Project and State Water Project participation.

20 Can we go to the next slide, please.

21 (Exhibit displayed on screen.)

22 WITNESS BARRIGAN-PARRILLA: These are
23 additional topics covered in my written testimony,
24 everything from the DWR validation suit, comments about
25 Joint Powers Authorities, public interest as it relates

1 to the Metropolitan Water District purchase of Delta
2 islands, ratepayer understanding of the Project, a
3 study case based on Central Basin Municipal Water
4 District participation.

5 And my testimony will conclude with
6 recommendations should the -- should you move forward
7 with granting the Petition, recommendations that we
8 believe should be put on the Permit.

9 Next slide, please.

10 (Exhibit displayed on screen.)

11 WITNESS BARRIGAN-PARRILLA: In my testimony, I
12 summarize, regarding Petition facilities and the public
13 interest:

14 A business case that the facilities are not in
15 the public interest;

16 How that evolves from changes from BDCP to
17 California WaterFix;

18 And what is that impact under the Delta Reform
19 Act of 2009?

20 My testimony also covers:

21 That there is a lack of documented proof that
22 beneficiaries will pay in full for the Project;

23 And that the Project lacks legislative
24 authorization and a financial plan.

25 Next slide.

1 (Exhibit displayed on screen.)

2 WITNESS BARRIGAN-PARRILLA: Turning first to
3 the business case.

4 As of the date of this testimony, Metropolitan
5 Water District Board of Directors committed to paying
6 \$4.3 billion of the nearly \$17 billion Project, roughly
7 a 26 percent share.

8 The Kern County Water Agency Board of
9 Directors approved roughly a \$1 billion share, bringing
10 financial commitments for the Project to roughly
11 \$5.3 billion.

12 There were commitments made by some smaller
13 agencies, but as of the date of this testimony, no
14 commitments have been made by any Central Valley
15 Project Contractors towards funding, and several
16 supporting agencies voting to support the Project on
17 the State Water side did not approve any funding to
18 move forward.

19 This leaves a significant funding shortfall
20 for the two-tunnel Project Petition presently before
21 the Board, a funding gap of around 67 percent in
22 funding commitments.

23 In addition, as we observed at a repre --
24 presentation made by Goldman Sachs to Westlands Water
25 District Board Members during the summer 2017, bond

1 payments are set at a fixed amount for repayment even
2 though bond type and financing terms could vary.

3 Presentations made specifically by
4 Metropolitan Water District senior municipalities
5 discussed how bond repayments will be made on
6 volumetric water sales without explanation of how bond
7 payments would be made in dry and drought years with
8 those bond payments needing to be made at a fixed
9 amount.

10 This is the narrative of my testimony that
11 recounts specific public agency meetings. And
12 assertions were made by MWD representatives time and
13 time again that retail agencies would not have to pay
14 for water that they did not receive.

15 Approval of the Change Petition will not be in
16 the public interest because Petitioners and Project
17 Proponents have yet to obtain legislative authorization
18 and appropriation of funds for the Project and, in
19 doing so, seek to undermine the legislative principle
20 requiring beneficiaries to pay for the Project and its
21 planning development.

22 Next slide, please.

23 (Exhibit displayed on screen.)

24 WITNESS BARRIGAN-PARRILLA: During years of
25 messaging by Petitioners, the Brown administration and

1 Water Contractors, it has been stated that water users,
2 the beneficiaries, will pay for the Project. This is
3 what is described in the Burns-Porter Act for the State
4 Water Project and Water Code Section 85089.

5 However, this is not what has happened to date
6 With Project planning expenses and what I have since
7 learned from reading budgets, public documents and
8 observing public meetings since the date of my
9 testimony.

10 Prior to the filing of my testimony, it was
11 reported in the press, and identified via a Federal
12 audit, that a significant portion of CVP planning
13 contributions were made by the U.S. Bureau of
14 Reclamation. To my knowledge, CVP Contractors have not
15 repaid these funds to the Bureau.

16 As I understand from the results of the audit,
17 payments made by the USBR were contrary to the
18 principle of beneficiaries paying for all planning,
19 design and construction expenses for the Project.

20 Not only do we not have a full Financial
21 Feasibility Plan from the Project to present to the
22 Board, the documents presented as evidence to this
23 Board by the Petitioners did not indicate as to how the
24 Beneficiaries Pay Principle would be executed to make
25 up for the gap in funding that I have previously

1 described.

2 Approval of the Change Petition will not be in
3 the public interest because Petitioners and Project
4 Proponents have yet to obtain that legislative
5 authorization and appropriation of funds for the
6 Project and, in doing so, seek to undermine the
7 legislative principle requiring beneficiaries to pay
8 for the Project and its planning and development.

9 A lack of financial planning could lead
10 to . . .

11 A lack of financial planning could lead to
12 commitments not being met through due diligence for
13 construction and could result in the cold storage of
14 water rights.

15 Next slide, please.

16 (Exhibit displayed on screen.)

17 WITNESS BARRIGAN-PARRILLA: Over one-third of
18 planning expenses, over \$80 million, was found in the
19 Federal audit to -- paid for by the U.S. Bureau of
20 Reclamation instead of the Central Valley Project
21 Contractors. Again, this contra -- contradicts Water
22 Code 85089.

23 And an important point, we only learned that
24 these violations occurred because good government
25 groups used Public Record Acts requests to learn how

1 the Project was managed.

2 The lack of transparency continues today. And
3 this lack of transparency limits public understanding
4 of the Project and the potential for public oversight,
5 which does not serve the public interest.

6 As a side note, recent testimony before this
7 Board revealed that the public would not have the
8 ability to evaluate operational decisions made by the
9 proposed adaptive management group for the Project.

10 That, coupled with a lack of transparency
11 regarding financing, would set the conditions for this
12 Project to be operated solely -- potentially for the
13 purpose of water deliveries, particularly by Finance
14 Joint Powers Authorities that will need to ensure water
15 deliveries to secure fixed term bond repayments.

16 Next slide, please.

17 (Exhibit displayed on screen.)

18 WITNESS BARRIGAN-PARRILLA: Even more
19 troubling were the findings from the State audit in
20 regard to Cal WaterFix.

21 Petitioner DWR accepted payments from the
22 Bureau of Reclamation for planning expenses despite
23 conditions set on beneficiaries pay by the Delta Reform
24 Act.

25 The State Auditor found no transparency in

1 financial management of planning costs to date, no
2 detailed financial plan and no cost benefit analysis.

3 Here, I would add that the cost analysis
4 provided by Dr. Sunding to California WaterFix in 2016
5 fails to analyze the socioeconomic environmental costs
6 of removing fresh water from the estuary via the new
7 intakes and their associated Operational Plans.

8 Next, please.

9 (Exhibit displayed on screen.)

10 WITNESS BARRIGAN-PARRILLA: As known via press
11 accounts, Westlands Water District voted to not
12 participate in the plan that stands before the Board as
13 part of the present Petition.

14 The Bureau of Reclamation has stated there
15 will be no Federal financial participation, although
16 the Goldman Sachs presentation to Westlands suggested
17 pursuit of Federal government loans for the Project.
18 These are loans, generally speaking, with
19 public-private partnerships commonly known as P3s.

20 Next slide.

21 (Exhibit displayed on screen.)

22 WITNESS BARRIGAN-PARRILLA: The Kern County
23 Water Agency split its vote regarding California
24 WaterFix participation. They agreed to pay about half
25 of what had been anticipated as their funding

1 contributions.

2 Santa Clara Valley Water District voted to
3 support a Single-Tunnel Project with restrictions but
4 did not vote on a financial contribution.

5 MWD member agencies as of the date of this
6 testimony agreed to a 26 percent share of \$4.3 billion
7 for the total Project cost of nearly \$17 billion.

8 The lack of a cohesive financial plan and
9 commitments to funding being set before moving forward
10 with granting of the Permit would not meet the public
11 interest.

12 Next slide, please.

13 (Exhibit displayed on screen.)

14 WITNESS BARRIGAN-PARRILLA: My testimony
15 elucidates that DWR filed a validation complaint in
16 order to state its authority to construct and operate
17 the Project and to use revenue bonds to pay for it.

18 Interestingly, in filed responses, Westlands
19 Water District is looking for repayment from the State
20 for funds that they spent on the BDCP planning process.

21 In the event that DWR's validation case may
22 not result in judicial authorization to issue revenue
23 bonds, MWD maintains a process could be established
24 leading to the potential conveyance of a financed JPA,
25 Joint Powers Authority.

1 MWD asserts in its question-and-answers paper
2 that if the validation suit experiences delays,
3 Petitioner DWR could issue bonds to a Finance JPA for
4 design and construction.

5 I argue in my testimony that this does not
6 serve the public interest, as public interactions with
7 a JPA would supersede retail and wholesale water users'
8 direct accessibility and make it nearly impossible for
9 inter -- rate payers to interact with their water
10 agencies.

11 Both Southern California water rate payers,
12 essentially those who make up the Southern California
13 environmental justice community, will be stripped of
14 their ability to weigh in on water affordability
15 decisions, particularly if the Project should meet with
16 cost overruns.

17 The creation of all the JPAs listed on this
18 slide as presented by MWD would make input on Project
19 construction and operations nearly impossible for Delta
20 residences. Specifically, again, Delta residents of
21 the environmental justice community.

22 Consequently, Joint Power Authorities would
23 have the ability to hold regulators as captive members
24 and would render public input for those course
25 corrections during construction operation to regulators

1 as moot.

2 These proposed JPAs, consequently, don't serve
3 the public interest and, really, Joint Powers
4 Authorities can issue bonds for the Project without
5 local approval, which is really problematic for
6 Metropolitan Water District ratepayers, especially
7 those from the environmental justice community.

8 Next slide, please.

9 (Exhibit displayed on screen.)

10 WITNESS BARRIGAN-PARRILLA: Land acquisition
11 as a strategy for Metropolitan Water District is a
12 tactic for pushing through Cal WaterFix construction,
13 and it's contrary also to the public interest.

14 In my testimony, I describe the problems of
15 how the appraisal for the purchase of the Delta Islands
16 was hidden from MWD Board Members and how DWR aided MWD
17 with this land acquisition.

18 In an effort by MWD to control land and water
19 rights in the Delta for Project advancement when the
20 Petitioner here today is DWR, and DWR's mission is to
21 manage the water resources of California in cooperation
22 with other agencies to benefit the State's people and
23 to protect, restore, enhance the natural and human
24 environments.

25 While MWD has the right for closed-door

1 negotiations, which they went through during the time
2 that they were looking at the purchase, DWR was not
3 supposed to function as a party to a hidden land
4 acquisition strategy.

5 The DCE, which is part of the Department of
6 Water Resources, worked with and knew of MWD's land
7 acquisition strategy.

8 Next slide, please.

9 (Exhibit displayed on screen.)

10 WITNESS BARRIGAN-PARRILLA: In terms of
11 ratepayer understanding of the Project, while hearing
12 members are evaluating the Petition as presented by DWR
13 and the Bureau of Reclamation, evidence exists in my
14 testimony showing that MWD statements regarding cost to
15 ratepayers and bond repayments offer great -- greater
16 details on the real business case for the Project.

17 MWD and their member agencies' outreach to
18 ratepayers has been filled with contradictions,
19 discrepancies, half-truths, and lack of specifics.

20 This evidence should be taken into account as
21 it indicates how participating Contractors like MWD are
22 fashioning the Project to operate in reality.

23 Promises have been made to ratepayers about
24 not having to pay for water they don't receive, but
25 bond repayments are constant despite who receives the

1 water or drought conditions once the wholesaler commits
2 to the bond.

3 Next slide.

4 (Exhibit displayed on screen.)

5 WITNESS BARRIGAN-PARRILLA: In my testimony, I
6 examine Central Basin's Municipal Water District's
7 interactions with their 1.7 million customers. And
8 those customers constitute a significant portion of
9 MWD's 6.2 million customer addresses that receive
10 service water.

11 Questions remain of who will pay for how much
12 and what share. Will residents pay for water purchases
13 by -- purchases made by large industries for WaterFix
14 water?

15 How will retail agencies award -- afford
16 California WaterFix water while dealing with research
17 and testing of groundwater supplies when WaterFix will
18 only make up in some cases 20 to 30 percent of the
19 water for some municipalities?

20 The inequities in water affordability and
21 water quality that we see for environmental justice
22 communities from the Oregon border to the Mexican
23 border will be exacerbated by California WaterFix as
24 the water will follow the money.

25 My concluding slide looks at how we think some

1 of these issues regarding transparency in the public
2 interest, the business case, and affordability should
3 be dealt with.

4 (Exhibit displayed on screen.)

5 WITNESS BARRIGAN-PARRILLA: Thank you.

6 Petition denial is what we really request
7 because we believe that the funding is not solidified
8 and the Business Plan has not been completed
9 accurately, nor the cost benefit analysis.

10 But if you should move forward with granting
11 the Petition, we would ask and recommend:

12 For compliance with beneficiary pays
13 requirements under all laws, including Water Code
14 Section 85089;

15 A peer-reviewed cost benefit analysis that
16 looks at the value of fresh water to the Delta and the
17 San Francisco Bay Estuary;

18 Detailed peer-reviewed finance plan that
19 documents bond repayment schedules;

20 A detailed plan for Project Joint Power
21 Authorities to provide transparent quarterly updates
22 regarding Project financials, work completed, and work
23 scheduled.

24 We believe that is essential because,
25 otherwise, the public will not have any accessibility

1 to this information.

2 And, last, a Customer Service Center for Delta
3 residents and ratepayers to interface with the various
4 Joint Power Authorities.

5 That will conclude my testimony.

6 MS. ROBERTSON: Is now a good time for a
7 pause?

8 CO-HEARING OFFICER DODUC: It is a perfect
9 time.

10 MS. ROBERTSON: Okay.

11 CO-HEARING OFFICER DODUC: Thank you. We will
12 resume at 3:45.

13 (Recess taken at 3:30 p.m.)

14 (Proceedings resumed at 3:45 p.m.):

15 CO-HEARING OFFICER DODUC: All right. It is
16 3:45.

17 And before we return to Miss Robertson, let's
18 do two housekeeping matters.

19 The first is: We received a response from
20 Mr. Volker. Thank you for the timely response to my
21 inquiry about the request in change of his panels for
22 the case in chief.

23 Mr. Volker, please note that, as standard
24 practice, we do not provide a date certainty to
25 witnesses because of their unavailability.

1 So unless there is objections from DWR, or
2 anyone else for that matter, with respect to the
3 rearrangement of the panels as proposed by Mr. Volker,
4 we will call his panel in the order that he has
5 proposed and expect that he would be monitoring the
6 hearing and make them available to present their direct
7 testimony and be cross-examined in the order that he is
8 proposing.

9 MR. MIZELL: Tripp Mizell, DWR.

10 Just so that I am not confusing myself, we are
11 accepting his changes with the five witnesses
12 identified in his initial request going before Dierdre
13 Des Jardins' witness.

14 And then all the remainders will be called --
15 Well, the first panel consists now of one witness, his
16 second panel will consist now of one witness, and then
17 his third panel.

18 CO-HEARING OFFICER DODUC: If you're reading
19 the same thing I am, that's

20 Are you reading the same thing I am? It's a
21 March 28th, 2018, letter that he just sent after I
22 expressed my confusion.

23 MR. MIZELL: Oh, I -- I had not had a chance
24 to see what he sent just in just now.

25 CO-HEARING OFFICER DODUC: All right. Then

1 why don't we get back to that either the end of today
2 or first thing tomorrow when you've had a chance to
3 review it.

4 But for Mr. Volker's sake -- I assume he's
5 watching -- he asks for specific dates for specific
6 witnesses, and I'm letting him know that that is not
7 our standard practice, that he is, like everyone else,
8 to monitor the hearing.

9 We'll do our best at the end of each day, and
10 as the need arises, to try to project timing for
11 parties but I cannot at this time guarantee any
12 specific dates for any of his witnesses.

13 Having said that, though, we also have
14 received a correspondence from Miss Des Jardins who has
15 a special circumstance regarding the scheduling of a
16 California Department of Fish and Wildlife witness that
17 she subpoenaed.

18 She has requested actually a date certainty.
19 So we will discuss that. But in her exception, we will
20 do our best to project and provide a date for the CDFW
21 witness that she wishes to appear.

22 And perhaps most importantly, since tomorrow
23 will be the last day of hearing for this week, I
24 thereby declare it Casual Friday.

25 CO-HEARING OFFICER MARCUS: Tomorrow?

1 CO-HEARING OFFICER DODUC: Tomorrow.

2 (Laughter.)

3 CO-HEARING OFFICER DODUC: With that,
4 Miss Robertson.

5 MS. ROBERTSON: Thank you.

6 We'll now turn to the testimony of Roger
7 Mammon.

8 Mr. Mammon, can you please state and spell
9 your name.

10 WITNESS MAMMON: Yes. Roger Mammon,
11 M-A-M-M-O-N.

12 MS. ROBERTSON: Thank you.

13 And have you -- have you reviewed RTD-7?

14 WITNESS MAMMON: I have.

15 MS. ROBERTSON: Is it -- Is it a true and
16 correct copy of your Statement of Qualifications?

17 WITNESS MAMMON: There have been some changes
18 since this was written.

19 I served four two-year terms as President of
20 the Lower Sherman Island Duck Hunter Association. I am
21 no longer President, but I am still on the Board.

22 And I am now the President of the West Delta
23 Chapter of the California Striped Bass and have been so
24 since 2013.

25 And this Statement of Qualifications was

1 written for the Restore the Delta website, and I have
2 been a Board Member since its inception.

3 MS. ROBERTSON: Thank you for those updates.

4 Have you reviewed RTD-70?

5 WITNESS MAMMON: I have.

6 MS. ROBERTSON: Is it a true and correct copy
7 of your written testimony?

8 WITNESS MAMMON: Yes, other than I've gotten
9 older.

10 MS. ROBERTSON: As have we all.

11 Did this accurately reflect your knowledge and
12 belief regarding the matters discussed in the
13 testimony?

14 WITNESS MAMMON: Yes, it does.

15 MS. ROBERTSON: Did you prepare the testimony?

16 WITNESS MAMMON: I did.

17 MS. ROBERTSON: And have you reviewed RTD-71?

18 WITNESS MAMMON: I have.

19 MS. ROBERTSON: Is it -- Is it a true and
20 correct copy of the slides you will use to summarize
21 your written testimony?

22 WITNESS MAMMON: It is.

23 MS. ROBERTSON: And did you prepare these
24 slides?

25 WITNESS MAMMON: I had assistance with

1 Mr. Stroshane to prepare these slides.

2 MS. ROBERTSON: Thank you.

3 So can you please summarize your testimony.

4 WITNESS MAMMON: Yes.

5 I, Roger Mammon, Board Member with Restore the
6 Delta, do hereby declare:

7 I have lived my entire 72 years in the San
8 Francisco Bay Delta.

9 My fishing experience started as a child on
10 family picnics at Lake Temescal in Oakland. My folks
11 would take my brothers and me to the Berkeley pier to
12 fish San Francisco Bay.

13 My dad was born and raised in a small mining
14 town in Arizona, and he knew the importance of outdoor
15 activities for his kids.

16 I was introduced to hunting in my early 20s
17 through a friend in college.

18 I've pursued both sports avidly and have had
19 the pleasure of fishing and hunting in California,
20 Arizona, Colorado, Washington, Wyoming, Montana,
21 Canada, the Sea of Cortez, and Cabo San Lucas, Mexico.

22 I've been active with the California Striped
23 Bass for over 20 years and currently I'm President of
24 the West Delta Chapter.

25 I served eight years as the President of the

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1 Lower Sherman Island Duck Hunters Association and
2 remain a Board Member.

3 For the past 35 years, I have lived in Oakley,
4 California, which is on the shores of the San Joaquin
5 River in the West Delta.

6 I have been privileged to enjoy the
7 recreational opportunities as a hunter, fisherman, and
8 boater in the San Francisco Bay Delta with fellow
9 sportsmen and sportswomen who have a legal use of
10 water.

11 I enjoy many different approaches to fishing.
12 I will sit on anchor and bait fish, troll for fish
13 pulling lures through the water with my boat, drifting
14 live bait, and cast artificial lures in shallow water
15 environments, as well as fly-fishing.

16 While duck hunting, I've hunted from my boat,
17 used blinds in public waterfowl areas in the Delta, and
18 hunted on Ag land with permission.

19 It is my belief -- It is my belief, based on
20 my experience as an angler and hunter, that the Delta's
21 suffering from an ecological crisis which has been well
22 documented for decades.

23 As a sportsman, I have watched the Delta die a
24 slow death as its life-giving blood, water, is removed
25 from the ecosystem in astonishing amounts leaving the

1 Delta ecosystem in a terrible mess.

2 My experience and observations have spurred my
3 concerns about this dying estuary, which is what is
4 causing its the demise and how my legal use of water is
5 being violated.

6 Our Delta's a tidal estuary and, prior to the
7 1960s supported an abundance of aquatic life and a
8 robust fishery for Salmon and Striped Bass.

9 Water quality has been degraded and marine
10 life is struggling. Our fisheries have declined
11 90 percent from historic levels.

12 I once watched Salmon roll on the surfaces of
13 the Sacramento River as they moved upstream to spawn.
14 I used to witness Salmon and Steelhead smolts jump out
15 of the water as they made their way downstream to the
16 ocean. This life -- cycle-of-life experience is now a
17 rare occurrence on the West Delta where I live.

18 I began reading all that I could about the
19 Delta's history, fisheries, agriculture, the ecological
20 changes, and invasive species. I have read studies by
21 Dr. Peter Moyle, Jeffrey Mount, Dr. David Ostrach,
22 Ellen Hanak of PPIC, findings of the Delta Stewardship
23 Council's Independent Science Report, the State Water
24 Resource Control Board point and scientific review of
25 necessary flows to maintain a healthy Delta.

1 I've also reviewed the Delta-Estuary
2 California Inland Coast: A Public Trust Report
3 prepared for the California Lands Commission in May of
4 1991, and An Economic Analysis of Striped Bass,
5 Steelhead, Chinook, Black Salmon, Black Bass and
6 Halibut and Sturgeon Fishing in the 31-county area of
7 Northern California prepared by the -- for the
8 California Department of Fish and Wildlife by the
9 Program for Applied Research and Evaluation at
10 California State University, Chico, California.

11 Anglers spent \$470,289,821 in 2010. I have
12 read virtually ever Delta-related newspaper article
13 written by the late investigative journalist Mike
14 Taugher in the Contra Costa Times.

15 It is my opinion that the Petition before you
16 appears to be seeking a new water right than a simple
17 change of a point of diversion. The planned Project
18 will have the capability of diverting much of the
19 entire flow of the Sacramento River, depriving the
20 Delta of the fresh water outflow needed to sustain the
21 estuary.

22 How can altering the export operations that
23 are currently on the San Joaquin River drainage to the
24 export of water in huge amounts from the Sacramento
25 River miles away be accurately characterized as a mere

1 change of -- in the point of diversion?

2 The tunnels would significantly worsen the
3 already-impaired health of the West Delta and the
4 entire San Francisco Bay Estuary.

5 The estuary creates a food chain that all
6 species living in the Delta depend on to survive. That
7 life is created by the interaction of tides and
8 freshwater outflow, but the Delta has been deprived of
9 the outflows necessary to sustain the health of its
10 ecosystems. The result has been the pelagic organism
11 decline.

12 The tunnels would allow contaminated water
13 from the San Joaquin River to ride in the -- reside in
14 the South Delta. The Contra Costa Water District said
15 that the West Delta would become a seawater sump
16 contaminated with agriculture runoff and carcinogens.

17 As a fisherman, I at times enjoy keeping some
18 of what I catch. I am now cautious of eating fish from
19 the Delta due to the boron, selenium and other
20 contaminants. The California Department of Public
21 Health has warnings about the consumption of fish
22 caught in the Delta.

23 The fish I enjoy catching in the Delta are
24 Striped Bass, Black Bass, Salmon and Sturgeon. All of
25 these fish require clean water and flows to reproduce

1 and survive.

2 Sturgeon is of special concern as they do not
3 spawn annually. A female Sturgeon develops her roe
4 over the course of several years. If the water quality
5 and temperature is not right at the time they are ready
6 to spawn, they will reabsorb their eggs.

7 This is a prehistoric fish that has survived
8 over a one hundred million years and now the Green
9 Sturgeon is a threatened species and the White Sturgeon
10 is a species of concern. These fish are bottom feeders
11 and consume contaminants off the bottom of our Delta.
12 Clams are an important part of their diet and the
13 invasive Asian clam is a filter feeder that absorbs and
14 retains those contaminants.

15 I will also fish for Salmon during the ocean
16 and river season. These fish need strong flows to find
17 their natal spawning grounds and for their offspring to
18 migrate to sea to mature. They are nutritious and
19 support the coastal businesses from Monterey up to
20 Oregon.

21 Changes in water quality in the Delta have had
22 a negative effect on ducks and migratory birds. The
23 Delta is a major stopover and wintering area on the
24 Pacific Flyway. Increased salinity in the Delta has
25 affected the birds' food sources in shallow water

1 areas, which decreases nesting opportunities and areas
2 to raise their young.

3 Lack of Delta outflow has also increased the
4 presence of invasive species and organisms, changing
5 and at times destroying the natural habitat our native
6 species need to survive.

7 I intend in my oral testimony to share with
8 you some photos of Delta-related activities to having a
9 legal use of water.

10 In conclusion, I am directly affected as a
11 illegal use of water, as -- as the sporting activities
12 I enjoy are being decimated by the diversion of clean
13 water for other purposes and will be further severely
14 injure should the Petition be granted and the Twin
15 Tunnels constructed.

16 Could I have my slides.

17 (Exhibit displayed on screen.)

18 WITNESS MAMMON: I'm sorry.

19 Okay. Next -- Next slide, you can --

20 (Exhibit displayed on screen.)

21 WITNESS MAMMON: There I am with a Black Bass
22 that was 10 pounds. The gentleman that took me out was
23 in the area. Specifically, we caught a 10-pounder. I
24 think the biggest fish he caught was about a
25 four-pounder.

1 Next.

2 (Exhibit displayed on screen.)

3 WITNESS MAMMON: Here, we -- we are on a
4 fishing trip in San Pablo Bay, which is at the bottom
5 portion of our Delta, and it's with our Striped Bass
6 Association enjoying what we call our Fish-A-Thon.
7 It's a contest between the men and the women for the
8 most stages.

9 Next.

10 (Exhibit displayed on screen.)

11 WITNESS MAMMON: This young man here, even
12 though he stands 6-foot-3, he's only 14 years old.
13 He's a high school student, and I took him out fishing
14 and this is what he caught.

15 I tried to get him to release it and it was
16 almost like I punched him in the stomach. He didn't
17 want to let go.

18 Next.

19 (Exhibit displayed on screen.)

20 WITNESS MAMMON: This is a shot of our Kids
21 Derby at the Antioch fishing pier at the Antioch
22 Marina. We hold this Fishing Derby for the kids. It's
23 free. Everything's free: Bait, we feed them lunch,
24 nobody goes home without something. And it's to
25 encourage them to use the water in the Delta to catch

1 fish. It's -- The statement of the Kids Derby is to
2 get kids hooked on fishing, not drugs or gangs.

3 Next.

4 (Exhibit displayed on screen.)

5 WITNESS MAMMON: This is another shot of the
6 pier. See the kids out there having fun?

7 Next.

8 (Exhibit displayed on screen.)

9 WITNESS MAMMON: There I am with a Striped
10 Bass that I caught.

11 Next.

12 (Exhibit displayed on screen.)

13 WITNESS MAMMON: Here are a couple Salmon that
14 were caught up by Rio Vista.

15 Next.

16 (Exhibit displayed on screen.)

17 WITNESS MAMMON: There's one that my wife got.
18 She's pretty happy with her catch.

19 Next.

20 (Exhibit displayed on screen.)

21 WITNESS MAMMON: These are kids. We have age
22 categories. This is one category, and we have
23 trophies, rods, reels and tackle boxes as prizes for
24 the kids who catch the most -- most fish.

25 Next.

1 (Exhibit displayed on screen.)

2 WITNESS MAMMON: Here's another shot. We also
3 have the Kids Derby at the Contra Loma Reservoir, which
4 is part of the Contra Costa Canal system. And as you
5 can see, we had a ton of kids there.

6 Next.

7 (Exhibit displayed on screen.)

8 WITNESS MAMMON: I took part in a C.A.S.T. for
9 Kids Event. I've done it several times.

10 And the kids have some type of disability.
11 And this young man here, even though he's strapped to a
12 wheelchair, smiled all day long. And I will never
13 forget his name. It's Gary Cooper.

14 Next.

15 (Exhibit displayed on screen.)

16 WITNESS MAMMON: Being a duck hunter, I enjoy
17 being out in the Delta in the morning and watching the
18 world wake up.

19 Next.

20 (Exhibit displayed on screen.)

21 WITNESS MAMMON: Here it is on a foggy
22 morning. The Delta's just a beautiful place.

23 Next.

24 (Exhibit displayed on screen.)

25 WITNESS MAMMON: There's the shot -- You can

1 see the decoy down there. I don't think any ducks came
2 in that day but it was fun.

3 Next.

4 (Exhibit displayed on screen.)

5 WITNESS MAMMON: We also volunteer to help the
6 City of Oakley. They have a Kids Fishing Derby
7 annually. And we go out there and help the kids
8 release the small fish and teach them fishing
9 techniques and how to properly release the fish.

10 Next.

11 (Exhibit displayed on screen.)

12 WITNESS MAMMON: That's another shot of the
13 Kids Derby.

14 Next.

15 (Exhibit displayed on screen.)

16 WITNESS MAMMON: This young lady here, she's
17 all smiling because she just caught a fish and released
18 it.

19 Next.

20 (Exhibit displayed on screen.)

21 WITNESS MAMMON: This is a shot. We
22 participated over in San Francisco at Fort Baker when
23 the Salmon fishermen were having a tough time making a
24 living.

25 Next.

1 (Exhibit displayed on screen.)

2 WITNESS MAMMON: Here's another shot. There's
3 John Boytner, Robert Johnson Jr., Gary Adams and Jared
4 Hutman who was there.

5 Next.

6 (Exhibit displayed on screen.)

7 WITNESS MAMMON: There I am fighting a
8 Sturgeon.

9 Next.

10 (Exhibit displayed on screen.)

11 WITNESS MAMMON: This gentleman here standing
12 next to me fished the Delta for years. He's no longer
13 with us but he loved to catch Sturgeon. He was just a
14 great guy, former Marine.

15 I guess they're never former, huh?

16 Okay. Next.

17 (Exhibit displayed on screen.)

18 WITNESS MAMMON: Thank you.

19 CO-HEARING OFFICER DODUC: If I might ask:
20 What does "C.A.S.T." stand for in C.A.S.T. for Kids?

21 WITNESS MAMMON: Pardon me?

22 CO-HEARING OFFICER DODUC: What does C.A.S.T.,
23 C-A-S-T, stand for?

24 WITNESS MAMMON: You know, I can't answer
25 that. I'm not part of the program other than I

1 volunteer my boat to take kids out.

2 CO-HEARING OFFICER DODUC: It sounds like a
3 perfect name.

4 WITNESS MAMMON: Yes, it is.

5 CO-HEARING OFFICER DODUC: I'll have to Google
6 it.

7 Thank you.

8 WITNESS MAMMON: Um-hmm.

9 MS. GHAFAR: Thank you.

10 We'll now turn to Mr. Mulcahy's testimony.

11 Mr. Mulcahy, please state and spell your name.

12 WITNESS MULCAHY: Gary Mulcahy, G-A-R-Y,
13 M-U-L-C-A-H-Y.

14 MS. GHAFAR: Have you reviewed RTD-5?

15 WITNESS MULCAHY: Yes, I have.

16 MS. GHAFAR: Is RTD-5 a true and correct
17 Statement of your Qualifications?

18 WITNESS MULCAHY: What we all could remember,
19 yeah.

20 MS. GHAFAR: Do you have any qualifications to
21 add to that Statement?

22 WITNESS MULCAHY: I'm getting old, like
23 everybody else, so I don't remember them all.

24 MS. GHAFAR: Have you reviewed RTD-50?

25 WITNESS MULCAHY: Yes, I have.

1 MS. GHAFAR: Is it a true and correct copy of
2 your written testimony?

3 WITNESS MULCAHY: Yes, it is.

4 MS. GHAFAR: Does this accurately reflect your
5 knowledge and belief regarding the matters discussed?

6 WITNESS MULCAHY: Yes, it does.

7 MS. GHAFAR: Do you have any corrections to
8 your testimony?

9 WITNESS MULCAHY: No, I don't. I thought I
10 did, but it was corrected already.

11 MS. GHAFAR: Okay. Did you prepare this
12 testimony?

13 WITNESS MULCAHY: Yes, I did.

14 MS. GHAFAR: Okay. Thank you.

15 Please summarize your testimony.

16 WITNESS MULCAHY: Okay.

17 (Speaking Winnemen Wintu.)

18 My name is Gary Mulcahy, which I stated for
19 the record. That's my English name. My Indian name,
20 my Winneman name, is Ponti Tewis, and it means pull up
21 the truth, uncover it, and lay it out there.

22 I am the second Ponti Tewis since California
23 became a state in 1850, so it was an honor when this
24 name was bestowed upon me.

25 My testimony, I -- I'm -- I'm sorry. I don't

1 have a lot of slides like Tim there, so I might not get
2 a star.

3 So I'm going to try to summarize. I didn't
4 know about the bullet points and PowerPoints for the
5 summary.

6 (Laughter.)

7 WITNESS MULCAHY: But my testimony began with
8 a history of you to let you know a little bit about who
9 we are and where we come from, the Winnemem Wintu
10 people, and what has happened to us.

11 And as you can see through my testimony, it
12 talks about our interrelation with the Bureau of
13 Reclamation and the DWR throughout the last 75 years
14 and how things have transpired between the two of us,
15 the Winnemem Wintu Tribe, Bureau of Reclamation, which
16 also includes Department of Water Resources.

17 And before I go any further, I did want to
18 state for the record, even though it's stated in my
19 written testimony twice, is that we believe that any
20 allocation of water rights changes there to diversions
21 thereof, issuance of new, any issue at all dealing with
22 water rights should -- are illegal on its face because
23 you have never dealt with the tribal water rights which
24 would supersede even the Settlement Contractors.

25 So all of the -- All of the water rights we

1 profess are illegal on their face based on a first in
2 come first in right rule.

3 Well, if the first in come first in right rule
4 is necessary, then it's because the Indians were here
5 first. We were. So we believe they're illegal.

6 After I made that statement, I continued to go
7 on and talk about how indigenous people in California
8 have actually been treated by the State of California
9 since the beginning of California becoming a state.

10 We were hunted. There was bounties given for
11 us, \$5 a head. Those are documented. I don't need to
12 go into those any further.

13 Our lands were taken from us. There were 18
14 treatise that were put into -- that were signed in 1851
15 to 1852. Those 18 treatise covered the full State of
16 California, and out of these 18 treaties, not one was
17 ever ratified and signed.

18 And the reason why they weren't ratified and
19 signed is because the State of California Congressman
20 at the time lobbied the U.S. Senate and said, "Do not
21 get those ratified."

22 And the Senate lobbied Millard Fillmore to not
23 sign the treaty. So they hid them away and they
24 mysteriously rose back up again 50 years later after
25 the . . . after the law was passed that no more

1 treaties could be made with -- with the Indians
2 anywhere in the United States. So that was kind of
3 convenient.

4 However, the lands that were supposedly could
5 be ceded in those treatise for reservations, for places
6 that we could call home, for of all those signatories
7 to those 18 treaties, the lands that were supposedly to
8 be ceded were never ceded since the treaties were not
9 ratified.

10 And since they were never ceded, they still
11 belong to the tribes and to the individuals that were
12 on those.

13 And I know we're not going to go and
14 relitigate Indian law here and what has transpired, but
15 this is what has happened in the past.

16 Out of those lands that were ceded, the U.S.
17 Forest Service made its National Forest on the
18 boundaries of most of those ceded lands. And the State
19 of California took the rest because they thought that
20 those lands had been ceded and nobody told them the
21 treaties were never ratified. So we were without
22 lands.

23 Because of that . . . we've had burial
24 grounds, cultural gathering places, spiritual places,
25 birth places, sacred sites, places that my grandfather

1 and grandmother, my great-grandfather and
2 great-grandmother, and even I have been able to go to
3 are no longer there because they've been paved over,
4 they've been logged out, they've been burned out, so
5 that they could go in and be planted with a forest
6 that's not even indigenous to the area.

7 It's been dug up and flooded out, dammed out,
8 because they built dams that flooded out our sacred
9 sites, and we have got nothing.

10 So we're here to talk about this Change
11 Petition because this Change Petition started through
12 us in 1851.

13 When you didn't ratify the treaties, when
14 California said, "No, we don't want to do that. We
15 want the resources for ourselves. We want those
16 Indians gone. We're going to issue \$5 bounty for every
17 Indian scalp that you can bring to us." And they did.

18 So let's move on. We've established that part
19 there, that we're hurt, and we still hurt. We will
20 hurt forever until some justice is done.

21 So we'll go on to the establishment of -- of
22 the CVP and the CVPIA law that helped augment it later
23 on.

24 But the CVP and its initiation of Shasta Dam.
25 BOR.

1 In 1937, they passed Public Law -- In 1937
2 they passed Public Law 137, which turned out to be 55
3 Stat. 612. And 55 Stat. 612 was entitled the CVP
4 Indian Lands Acquisition Act and for other purposes.

5 And the reason this law was passed -- and you
6 can look at the history of the debate on it -- was
7 because that they could not find all of the Indians
8 that had received allotments, or the Indians that were
9 on historical tribal hands in the area.

10 They knew they were going to build a dam, so
11 they passed this law in order to convey the land to the
12 government and take possession away from the Indians.

13 But within that law, there was some specific
14 caveats that BOR, the implementing agency, was supposed
15 to do, required to by law, to fulfill that act.

16 And one was to provide just compensation for
17 the land, to provide infrastructure or like land, and
18 to provide a cemetery where all those burials that were
19 going to be flooded out could be moved to and placed in
20 the name of the tribe or the family, as the case may
21 be.

22 There was no compensation done. There was no
23 like land given. And the cemetery that was put -- that
24 was allocated by Bureau of Reclamation wasn't even put
25 into trust. As a matter of fact, it was named the

1 Shasta Reservoir Indian Cemetery.

2 There was never any Shasta Reservoir Indians.
3 The only Indians that were originally placed -- Native
4 Americans that were originally placed in that cemetery,
5 the burials that were moved were Wintu, Winnemem Wintu.

6 And let me explain what Winnemem means.
7 Winnemem is -- "Winne" is middle. "Mem" is water.
8 Middle water. "Wintu" means people.

9 So we are the middle water people. But our
10 traditional lands span the whole upper Sacramento,
11 McCloud Watershed.

12 We were all the way up the Sacramento on the
13 east side. We were all the way up the McCloud river,
14 all the way up to Mount Shasta, the middle, and we were
15 all the way up to -- up to Big Bend on the Pit River
16 site, Squaw Valley, that was all Winnemem Wintu
17 territory.

18 Well, the lands that -- that the tribe did
19 have that were to be inundated, BOR came in and
20 bulldozed the houses down so that the water wouldn't
21 flood any live people. They only wanted to flood dead
22 people, I guess. So we had no lands.

23 And under that -- under that lake now is about
24 90 percent of our traditional historical sites,
25 cultural sites, sacred sites, and about 4480 allot --

1 acres of allotments that are in there. 4,480 acres of
2 allotments that are under it.

3 So in that particular case, BOR did not follow
4 the law and did not implement what they were required
5 to do by the law.

6 So we'll move on to 2004 when DWR and Bureau
7 of Reclamation put together an OCAP, a new OCAP, which
8 is Operational Criteria and Plan.

9 And in that Operation and Criteria Plan (sic),
10 they removed requirements of coldwater pools and
11 coldwater temperature gauges 19 miles up the Sacramento
12 River.

13 They removed the 1.9 coldwater pool
14 holdover -- carryover that was supposed to remain in
15 Shasta Dam in order to help protect Salmon. And Salmon
16 is the traditional sustenance of the Winnemem Wintu
17 tribe.

18 We consider it a sacred cultural asset. That
19 asset traveled from the Upper McCloud all the way down
20 through the Delta out to the ocean and all the way back
21 up. That's why we have an interest in this.

22 Those Salmon still will travel from out in the
23 ocean up to the McCloud River once a volitional passage
24 is put in.

25 But, anyways, in that OCAP, they removed those

1 requirements even though it was going to further
2 endanger the Salmon.

3 There was a Biologic Opinion that was issued
4 on that OCAP. It was found that the Draft Biological
5 Opinion on that OCAP said that there was going to be
6 jeopardy to the Salmon. But when the official OCAP
7 Biological Opinion was issued in 2004 on that -- on
8 that, it said that there would be no jeopardy.

9 Well, an investigation was ensued -- ensued,
10 Representative Miller, 18 Congresspeople, all kinds of
11 people started an investigation and found that this
12 document had been altered, and now that they had to go
13 back and do a -- a -- issue of a new Biological
14 Opinion.

15 But, in the interim, we as well as about seven
16 other people filed suit against the 2004 OCAP, the
17 Winnemem Wintu did, because it was jeopardizing -- it
18 would jeopardize the Salmon and initiation recoupled.

19 So, again, it shows -- it goes to intent. I
20 think it goes to intent or mindset that no matter
21 what -- what the carrot is that's put out there as far
22 as DWR or BOR will say the purpose of water -- this
23 water is for either coequal goals or for Salmon
24 restoration.

25 The actual intent is to get as much water down

1 the Sacramento River past the Delta into agriculture as
2 possible.

3 And the one thing that kind of shows this is
4 that, when they removed the coldwater requirement to
5 hold \$1.9 million over behind Shasta Dam, they removed
6 that to a managed amount.

7 Coincidentally, in the following years,
8 1 million-plus, 1,000,000.2 acre-feet extra of water
9 was -- was transferred down the Delta, down past the
10 Bay, down to Westlands Water District, Delta-Mendota
11 Canal, District agriculture down past the Delta.

12 So it's not a coincidence that this amount
13 over here got reduced and this amount over here got
14 increased.

15 Sorry.

16 So now we go to this California -- the
17 WaterFix.

18 The WaterFix, in our view, the Winnemem
19 Wintu's view, is just an extension of or a continuation
20 of the practice and policy that's been going on this
21 whole time since the inception of the CVP.

22 It's to get as much water out of the
23 Sacramento River down and diverted down to wherever
24 they can divert it to at whatever cost. It matters.
25 What -- Whatever cost it takes.

1 We believe that this Project not only will
2 endanger the Salmon further, because the studies -- I
3 don't have to talk to you about the studies. You've --
4 You've heard enough about them in here already, and I'm
5 not an expert on studies, anyways. I'm just -- I just
6 see where the Salmon used to be when I was a kid
7 growing up and where they are now.

8 Lost my train of thought. That's what bullet
9 points will do.

10 But it's -- it's interesting that Westlands
11 Water District bought 3,000 acres of land on the
12 McCloud River in order to ensure, by their own words,
13 that it would remove an impediment for the raise of
14 Shasta Dam.

15 It's interesting to note that Metropolitan
16 Water District bought, what was it, five islands in the
17 Delta to purportedly -- well, we -- we know what the --
18 we can assume what the purpose is and others, to
19 further make available water to -- to transfer down.

20 We believe that the -- The tribe believes that
21 in order for the tunnels -- because we're now talking
22 two tunnels still because that's where we're at as a
23 beneficial change -- that in order for the tunnels to
24 be successful, as far as having water to divert down,
25 they have to build Sites Reservoir. They have to

1 enlarge Shasta Dam in order to make enough water
2 available to siphon off the Sacramento River because
3 Sites Dam is not an onstream, it's an off extreme
4 reservoir. In order to fill it with water, you've got
5 to move water from the Sacramento River into Sites
6 Reservoir.

7 Where does that water come from? It comes
8 from up north.

9 And also it is to increase the flows out of
10 the Trinity River into Whiskeytown Lake in order to
11 drop in to the Sacramento River. And that would also
12 get flown into Sites Dam, which would help -- which
13 would help the tunnels or the transference.

14 To enlarge Shasta Dam creates another 345,000
15 acre-feet. That water is supposed to be done for fish.
16 But if you look at their proposed CP4 as opposed to
17 their CP4A, they profess that the alternative that
18 they're talking about that they like actually gives
19 more water to diversion and not to fish.

20 So their -- their comment, again -- this is
21 BOR -- is not reliable.

22 But if they do raise Shasta Dam, enlarge
23 Shasta Dam, in order to help make more water available
24 that can be transferred to Sites and transferred down
25 the river, it will flood the remainder of what sacred

1 sites and village sites that we still use today on the
2 McCloud River.

3 Lastly --

4 (Timer rings.)

5 WITNESS BARRIGAN-PARRILLA: I know my time's
6 up.

7 Lastly -- I guess lastly -- to summarize is
8 that we -- If I -- If somebody asked me permission for
9 an acorn and I give them an acorn, in order to get a
10 second acorn, they have to come and ask permission and
11 get a second acorn.

12 This Change Petition is taking an existing
13 permission and wanting to divide it into two acorns
14 from one permission.

15 We believe that if you have the right -- This
16 is built for dual conveyance.

17 If -- If you build the right to have dual
18 conveyance, with the tunnels and the transfers through,
19 they talk about dual conveyance, that if you have the
20 ability to do two things, then you need permission to
21 do both things.

22 You would need a Permit for the first one and
23 a new Permit for the second one. Because you could do
24 both things at the same time.

25 In other words, this shouldn't be a Change

1 Petition. This should be an application for a new
2 Permit because it's a new water right.

3 They have the right to divert water now down
4 through the Delta, down through the Delta. They don't
5 have the right to divert water around the Delta.
6 That's a new right. Different rights.

7 So we believe that this shouldn't even be
8 granted. This should not even be a Change Petition.
9 It's a new water right.

10 And we also believe that any new rights
11 changes their two applications there of new ones
12 allocated should be denied until such time as you
13 determine tribal water rights in the State of
14 California.

15 Thank you.

16 CO-HEARING OFFICER DODUC: Thank you.

17 Does that conclude your direct?

18 MS. ROBERTSON: Yes, that concludes our
19 direct.

20 CO-HEARING OFFICER DODUC: Right. I'll ask
21 you to move over so that Mr. Mizell can come up.

22 Oh, maybe not. Mr. Mizell?

23 MR. MIZELL: Yes. I can certainly go over
24 there in a -- in a minute.

25 I had a chance to review PCFFA's latest e-mail

1 and letter, and I believe I understand the panel
2 structure that they're proposing. So what I said
3 before about how they were structuring their witnesses,
4 yes, that was superseded.

5 What wasn't clear to me, though, is if they're
6 still requesting to go ahead of Dierdre Des Jardins'
7 group or not.

8 And so just so that we're not preparing for --

9 CO-HEARING OFFICER DODUC: My understanding is
10 that, yes, they're still requesting to go ahead with
11 Miss Des Jardins.

12 However, you bring up a good point in that
13 they are assuming that we will get to Miss Des Jardins
14 on Monday, and I don't know if we will.

15 MR. MIZELL: Very good.

16 And I will start cross-examination if it's
17 your pleasure. I have, as we've indicated, a little
18 bit lengthy cross-examination. It is -- It is only for
19 Mr. Stroshane and Miss Barrigan-Parilla.

20 If there is somebody else who has
21 cross-examination for any of the other two witnesses
22 and that can be done today, they may not have to
23 return.

24 CO-HEARING OFFICER DODUC: Let me ask: Your
25 cross-examination for Mr. Stroshane, or

1 Miss Barrigan-Parilla, could one of them be done within
2 the next 15 minutes?

3 MR. MIZELL: Unlikely.

4 CO-HEARING OFFICER DODUC: Unlikely.

5 In that case, then, I will suggest we
6 reconvene tomorrow to begin the cross-examination.

7 I would suggest, Miss Robertson, or
8 Miss Ghafar, that you contact Miss Meserve, Mr. Ruiz,
9 Mr. Keeling and Mr. Jackson, who is still -- the only
10 one still here, regarding their cross-examination.

11 They are the only four that have indicated
12 they wish to cross-examine this panel besides the
13 Department of Water Resources, and ask them if all four
14 witnesses need to come back tomorrow for their
15 cross-examination.

16 MS. ROBERTSON: Thank you. We'll do that.

17 CO-HEARING OFFICER DODUC: Yes.

18 And if I do not get the opportunity to see --
19 Well, I'm going to get to see two of you. If I don't
20 get the opportunity to see Mr. Mammon and Mr. Mulcahy
21 tomorrow, thank you for appearing.

22 Thank you for sharing your experience and your
23 perspective. We really appreciate it.

24 It's always -- As much as I appreciate
25 Mr. Stroshane's technical style, the personal testimony

1 and the sharing of life experience is also welcome and
2 very much appreciated.

3 WITNESS MAMMON: Thank you.

4 CO-HEARING OFFICER DODUC: Oh, I'm sorry.

5 And, Mr. Mammon, C.A.S.T. stands for Catch a Special
6 Thrill for Kids.

7 WITNESS MAMMON: Thank you.

8 CO-HEARING OFFICER DODUC: All right.
9 Miss Ansley.

10 MS. ANSLEY: Just a housekeeping to make sure
11 I have tomorrow straight.

12 So my understanding is, once we complete
13 Restore the Delta, up next tomorrow is Friends of the
14 River, and I believe they are well aware of that
15 obviously.

16 CO-HEARING OFFICER DODUC: Correct.

17 MS. ANSLEY: And --

18 CO-HEARING OFFICER DODUC: And so, since I
19 have you, what is the estimate cross for Friends of the
20 River?

21 MS. ANSLEY: I -- I do not think that our
22 cross would be longer than . . .

23 (Counsel confer.)

24 MS. ANSLEY: I think it's about 40 minutes. I
25 think that's the estimate I gave before as well.

1 And then my understanding is that we will move
2 to Panel 1 of the Environmental Justice Coalition but
3 then that would be our stop for the day?

4 CO-HEARING OFFICER DODUC: That is correct.

5 MS. ANSLEY: Okay. Thank you for confirming.

6 CO-HEARING OFFICER DODUC: We will not go
7 beyond Panel 1 for EJCW, if we make it that far.

8 MS. ANSLEY: Okay. Thank you.

9 CO-HEARING OFFICER DODUC: All right. Thank
10 you all.

11 We will see you tomorrow at 9:30.

12 MS. ROBERTSON: Thank you.

13 (Proceedings adjourned at 4:30 p.m.)

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1 State of California)
2 County of Sacramento)

3

4 I, Candace L. Yount, Certified Shorthand Reporter
5 for the State of California, County of Sacramento, do
6 hereby certify:

7 That I was present at the time of the above
8 proceedings;

9 That I took down in machine shorthand notes all
10 proceedings had and testimony given;

11 That I thereafter transcribed said shorthand notes
12 with the aid of a computer;

13 That the above and foregoing is a full, true, and
14 correct transcription of said shorthand notes, and a
15 full, true and correct transcript of all proceedings
16 had and testimony taken;

17 That I am not a party to the action or related to
18 a party or counsel;

19 That I have no financial or other interest in the
20 outcome of the action.

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22 Dated: April 4, 2018

23

24

25

Candace L. Yount, CSR No. 2737