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	1	SUPERIOR COURT OF THE STATE OF CALIFORNIA		
/	2	FOR THE COUNTY OF SANTA CLARA		
	3			
	4	ORIGINAL		
	5			
	6	ANTELOPE VALLEY) Santa Clara Case No.		
	7	GROUNDWATER CASES,) 1-05-CV-049053		
	8) VOLUME I		
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	13			
- interfer	14	Deposition of JUNE A. OBERDORFER, Ph.D., at		
	15	301 North Lake Avenue, 10th Floor, Pasadena,		
	16	California, commencing at 11:02 a.m., Thursday,		
	17	November 4, 2010, before Janice Schutzman,		
	18	CSR No. 9509.		
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	21			
	22			
	23			
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	25	PAGES 1 - 110		
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1	the state of the aquifer includes.
2	Was that your own independent assessment of
3	what the state of the aquifer means?
4	A. I may have taken that from some of the
5	judge's wording. 11:52AM
6	Q. In the third sentence, you say:
7	"It also includes determining the
8	sustainable yield of the aquifer."
9	What is your understanding of the term
10	"sustainable yield of the aquifer"? 11:53AM
11	A. That amount of water that can safely be
12	taken out so that there aren't significant negative
13	consequences to the basin.
14	Q. What would you describe as significant
15	negative consequences to the basin? 11:53AM
16	A. Falling water levels, wells going dry,
17	excessive pumping lifts, land subsidence,
18	degradation of water quality.
19	Q. After you say it also includes determining
20	the sustainable yield of the aquifer, you also say: 11:54AM
21	"And whether the groundwater basin
22	is in overdraft."
23	Would you describe for me your
24	understanding of what "overdraft" means?
25	A. Overdraft would be when the extractions 11:54AM
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it's close to 40 percent is just very, very different than what you'd expect in an arid or semi-arid groundwater basin. It's just way too high. That's the sort of fraction you might expect in a place like the Pacific Northwest, where you've 02:11PM got heavy rainfall and gray days and not a lot of sunshine. So it's just unreasonably high. 0. Do you believe it's unreasonable because he's not considering enough evapotranspiration? 10 A. Right, I think he's underestimating 02:11PM probably evapotranspiration. 12 Q. Any other elements of that approach that 13 you have concerns with? 14 A. It's a very simple approach. It's 15 basically precipitation minus evapotranspiration. I 02:11PM 16 think he does include I'm trying to remember now. 17 He might include playa flooding, but he's got a very 18 small number, about one-ninth of what Durbin has 19 from what I my understanding is they're 10 historical records of playa flooding. But I think 02:12PM 21 that makes a small difference in his answer. 22 Q. So the one major difference would be		
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Page 68	25	Q. When is the last time that you're aware of 02:12PM
		Page 68

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1	that there was significant subsidence anywhere in	
2	the Antelope Valley adjudication area?	
3	A. You know, it's continuing, so it would	
4	depend on what your definition of "significant" is.	
5	Most of the subsidence took place, I think,	02:13PM
6	in the '60s and '70s, and it's been tapering off	•.
7	since then.	
8	Q. Are you aware of any locations that	
9	currently are experiencing subsidence?	
10	A. I don't think I've seen any data since the	02:13PM
11	'90s since USGS looked up through that period. So	
12	for the last 10 or 15 years, I haven't seen they	
13	did some, I think, Lidar studies, so radar studies,	
14	but that was looking more at short term, sort of	
15	seasonal subsidence in response to pumping, not long	02:13PM
16	term.	
17	Q. When you say "they," who do you mean?	
18	A. USGS, I think.	
19	Q. In the work that you've done at the Air	
20	Force Base, have you observed any recent	02:13PM
21	subsidence	
22	A. Haven't	
23	Q say within the past 10 years?	
24	A. I haven't really worked down in that area,	
25	so no.	02:14PM
	Pa	ige 69

1	"Ongoing pumping in excess of
2	sustainable yield has resulted in
3	ongoing declining groundwater levels and
4	associated ongoing depletion of
5	groundwater storage by an average of 03:02PM
6	more than 50,000 acre feet per year over
7	the last 10 years."
8	Can you explain to me why the first hash
9	says 40,000 acre feet per year over the last decade
10	but the second hash says an average of more than 03:02PM
11	50,000 acre feet per year over the last 10 years?
12	A. I don't know. Let me read that again more
13	carefully.
14	Q. Sure. Sure. Take your time.
15	A. No, I don't know the answer to that. I 03:03PM
16	would assume they should both be around 40- to
17	45,000.
18	Q. And then just on the V-2, the last sentence
19	says:
20	"The most damaging effects of the 03:03PM
21	historical land subsidence have been the
22	occurrence of ground fissures in areas
23	of differential land subsidence, e.g.,
24	at Edwards Air Force Base."
25	To your knowledge, when was the last time 03:04PM
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1	that ground fissures in areas of differential land	
2	subsidence were observed at Edwards Air Force Base?	
3	A. I think it was the late 1990s. But it	
4	could have been the mid 1990s. I don't know.	
5	MR. SLOAN: Okay. I have no more	03:04PM
6	questions.	
7	MR. BUNN: I may have a clarifying question	
8	or two, but could I take a minute first? Could we	
9	have a little break?	
10	MR. SLOAN: Sure.	
11	(Recess taken.)	
12	MR. BUNN: I don't have any questions.	
13	MR. MILIBAND: I think I might just have 10	
.14	minutes' worth.	
15		
16	EXAMINATION	
17	BY MR. MILIBAND:	
18	Q. Good afternoon, Doctor. My name is Wes	
19	Miliband. I represent Phelan Pinon Hills Community	
20	Services District.	03:14PM
21	Now, for simplicity purposes, I might refer	
22	to Phelan Pinon Hills Community Services District	
23	simply as Phelan.	
24	Is that okay with you, Doctor?	
25	A. Okay.	03:14PM
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