Public Hearing **STATE WATER RESOURCES CONTROL BOARD** STATE OF CALIFORNIA

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Subject: El Dorado Project Proposed by El Dorado County Water Agency and El Dorado Irrigation District, Applications 29919, 29920, 29921 and 29922, Petition for Partial Assignment of State Filed Application 5645

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Held in Bonderson Building Sacramento, California

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Monday, June 21, 1993 9:00 a.m.

VOLUME IV

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MONDAY, JUNE 21, 1993, 9:00 A.M. 1 2 --000--MR. STUBCHAER: Good morning. 3 4 We will resume the El Dorado water rights hearing. The order of procedure, the Forest Service has no 5 more than 20 minutes of testimony. Their witnesses can only 6 be here today. 7 Are there any objections that we take the Forest 8 9 Service out of order first thing this morning? MR. VOLKER: No, Mr. Chairman. 10 MR. STUBCHAER: All right, hearing none, we will 11 12 call on the El Dorado National Forest. Is it Ms. Yandoh? MS. GORDON: No, it's Janice Gordon and Karen Leyse, 13 who will be speaking concerning Lake Aloha. 14 MR. STUBCHAER: As a matter of fact, we might as 15 well swear all the potential witnesses who intend to give 16 17 testimony today. All those persons who intend to testify today who 18 19 have not previously taken the oath, will you please stand 20 and raise your right hand. (The witnesses were sworn.) 21 Ms. Gordon. 22 23 JANICE GORDON, having been sworn, testified as follows: 24 MS. GORDON: My name is Janice Gordon and I am with 25 the El Dorado National Forest. There was a statement that 26 summarized my experience. I do not know if it got into the 27 28 record or not and is an exhibit. 29 If there's anyone that requires it, I have copies I have just about a page and a half that was prepared 30 here. before, so I will just read it roughly. 31 My name is Janice Gordon. 32 I am the Acting Resource Officer for the Amador Ranger District of the El Dorado 33 34 National Forest. I am responsible for recreation programs on the 35 36 District. Any Forest Service employee who works in recreation 37 38 can tell you that the most popular campground and recreation areas in the District are those that are located near lakes. 39 40 This is certainly true in my District, as shown by the tremendous amount of use the campgrounds, the day-use areas, 41 resorts, recreational residences and organization camps 42 receive in the Caples and Silver Lakes area. 43 44 Silver Lake is currently the most intensively developed recreation area in the District. 45

Concentrated within the basin on National Forest 1 lands are 78 recreation residences, 3 organization camps, 62 2 family campground units, and 1 resort with 17 cottages, 2 3 4 duplexes and 8 motel rooms. Located on PG&E land are 7 recreation residences, 35 5 6 family campground units, 2 day-use sites and 1 resort with 9 cabins. 7 Significant drawdown in the lake basin does not 8 9 occur until after Labor Day. This is an important factor in making the lakes attractive to summer sunbathers, swimmers, 10 fishermen and boaters. 11 12 Caples Lake has a somewhat less development. The area has 13 residences, a 35-unit campground, and a resort 13 with 7 cabins and 9 lodge rooms. 14 Due to accessibility from Highway 88 which parallels 15 the west and north shores for two and a half miles, the lake 16 17 receives a relatively high proportion of day use compared with overnight use. This use includes boating, fishing and 18 19 hiking along the lake shore. Although the lake drawdown starts in August, Caples 20 21 Lake's gentle shore profile makes the drawdown somewhat less evident. 22 23 The Forest Service campground at Silver Lake is the most popular campground on the Amador Ranger District. 24 Ιt served 18,000 people last year which translates to 25 approximately 27,000 recreation visitor days of use in 1992. 26 27 The Caples Lake campground served over 8,000 people 28 and received 12,000 recreation visitor days of use, the 29 third highest use campground on the Amador Ranger District. Forest visitors to these lakes enjoy boating, 30 31 canoeing, fishing, swimming, picnicking and hiking along the shores of the lake. All visitors enjoy the spectacular 32 views of the lakes from Highway 88, and without an agreement 33 that insures that the historical levels of these lakes will 34 be maintained during the summer months, future visitors' 35 36 recreation experience could be dramatically impacted. If the lakes were close to the Labor levels during 37 38 the busy summer months, forest visitors would not be able to fish from the popular accessible Sandy Cove to Kit Carson 39 40 area of Silver Lake. Fishing would be very difficult at Caples Lake. The beaches and waterfronts at the Boy Scout 41 camps, Minkalo and Silverado, and the Kit Carson and Caples 42 Lake resorts could not be used. 43 44 Also, the floating docks belonging to cabin owners of the East Silver Lake and South Silver Lake residences 45

could not be used. Boats, canoe and sailboat launching 1 2 would be difficult, if not impossible at both lakes. All forest visitors would have reduced aesthetic enjoyment of 3 4 the lakes. During the 1980s, the Forest Service conducted an 5 extensive study of recreation use at the Caples and Silver 6 Lake area. This study was published in January, 1987, as 7 the Draft El Dorado National Forest Highway 88 Future 8 Recreation Use Determination Environmental Impact Report, 9 otherwise known as the FRUD. 10 Pages 330 to 334 and 335 to 339 of that report 11 12 contain a complete description of the activities and uses at Caples and Silver Lakes during the summer recreational 13 season, including locations of beaches, parking, reservoir 14 operations, history of use, et cetera. 15 Attached to my testimony are excerpts from the FRUD 16 17 pertain to Silver and Caples Lakes. Of particular interest is the chart on page 384 depicting traffic volumes at Silver 18 19 Lake. 20 And if I may also add, traffic volumes have steadily 21 increased since 1984 from an average of 1800 vehicles per 22 day to 2400 vehicles per day recorded in 1992. 23 MR. STUBCHAER: Thank you. 24 MS. KATZ: Excuse me, could I interrupt for just a minute so we can get our exhibits straight? 25 MR. STUBCHAER: All right. 26 MS. KATZ: We will call the testimony of Janice 27 28 Gordon Exhibit 1 and her Qualifications Statement as Exhibit 29 2, if she would see to it that staff and everyone else gets a copy this morning. 30 Karen Leyse's testimony would be Exhibit 3 and her 31 Qualifications Statement would be Exhibit 4, and then the 32 excerpt from FRUD would be U. S. Forest Service Exhibit No. 33 34 5. Was your testimony distributed to 35 MR. STUBCHAER: 36 all parties? I believe it was. 37 MS. LEYSE: MS. GORDON: I distributed it when I was here last 38 39 week. 40 KAREN LEYSE, having been sworn, testified as follows: 41 MS. LEYSE: Again, I will read the testimony that 42 43 was distributed last week. 44 My name is Karen Leyse and I am the Recreation Assistant to the Pacific Ranger District of the El Dorado 45

National Forest. I serve as Wilderness Manager for that 1 2 portion of the Desolation Wilderness including the Lake Aloha area within the El Dorado National Forest. 3 4 I also serve as the interdisciplinary team leader for the ID team which is currently revising the management 5 guidelines for the Desolation Wilderness. 6 7 Testimony regarding the Lake Aloha as admitted during the prewritten submittal, so I prepared this 8 9 testimony and I asked Ms. Gordon to submit it into evidence. In addition, I am now presenting it myself. 10 Desolation Wilderness was created in 1969 by an act 11 12 of Congress, Public Low 90-82. It is one of the most heavily used wilderness areas in the United States on a per-13 acre basis. 14 The El Dorado National Forest and Lake Tahoe basin 15 management unit which share administration of the Wilderness 16 17 reported a total of 291,000 recreation visitor days for both day use and overnight use in 1992. 18 19 The 1969 Act which created the Wilderness lists the 20 area's popularity and superb mountain scenery as reasons for 21 the area's inclusion in the National Wilderness Preservation 22 System. 23 Public Law 91-82 stipulates that Desolation Wilderness be administered in accordance with the provisions 24 25 of the Wilderness Act of 1964. As defined in the Wilderness Act of 1964, a 26 wilderness, in contrast with those areas where man and his 27 28 own works dominate the landscape, is an area where the earth 29 and its community of life are untrampled by man, where man himself is a visitor who does not remain. 30 And the area of a wilderness is further defined as 31 an area of undeveloped land retaining its primeval character 32 and influence without permanent improvement or human 33 habitation, which is protected and managed so as to preserve 34 the natural condition and where the imprint of man's work is 35 36 substantially unnoticed. Due to the FERC license facility, Lake Aloha and the 37 38 reservoir were excluded from the Wilderness itself by that However, they are to be managed in a manner which is 39 act. consistent with the surrounding Wilderness. 40 Lake Aloha lies at the center of Desolation Valley 41 42 within Desolation Wilderness. The valley is a large, open, glaciated basin approximately three miles long and more than 43 44 a mile wide.

When at capacity Lake Aloha is approximately two 1 2 miles long by one mile wide at its widest point. The valley and lake are visible from many points within the Wilderness, 3 4 including such popular peaks as Pyramid Peak, Mount Price and Mount Tallac (phonetic). 5 The Pacific Crest Trail, which is a national 6 7 recreation trail, extends along three miles of Lake Aloha shoreline. As such, the lake is a focal point for many 8 9 Wilderness visitors. Every visitor to Wilderness Lake is required to 10 complete a Wilderness permit. We survey those permits to 11 12 establish uses each year. And for the period between October 1, 1991, and September 30, 1992, a survey of those 13 permits indicates that Lake Aloha was a destination point 14 for probably ten percent of the overnight use within the 15 Wilderness. 16 17 In addition, one-half of day hikers entering the Wilderness from Echo Lake, which is a popular wilderness 18 19 trailhead were destined to Lake Aloha and the surrounding 20 area. Many other backpackers and day hikers like the three 21 miles of Pacific Crest Trail along the lake shore on their 22 23 way to camping destinations, picnic areas from various trail 24 heads. 25 Wilderness visitors are attracted by the scenic beauty to be found in Desolation Wilderness. The lakes 26 within the Wilderness are the major reason for the high 27 28 visitation levels and are the destination point for camping, swimming, picnicking, fishing and taking photographs. 29 Due to the broad shallowness of the Aloha basin, 30 increased drawdown levels would expose larger amounts of 31 shoreline and greatly decrease the attractiveness and 32 perceived naturalness of the Aloha basin. 33 Without an agreement to assure that the historical 34 drawdown rates, the historical timing of drawdown and the 35 36 historical levels of this lake will be maintained, the Wilderness experience of future visitors could be 37 38 drastically affected. 39 In addition, changed flow regimes could affect the 40 naturalness of aquatic and riparian environments, both at Lake Aloha itself and along Pyramid Creek, and the eight 41 other lakes through the creek flows. These lakes are 42 downstream from Lake Aloha and are within Desolation 43 44 Wilderness.

1 I do attest that this testimony is true based on the 2 data gathered from yearly reporting purposes. MR. STUBCHAER: All right, thank you. 3 4 Who wishes to cross-examine these witnesses? Mr. Somach and Mr. Jackson. All right, Mr. Somach. 5 6 CROSS-EXAMINATION 7 MR. SOMACH: by Are you familiar with the Environmental Impact 8 0 9 Report that was prepared for the El Dorado project? MS. GORDON: A Are you referring to the FRUD or --10 No, the Environmental Impact Report prepared by El 11 Q 12 Dorado County Water Agency for the El Dorado project, the project that is the subject of the hearing here today. 13 I am not that familiar with it, no. 14 А Are you aware of whether or not the El Dorado County 15 0 Water Agency or the El Dorado Irrigation District will be 16 17 operating the lakes that you have testified about? My understanding at this point is that the operation 18 А 19 is by PG&E. I do not know exactly where El Dorado County or 20 El Dorado Irrigation District would come into that process. 21 Q Is that the same for you? 22 MS. LEYSE: A Yes. 23 Q I noticed in your testimony, Ms. Gordon, that you indicated that without an agreement that insures historic 24 levels of these lakes will be maintained during the summer 25 months, future visitors' recreation experiences could be 26 dramatically impacted. 27 28 Is that accurate? 29 MS. GORDON: A Yes. So, as I understand, implicit in that statement is 30 Q that historic operations during summer months have, in fact, 31 been sufficient to allow summer recreation around and within 32 33 these lakes; is that correct? For the most part, yes. 34 There is an attempt to Α maintain the high levels of the lakes during the summer 35 36 months as much as the water situation will allow. These last six years of drought have affected that somewhat, but 37 38 for the most part, they have been maintained fairly full. Well, in that regard, would you have an objection if 39 0 permittee, El Dorado, in this case El Dorado County Water 40 Agency and EID, were to agree not to make any requests or 41 agreements with PG&E for any operational change in these 42 lakes from what they have been during the historic period, 43 44 or the way they have been operated historically? You wouldn't have any objection to that; would you? 45

If there was an agreement that the historical levels 1 Α 2 would be maintained in those lakes and that the historical level would be defined as being as, you know, to a full 3 4 level, whatever that actual historic level has been, I would not have any objection. 5 Okay. Now, when you say maintained, since PG&E 6 0 operates the facilities, El Dorado couldn't do anything to 7 maintain lake levels; could they? 8 I don't know, because I do not know the relationship 9 Α between PG&E and El Dorado at this point. 10 Assuming that El Dorado has no control over the 11 0 12 operation of those lakes and that the lakes would be operated as they have been historically by PG&E, would you 13 have an objection at all to El Dorado agreeing to not make 14 any requests or any other agreements with PG&E to modify 15 their historic operations? 16 17 Again, I don't understand the relationship that much А between El Dorado and PG&E. All I know is that there needs 18 19 to be some sort of an agreement that historic levels of the lakes will be maintained. 20 Would you have an objection to an agreement on the 21 0 part of El Dorado that would indicate that the only water 22 23 that they could take out of the lakes would be water that PG&E had released on its own without request by the 24 permittee, and which is released as part of the PG&E's 25 normal historic operations of the lakes? 26 Again, it is something a little difficult for me to 27 Α 28 answer because I do not understand entirely the relationship 29 between El Dorado and PG&E. I just know that there needs to be an agreement that the historic levels of the lakes will 30 be maintained however that is accomplished. 31 I understand that, but the questions I have asked 32 0 you really go to that relationship. I am trying to 33 understand what it is that you would feel comfortable with, 34 so I have postulated two possible agreement scenarios. 35 36 One would be that El Dorado would make no attempt or any request of PG&E to have them operate those lakes in any 37 38 other way than the way PG&E had done so historically, and you have indicated that historic levels were sufficient. 39 40 Now, do you have any problems with that kind of 41 agreement? 42 А Well, it is really not my place to say whether I have a problem with that or not. I am not in a position 43 44 within the Forest Service to recommend that that be acceptable or not. My expertise lies in the recreation and 45

the District, and the recreation use on the District. 1 As 2 far as any agreement that is reached, and the substance of that agreement, that would be up to someone other myself. 3 4 All I can speak to is that there is need to have some sort of an agreement that will maintain those historic 5 6 levels. Well, in all fairness to the permittee here, you 7 Ο have indicated that without agreement that assures historic 8 levels of these lakes and that they will be maintained, 9 there will be a problem. And my questions have gone to what 10 that agreement looks like. 11 12 Is it your testimony that you don't have any opinion as to what that agreement would look like? 13 It is my testimony that I do not have the expertise 14 А to recommend what that agreement will look like. My 15 expertise, again, lies in the area of recreation and the 16 17 recreational use on the District. As far as recommending what type of agreement it will be and the substance of that 18 19 agreement, I do not have the expertise to say. 20 If the El Dorado operation will not affect historic Ο 21 levels which you have testified before were sufficient for 22 the purposes that you are concerned about, then if the 23 agreement were to provide that El Dorado diversions would 24 have no effect upon historic levels, that would be the kind of agreement you are looking for? 25 If the agreement would result in historic levels 26 А being maintained, then I would think that that would be 27 28 acceptable. 29 MR. SOMACH: I have no further questions. MS. KATZ: Could I just clarify the record for 30 31 future references? El Dorado Irrigation District and El Dorado County 32 Water Agency are the applicants in this proceeding, not the 33 permittee, so if that confused you or anyone else, no permit 34 has been issued as yet for those applications and petition. 35 36 MR. SOMACH: If I could just clarify, I didn't mean to, other than trying to guess what the State Board might do 37 38 ultimately, I was, of course, reading from Exhibit 69, which was a proposed term or condition which did use the word 39 40 permittee. That is why I used the term. MS. KATZ: I understand that. 41 42 MR. STUBCHAER: Thank you both for your clarifica-43 tions. 44 Mr. Jackson. 45 MR. JACKSON: Thank you, Mr. Stubchaer.

My name is Michael Jackson and I am representing 1 2 Friends of the River in this case. CROSS-EXAMINATION 3 4 by MR. JACKSON: Either one of you can answer this as your knowledge 5 0 6 indicates. 7 The Forest Service operates under a general set of rules called National Forest Management Act; do they not? 8 9 MS. GORDON: Yes. And you also operate under a Forest Plan; do you 10 Q not? 11 12 Α Yes. One of the requirements under your regulations is 13 Q that essentially all vertebrate and all native vertebrate 14 species are to be protected; is that not correct? 15 We have the multiple use and so we need to consider 16 Α 17 all species and all parts of the environment in decisions. And in doing that, you are required by your 18 0 19 regulations to adopt management indicator species; are you 20 not? 21 А I do not know. You don't know how the system works? 22 0 23 А It is not our area of expertise, again. Do you know what the management of the indicator 24 0 species is for aquatic habitat in El Dorado Forest? 25 No, I do not. 26 А 27 Do you know anything about the process of wild and 0 28 scenic river jurisdiction in the Forest Service? 29 Very minimal on my part. А Do you know that a number of the areas that we are 30 Q talking about here have been recommended for wild and scenic 31 river by your Forest to the Congress? 32 33 MR. SOMACH: Objection. The areas he is talking 34 about here are less than specific. MR. JACKSON: Q Caples Creek, for instance, the 35 36 stream below Caples Creek, that has been recommended for National Wild and Scenic purposes; has it not? 37 38 Α Yes, that is my understanding. And areas around Caples Creek have been recommended 39 0 40 by the Forest to Congress as part of your land-management planning for wilderness; has it not? 41 42 Α That's correct. Was Lake Aloha originally a natural lake 43 0 44 historically?

MS. LEYSE: A It was historically a series of small 1 The dam that raised the elevation to one large lake 2 lakes. was constructed originally in the late 1800s. 3 4 Q But there was a lake there prior to its being enlarged into a reservoir? 5 There were a series of small lakes called Medley 6 Α Lakes. 7 Has the Forest Service done any fishery studies to 8 Ο your knowledge on Caples Creek, Pyramid Creek, and the 9 Silver Fork of the American River? 10 Not to my knowledge. 11 А 12 MS. GORDON: A I don't know. We often do not know exactly what our fishery biologists are studying or not 13 I should say I am not familiar with what they are 14 studving. 15 or are not studying. The U. S. Forest Service has promised to assess 16 0 17 Pyramid Creek's wild and scenic status by June of 1993. Has that been finished, to your knowledge? 18 MS. LEYSE: A To my knowledge, it has not been 19 20 finished. 21 And as far as either one of you, you do not manage Ο the wild and scenic river system within your Forest. 22 Ι 23 thought that was a resource officer's duty, or is it? MS. GORDON: A No, it is one of those areas that I 24 am not as familiar with. Like the exhibit indicates, I have 25 been working on the District for four years. I have only 26 been as the Acting Resource Officer for about the last six 27 28 months now and it's just not one of those areas that I am 29 familiar with yet. MR. JACKSON: All right, thank you. 30 I have no 31 further questions. MR. STUBCHAER: Thank you, Mr. Jackson. 32 Do you wish to introduce your exhibits into evidence? 33 MS. GORDON: 34 Yes. MR. STUBCHAER: Are there any objections to 35 36 receiving these exhibits into evidence? If not, they are accepted. Thank you very much. 37 38 MR. LAVENDA: Just one moment, please. MR. STUBCHAER: 39 I'm sorry. EXAMINATION 40 MR. LAVENDA: 41 by 42 0 Could you say something about the Forest Service's involvement in the current status of the water quality 43 44 impacts in the South Fork American River as a result of last year's Cleveland fire? Are you familiar with that incident? 45

MS. LEYSE: A We are familiar with that incident. 1 2 However, there is a special ID team that did deal with the facts of that fire and we are not part of that team, so we 3 4 do not have expertise to speak on that. MR. LAVENDA: Thank you. 5 6 MR. STUBCHAER: Thank you again. 7 Mr. Volker, your expert panel. I am sure the Forest Service appreciates the courtesy in allowing them to go 8 9 first, Mr. Volker. MR. VOLKER: Good morning, Mr. Chairman. 10 Before you begin, do you have an MR. STUBCHAER: 11 12 estimate of how much time you might require this morning to present your direct testimony? 13 MR. VOLKER: About an hour and a half. 14 MR. STUBCHAER: All right. 15 MR. VOLKER: We have three witnesses, all experts on 16 17 this panel; Dr. Robert Curry, a professor of geomorphology and forest hydrology at the University of California in 18 19 Santa Cruz. We have Professor Peter Moyle, a professor of 20 wildlife and fisheries biology at the University of 21 California at Davis. We have the testimony of Dr. George Clark, a director of the California Native Plant Society and 22 23 an expert in the flora of El Dorado County. They will address the following issues: 24 Dr. Curry 25 will first address deficiencies in the environmental review conducted by the applicants, in particular, the absence of 26 the magnitude, duration and frequency analysis of the 27 28 impacts of water diversions which are proposed. In layman's language, Dr. Curry will address how much, how long and how 29 frequently water will be taken from the South Fork American 30 River system with particular attention to the three high 31 mountain lakes, Silver, Caples and Aloha, in question. 32 Second, Dr. Curry will address the omission of 33 analysis of the storage requirements of the applicants to 34 meet the water use demand created by the projected 115,000 35 36 population in the first phase, and also, ultimately 150 plus thousand when Phase II is brought on line. 37 38 Third, Dr. Curry will address the economic consequences of the proposed rediversion of water presently 39 40 used to produce peak power, for consumptive water uses that will have differing demands from the use of that water for 41 the generation of electricity. 42 Fourth, Dr. Curry will address the implications of 43 44 the use of straight-line growth rate population projections

and suggest that that may be an inappropriate basis for 1 2 predicting population growth and demand for water. Finally, Dr. Curry will sum up with an analysis of 3 4 the need for a comprehensive operational model of how the water would be captured and distributed to meet the 5 projected demand. 6 7 Dr. Curry has a number of overheads which we will present during the course of his testimony. 8 9 In addition, we have a number of exhibits that supplement those that Dr. Curry prepared for the May 18 10 These are largely charts and graphs based on distribution. 11 12 existing documents with the State of California, Department of Water Resources, and the USGS, which he has reformulated 13 them in a manner that makes them more specifically usable 14 for analyzing this project. In fact, he has done much of 15 the work or some of the work at least that we feel the 16 17 applicants should have done to analyze the project. We will distribute these at the time of his 18 19 testimony. 20 Our second witness is Dr. Peter Moyle. He is the 21 leading expert on California native species. He has authored over a hundred publications in that field. 22 He has 23 testified before this Board on a number of occasions, most recently with regard to the D-1630 hearings, and he will 24 25 address three major points: First is the environmental review conducted by the 26 applicants appears to be incomplete and confusing, and it is 27 28 hard for him to make use of the information presented. 29 Second, the impact on the Delta of the first phase of this project could be very significant. 30 And finally, the cumulative impact of the first and 31 subsequent phases of this project, together with other 32 similar water appropriation projects that we can expect to 33 be proposed and to possibly be approved in the near future, 34 is considerable. 35 36 At present, we don't have new water in the Delta to assure maintenance of adequate populations of fish and 37 38 wildlife. Fish are becoming extinct or at least in jeopardy of extinction at the rate of one every 16 years presently. 39 40 And to stem this unhappy turn of events requires the retention of additional water for instream Delta uses rather 41 than extraction of additional water from the Delta, which 42 this project would accomplish. 43 44 Finally, our third witness is Dr. Clark. He has served on the El Dorado County Planning Department's Rare 45

Plant Advisory Committee and is familiar with eight plant 1 2 species located in the central Sierra foothills, including El Dorado County, which are presently in jeopardy and which, 3 4 if the urban development proposed in this project were to unfold as projected, would be jeopardized possibly to the 5 point of extinction. 6 7 Perhaps this would be a good time to distribute the additional charts and graphs generated from existing data so 8 that when Dr. Curry is under way, the audience can follow 9 along as he explains with his overheads the points that he 10 presented in his original testimony. 11 12 MR. STUBCHAER: If they are going to be used, they will have to be identified as exhibits and subject to 13 objection. 14 MR. VOLKER: We have numbered them RC-10 through 25. 15 MR. SOMACH: Mr. Stubchaer, I will object to these 16 17 exhibits. It is somewhat ironic, of course, that it's this particular testimony that presents these new exhibits in 18 19 light of the fact that Mr. Volker objected so strenuously to 20 any variation in the testimony by El Dorado when it put on 21 its testimony. Moreover, I recall specifically a statement made 22 23 earlier that if there were to be any more of these types of situations, that we all ought to know now so we can prepare 24 for them in some reasonable fashion. 25 Mr. Volker must have had these at least on 26 27 Wednesday. 28 I object to the introduction and utilization of the 29 exhibit with respect to the Geological Survey map and would have assumed at that time in light of that, that if there 30 was going to be some anticipated expert exhibit or testimony 31 of any kind to at least have been given some idea at that 32 I could have had my experts take a look at this over 33 time. 34 the last three or four days. At this point, it becomes entirely as a surprise, 35 36 and I think it ought to be excluded. Your Honor, if I may respond. 37 MR. VOLKER: 38 MR. STUBCHAER: Yes. Actually, these were generated in the 39 MR. VOLKER: last couple of days. I have not seen them before today. 40 Dr. Curry created them to illustrate points presented in the 41 testimony circulated on May 18. We can certainly limit 42 their use to their illustrative value, if that would be the 43 44 preference of this Board, but they don't add new information outside the files of the State of California and the USGS, 45

and the information they present is entirely consistent with 1 the analysis that was distributed on May 18. 2 These are designed purely to aid in the 3 4 understanding of the testimony that was distributed back in 5 May. MR. STUBCHAER: It seems to me that in the interest 6 of fairness that if these are accepted into evidence, that 7 we would have to hold this hearing open until tomorrow to 8 9 give the parties an opportunity to examine these and crossexamine on them. 10 That's fine. MR. VOLKER: 11 12 MS. KATZ: We also need some more copies. MR. VOLKER: How many more do you need? 13 I have two more right now. We will make more and get them before the 14 end of this morning. 15 MR. STUBCHAER: I will defer ruling on their 16 17 admissibility until after we see. MR. SOMACH: I would also like to bring to the 18 19 attention of the Chair at this point, and I have no idea 20 whether this testimony goes to that or whether this is some 21 additional testimony. I noted in reviewing the testimony that Mr. Curry 22 23 was go offer today that he makes a statement on page 15 of that testimony in paragraph 18, and in that paragraph he 24 Since the FEIR and supporting documents do not 25 says: evaluate any probabilistic streamflow events, I will present 26 27 some of those should I testify. 28 I don't understand why that was not in the written testimony so that it could be evaluated again by the El 29 Dorado witnesses. 30 31 MR. VOLKER: It is. It is paragraph 20. He will limit the examples to that identified in paragraph 20. 32 MR. SOMACH: Thank you. 33 34 ROBERT R. CURRY, having been sworn, testified as follows: 35 36 DIRECT EXAMINATION MR. VOLKER: 37 by 38 Dr. Curry, would you please state your name and Q address for the record, and spell you last name. 39 Robert R. Curry, C-u-r-r-y, 302 Otis Street, Santa 40 Α Cruz, California. 41 What is your present occupation? 42 0 I am a Professor of Environmental Geology at the 43 А 44 University of California at Santa Cruz where I teach water resources assessment and policy. 45

I will show you a document we have marked as Exhibit 1 0 2 11 and ask you if this is a correct statement of your testimony in this proceeding? 3 4 Α Yes, it is. Would you please summarize your testimony and feel 5 0 free to use the overhead projector as necessary to 6 illustrate the points that you made in your testimony. 7 It would be easier if I could approach the podium 8 А 9 and use that microphone. MR. STUBCHAER: You can take that microphone with 10 It comes out of the stand. 11 you. 12 Α My goal here today is to try to summarize five substantive issues as presented by Mr. Volker. These are 13 that the statements in the FEIR avoid answering some of the 14 critical controversial questions, particularly on the range 15 of future operations of the Sierra lakes. 16 17 I shall try to show it is impossible to meet the projected 17,000 acre-feet net yield without drawing upon 18 19 those reservoirs in critical summer months. 20 Basically, I am in the middle of grading papers 21 right now in our dying university system, and the thing that I keep putting on all my students' papers is show your work, 22 23 show your work. And that's the same basic criticism I have here of the applicants' materials. 24 The second critical issue as pointed out by Mr. 25 Volker that I am going to cover is that of storage. To make 26 this project work as intended, storage is mandatory, but it 27 28 is not available. The proposed project is, in my opinion, either a sequential project or strawman put forward to later 29 justify an application for storage facilities when this one 30 is rejected or else it is part of sequential applications 31 that will, indeed, ultimately lead to new storage 32 facilities. 33 34 I will show that the operational history of Sly Park Reservoir shows that adequate excess capacity for the 35 36 required storage was available in only four of the historic years. The proposed system simply cannot operate without 37 38 adequate storage. I will then try to briefly get into the issue of 39 rediversion of waters used to produce peaking power for your 40 utilities, and the non-substitutability of that water used 41 and so vital for public utilities for peaking power. Even 42 if the utilities were to negotiate such water rights with 43 44 the applicants, the economic feasibility of replacing that kind of peaking power is simply not possible in California. 45

The public would have a case to go to the Public Utilities 1 2 Commission, I believe, and reject a pass-through of rate increases if the PG&E or SMUD had to go out of state for 3 4 that peaking power. The growth rate issue you have heard about and I 5 will briefly touch on that growth rate issue, and then 6 finally, I will close with the points that the California 7 Water Resources Control Board, in my opinion, needs 8 disclosure at the operational model of how the water would 9 be captured and used to assess in an honest objective 10 fashion this application. The present information base is 11 12 simply inadequate and unsuitable for a reasoned decision at the present time, basically again, simply show your work. 13 Okay, now moving forward into the first issue, that 14 of the operational reality of working with the PG&E lakes. 15 The critical issue here is the issue for flow generation 16 17 frequency. If I may, briefly, and these were distributed with 18 19 my earlier packets, the issue is not as we have heard in 20 cross-examination before the Forest Service here today, for example, can we operate within the confines of the system 21 that PG&E has operated under, but can we operate in a 22 23 fashion that provides the lakes at near full capacity throughout the summer months. 24 25 And to get at that issue, what I have done is looked at the stage duration frequency for the lakes themselves; 26 that is, how full are the lakes at what point in time at 27 28 what months and how are they drawn down? What is the real 29 historic operational history of the lakes? There's two points we need to consider in looking at 30 this operational history. One was the normal operating 31 level and what are the extreme levels to which the lake is 32 allowed to operate at atypical times, because if the 33 atypical times were to be used as the standard by which 34 future operations were to be judged, then indeed, you would 35 36 have a much larger leeway than if you were to use the typical frequency magnitude issues. 37 38 so, for example, here in late May, in the springtime, sometimes the lake is not, and we are looking 39 here at Silver Lake, sometimes the lake is not yet full. 40 So, we see that here 50 percent of full occurs more than 41 half the months of historic record and that the lake is full 42 a significant portion of the record, but that in general in 43 44 May, we see a filling-lake condition by the end of May.

So that if we look at the distribution of those 1 2 stage elevation data, the most frequent condition is one in which the lake is nearly full, but there are, indeed, 3 4 conditions in which the lake is substantially below completely full. 5 Down here we would be at the 50 percent full level, 6 not 50 percent of volume but 50 percent of stage, that thing 7 which recreational users are aware of the degree to which it 8 9 is full. The pencilled number in the upper right-hand corner, 10 by the way, are the new exhibit numbers. 11 12 MR. STUBCHAER: It would be good if you would refer them to where the written record is. 13 I'm sorry, yes, sir. The last two were RC-10 and 14 Α We are now looking at Silver Lake stage for August 15 RC- 11. at the end of the summer, end of August. RC-12, and here we 16 17 see that 50 percent is way down here at the end, full is up here and the lake is, indeed, operated within 80 percent of 18 19 full for most of the end of August. There are, indeed, times when it has been at the end of August drawn down so it 20 21 looks like about 57 percent of full, but never lower than that at the end of August. 22 23 So, the August stage duration frequency information looked like this with the most frequent --24 MR. STUBCHAER: This is our RC-13? 25 Yes, sir. With the most frequent event recorded 28 26 Α years out of the historical database, 75 percent full being 27 28 the most frequent end of August elevation data. Very quickly then, just swinging through these, 29 there is RC-14 for late September, the operational history 30 now is to begin to use that water by PG&E to produce power 31 when power is still needed in the low country, the hot 32 country, when irrigation and pumping are still going on, and 33 when hydropower is available for peaking power demands is in 34 such short supply in the State of California. This is when 35 36 that water is extremely valuable in the high reservoir 37 storage. 38 So, by the end of September, in 50 percent of the years we have drawn it down to 50 percent of the level, and 39 at the very lowest year we have drawn it down to 20 percent 40 of the level, so that in September, the frequency passes are 41 in the mid-range of elevations. That was RC-15. 42 RC-16 then is late October when essentially PG&E has 43 44 had to use that lake water to produce hydropower and draw

down the lake during that late summer, early fall period 1 2 that is critical for its power production operations. And in that case, we have drawn the lake down 3 4 sometimes by the end of October to as low as a few percent of the elevational lake capacity. Occasionally, the lake is 5 virtually full. 6 7 So, the RC-17 shows us the lake levels in late October having primarily around the bottom of the 8 9 elevational range. And finally then, in January, the lake has 10 essentially been emptied of its hydro capacity that PG&E is 11 12 going to get out of it, and we are down as RC-18 shows, Silver Lake's stage for late January and the bar graph for 13 the same frequency distribution shows that it is most 14 frequently found down around 20 percent of its elevational 15 16 range. 17 MR. VOLKER: Referring to RC-19. 18 Referring to RC-19. А 19 So, what I projected is needed here is that with a direct application to the Water Resources Control Board, we 20 should show how the operational history has been utilized in 21 the past and whether or not that is adequate to supply the 22 23 needs of -- the needs being provided or suggested to be provided within the proposed project that the applicants 24 25 asked for. To supply summer and fall demands within 26 insufficient storage downstream, the applicants would have 27 28 to release water in a fashion and at times atypical of PG&E, 29 I will show. The fish and wildlife releases agreed to in 1970 on 30 the FERC Project 184, El Dorado project, as was shown in 31 exhibit S of PG&E and El Dorado's submissions, I believe, on 32 Wednesday called for approximately 420 acre-feet per month, 33 and those releases do occur and are what we see resulting in 34 the steady decline in lake levels through the summer, but 35 36 those releases would total only 1,260 acre-feet through the summer. And, indeed, that's not enough to meet the 17,000 37 38 or 33,000 acre-feet that we are told will be needed. 39 The fish release regime was modified in '84 but 40 remains focused to permit minimum instream releases in the summer months so that maximum generating capacity can be 41 provided in late summer, September and in October when it is 42 43 most needed. 44 Now, I have also very briefly looked at the longterm record. We have, of course, the historical record 45

here, RC-20, which shows the Silver and Caples Lakes 1 2 discharge data from the USGS gages which go back only into the 1920s. 3 4 The applicant used the period 1935 to the present to assess whether or not their needs could be met by the 5 I did look at long-term records. releases. I reviewed as 6 many as I could of the long-term records. I reviewed the 7 records before 1935 and after 1935. 8 9 Here are the Silver and Caples Lakes combined releases in RC-21, and the 1924 to 1991 means, and the 1935 10 to 1991 means. They are essentially the same. 11 12 The applicants did not -- that is, the use of the 1935 to the present period was, indeed, a valid period, in 13 my opinion, by the applicants to demonstrate their 14 operational history. 15 There was one point that was brought up in earlier 16 17 testimony. RC-22 is the full long-term reconstructed flow for the American River at Fair Oaks near the Folsom Dam 18 19 site, and this reconstructed record of natural flows is what 20 would be in the river if we didn't have the upstream dams 21 and diversions. This is then supplied to me by the Department of Water Resources across the street and this 22 23 record shows that there were periods of time in the past when drought conditions were greater than those of 1977. 24 While 1977 was the year of greatest individual 25 drought, the period 1929 to 1931 was, indeed, a three-year 26 overlapping period that exceeded in drought magnitude the 27 28 record for the three-year period that overlaps 1977. 29 I don't think I need to go into those numbers, but it is those long-term periods of sequential droughts that 30 really put stress on the system both for hydropower 31 generation, for pumping groundwater, and for water supply to 32 33 domestic people. The longest period of record analysis that I looked 34 at was that in RC-23, which is a long-term stream flow 35 36 record for the American River that I just showed you in the upper portion of the graph, and superimposed upon that and 37 38 correlated with it is a smooth, long-term tree ring record for the American River basin. This is upstream of Folsom, 39 but used to reconstruct the flow record for Folsom an, 40 indeed, in this case, we can see that the drought period of 41 the twenties and thirties was among the most significant 42 drought period of the full record that we have going back 43 44 into the 1500s.

So, if we had included the entire record, which is 1 2 easy to synthesize for the upstream discharge of Caples and Silver Lakes for the Silver Fork flow record, we could have 3 4 synthesized that record from the downstream record and we would have gotten a longer period of record that could have 5 been used to advantage in this particular period. 6 7 Now, finally, the storage issue: Storage is The PG&E operational constraints require late fall limited. 8 9 and winter releases from Sierra lakes for summer consumption. This means that storage is mandatory; that is, 10 if you are going to consume it in the summer. You can't 11 12 release it in the fall if you are going to consume it the following summer unless you have some way to store it 13 through the winter and spring. 14 We are told that storage in Folsom Reservoir is out 15 of the question because of the great pumping cost to return 16 17 it to a distribution system above the reservoir level. Slab Creek Reservoir and the two-day storage in the 18 19 forebay are essentially in full demand by existing allocations. Even if all the homes in the future service 20 area had bathtubs and were filled in December to be used for 21 domestic water throughout the following summer and no one 22 23 could take a bath in the EID service area at all, we would only add 9-1/2 acre-feet of additional storage. 24 25 I tried to look everywhere to find the storage that El Dorado Irrigation District talks about. The only extant 26 feasible storage that I can find at the present time is the 27 28 excess capacity in Sly Park Reservoir. That is the Sly Park Reservoir data out of the DWR computer across the street. 29 The top line on my figure RC-24 is full, and each individual 30 year shows the amount that was ultimately filled by runoff 31 within that reservoir. The little numbers at the tops of 32 bars indicate the number of the month of the year that that 33 maximum level of fullness occurred. 34 My reasoning here in analysis of the Sly Park 35 36 storage is that whatever was the maximum amount of runoff that Sly Park could have stored in a given year and did 37 38 store in a given year, it is the excess capacity above that that would have been available to the applicants should they 39 40 have chosen to use that excess storage. So, the issue here is that if we need to store up to 41 17,000 acre-feet of water in Sly Park Reservoir, there are 42 43 relatively few years when that excess storage capacity would 44 be available.

Here is a plot, RC-25, of just that excess storage 1 2 capacity in acre-feet, and the needed capacity is the line at the top, and we see only three years exceeded that needed 3 4 capacity. Several years approach it but most years are well below the needed capacity within Sly Park Reservoir. 5 Now, the critical issue here is not does the excess 6 7 capacity exist -- here's another plot, RC-26 that shows in the cross-hatched area the actual ultimate spring capacity 8 9 that Sly Park Reservoir was filled to, and the white bar at the top shows the unfilled portion of Sly Park Reservoir. 10 The solid line two-thirds of the way up the graph is 11 12 the line that represents the amount that would be needed to hold 17,000 acre-feet of excess capacity. 13 The critical issue here is that, in fact, the use of 14 Sly Park Reservoir by the applicants might actually waste 15 water since the operational pattern of Sierra lakes requires 16 17 release in the fall and winter before spring runoff begins; but that water would have to be placed in Sly Park on the 18 19 contingency that excess capacity might be available after 20 the following spring's runoff. Our runoff forecasting system for the State of 21 California is not so good that we can tell you in September 22 23 what next spring's total runoff will be. Therefore, your only operational scheme is to store your September runoff in 24 Sly Park Reservoir and hope that the runoff is low next 25 spring. If the runoff, indeed, fills Sly Park Reservoir 26 next spring, whatever water you put in Sly Park Reservoir, 27 28 by federal rules is owned by the Bureau of Reclamation and is contributed to the Central Valley Project, and to the 29 Delta outflows, and to the Delta smelt, and while that's a 30 very noble gesture on the part of the applicant, I don't 31 think that's what they had in mind. 32 So, unless we can come up with some very remarkably 33 different method of snow pack prediction a full year in 34 advance, I don't see how you can store water on the 35 36 contingency that excess storage will be available. We are told in the testimony that the peak summer 37 38 demand in July would be about 16 percent of 26,000 acrefeet, that the incremental 115,000 new residents would be 39 40 expected to use by the year 2020. That works out to 4,168 acre-feet for the high demand month for the residential 41 customers, not the 2,000 acre-feet which was stated in 42 43 cross-examination. 44 Since existing storage in the South Fork system is reported to be about 188 acre-feet to which might be added 45

400 acre-feet. If PG&E were to allow the applicant to 1 2 compete for El Dorado forebay capacity, we can, in fact, meet only 14 percent of the needed storage within the 3 4 existing system above Folsom. The only alternatives are (1) reoperate the Sierra 5 lakes, the existing reservoirs, pump from Folsom Reservoir, 6 or build new offstream storage. Options 2 and 3 are very 7 expensive and improbable in todays' economic and regulatory 8 9 climate. Thus, reoperation of Sierra lakes is, in my opinion, the only feasible option open to the applicants. 10 We are told storage exists instream and in the 11 12 system, but, in fact, there are less than a few days storage in channel at any point in time when the demands are high 13 for domestic consumption in the summertime. 14 Competing demands upon the top foot of storage in 15 Sly Park Reservoir would increase fish release requirements 16 17 and peaking power needs, rendering that a poor substitute. Rather than speculating about storage as I have 18 19 done, the applicant needs to demonstrate how and when the 20 storage capacity is available in a straightforward 21 application. The current application and testimony given before 22 23 this Board seemed to imply that autumn releases will magically remain in channel intact until next summer's peak 24 25 demand period. In my opinion, the Board needs and deserves a more respectful application. 26 27 And finally, just the last two points, peaking 28 power: Peaking power is provided by hydro and wind in Wind power capacity is essentially limited by 29 California. our grid at the present time. We don't have an ability to 30 add more peaking power. We have wind potential, but we 31 don't have the capacity to hook it to the grid and it is 32 33 very capital intensive. Hydro is by far the most flexible source of peaking 34 power within our power grid at the present time. Substitutes 35 36 are available as far away as British Columbia and perhaps Montana, but require huge investments in infrastructure to 37 38 wheel that much power rapidly through the interstate and international grid. 39 New York state has tried to do this with notable 40 failures. 41 Ratepayers will rightfully protest any proposal to 42 pass those higher rates on to the consumer when such 43 44 capacity was available locally but sold to private utilities. 45

What we are talking about here is PG&E controls its 1 2 own future and the opportunity costs foregone would this water not be available for hydro would be something that the 3 4 public would have a major point to make about. Finally, the State Department of Finance office are 5 not, to my knowledge, demographers, and I am sure that we 6 all realize we can't simply project a straight-line growth 7 projection based upon past growth projections when build-out 8 9 and availability of resources are limited. So, in conclusion, gentlemen, I wish that we had a 10 complete application here to work with, one that would 11 12 provide us with information about how the water is to be captured, when the water is to be captured, where it is to 13 be diverted, where it is to be stored, and where it is to be 14 used. 15 Thank you. 16 17 MR. STUBCHAER: Dr. Curry, can the text you were reading from be made available to our staff as an exhibit 18 19 introduced into evidence? If you wish. 20 А 21 MR. VOLKER: He made a three-page summary, I think he referred to during his testimony. We can mark that as 22 23 RC-26. We made copies for everyone in the event that was 24 desirable. MR. STUBCHAER: All right, thank you. 25 MS. KATZ: Mr. Volker, we already have a 26. 26 MR. LAVENDA: We already have one of those. 27 28 MR. VOLKER: I am sorry, make it 27. 29 MR. STUBCHAER: What number did you give to the written testimony which was submitted by Dr. Curry? 30 Ι thought I heard that referred to as 11. 31 MR. LAVENDA: Yes, it was. 32 MR. STUBCHAER: We have an exhibit that was RC-11. 33 MR. LAVENDA: We have RC identified for Dr. Curry's 34 testimony without a number identified in the presubmitted. 35 36 MR. STUBCHAER: All right. Presubmitted is just a straight number 11 and the graph is RC-11. 37 38 MR. VOLKER: Mr. Chairman, our next witness is Dr. Peter Moyle. 39 40 PETER B. MOYLE, having been sworn, testified as follows: 41 DIRECT EXAMINATION 42 MR. VOLKER: 43 by 44 Dr. Moyle, would you state your name and address for 0 the record, spelling your last name, please. 45

I am Peter B. Moyle, M-o-y-l-e. I live at 612 1 Α 2 Eisenhower Street, Davis, California, 95616. What is your occupation, sir? 3 0 4 Α I am a Professor of Fisheries Biology at the University of California at Davis. 5 We have marked as Exhibit 8 a summary of your 6 0 testimony. Is that a true and correct statement of your 7 testimony in this proceeding? 8 9 Yes, it is. А Would you please summarize your testimony? 10 0 I will give the shortest summary presented in the Α 11 12 interest of time. My basic points are first, that the Draft EIR is 13 confusing and incomplete, so it is very hard to evaluate. 14 When I was first looking through it, I was wondering 15 if I was missing something, and fortunately, I see from the 16 17 testimony of Jerry Mensch, that, indeed, the fisheries information is very incomplete in the report. 18 19 And also, it's kind of a simple-minded approach to things. I was looking at water demands in the system and 20 the applicants say they are only going to use 17,000 acre-21 feet, but it looks to me like they will actually be taking 22 23 about 40,000 acre-feet because they ask for about 33,000 in the application, and then they have 7,500 stored in Folsom 24 which they are not using, and that's probably another 7,500 25 they might be able to take as well. 26 27 So, to me, it looks like they are going to be using at least 40,000 acre-feet in the long run, and that's 40,000 28 acre-feet that presumably would not be available for use in 29 the American River and the Delta. 30 31 That is just one of the many things that confused me as I was going through this, as well as the fact it is very 32 difficult to find the numbers in terms of fisheries impacts 33 or numbers of fish and things of this nature. 34 To me, this is basically a big project disguised as 35 36 a bunch of small projects and it seems it will potentially affect the fish populations in the mountain reservoirs where 37 fish originate in the various connecting streams and the 38 Delta and the American River. Even though they keep saying 39 the impacts are insignificant, I have a hard time buying 40 that, especially as Dr. Curry points out, it really looks 41 like the environmental changes are likely to be more severe 42 than the analysis indicates. 43 44 A second point that I would like to make is that the potential impact on the Delta really cannot be dismissed. 45

Despite the fact of what the report says, that it is such a 1 2 small number compared to the total Delta outflow, you can This is actually one of many small water hardly notice it. 3 4 projects that affect Delta inflow. I sat through the D-1630 hearings and it was made 5 clear to me that the combined effects of the big and small 6 water projects are factors that have caused the major 7 declines of our fisheries and created endangered species 8 9 like the Delta smelt and longfin smelt. During these hearings I have heard this litany of 10 requests from small irrigation districts and water districts 11 12 saying, please don't take our water from us because even if it is just a few drops, it is going to result in our 13 economic ruin. Yet, I have the feeling that most of these 14 districts really didn't realize ultimately they were going 15 to have to give up some water to help protect the Bay-Delta 16 17 system because it is clear that the system is in such bad shape. 18 19 And I think this is becoming more apparent with the 20 passage of the Central Valley Project Reform Act, the federal legislation, so at this point I just don't see it is 21 wise to do anything that will reduce Delta inflows, even by 22 23 as small amount as this 40,000 acre-feet, at least until we have done more study and figure out where all this water is 24 25 going to come from. Right now we are probably going to need more water 26 in that system rather than less. From my simple-minded 27 28 calculations, it looks to me like if 40,000 acre-feet is 29 taken away from the system, somebody else has to make it up It is not just water that magically is available 30 somewhere. 31 for use. And on the other hand, if we keep assigning 40,000 32 acre-feet here and 40,000 acre-feet there to various users, 33 we really will have a severe problem in the system because 34 we need more freshwater in the Bay-Delta system for various 35 36 environmental purposes. The third point I want to make, again very briefly, 37 is that the overall impacts of the project really cannot be 38 dismissed. Again, my studies in the last few years have 39 focused on documenting the decline of California fish and I 40 am trying to devise conservation strategies, ways to protect 41 those fish and keep them from declining further. Right now, 42 65 percent of all freshwater fish species in California are 43 44 in really severe trouble and we are losing about a specie every six years, and the causes of these declines are never 45

1 simple. It is never one major project typically that causes an individual extinction. 2 Typically it's cumulative impacts over many many 3 4 years of many different projects as species decline over their fairly large range. 5 You put a small dam here, a small diversion there, 6 siltation from poor watershed management from logging or 7 irrigation, you have streambed alteration due to urban 8 development, there are a whole series of things that all 9 contribute to the decline of aquatic habitat, and in the 10 long run, these cumulative effects do result in declines in 11 12 fisheries and further declines in the species. And I see the El Dorado project really as being part 13 of that whole process of general decline in our aquatic 14 resources, and the attempt, it seems to me, is to treat this 15 project as a whole bunch of small projects that by 16 17 themselves don't seem to have much impact, but they are typical of small projects all over the state. Together 18 19 their impact effect can be fairly large. 20 Basically, my studies indicate we need more water in 21 our streams, not less, and more water in the Delta, not 22 less. 23 So, I will conclude my testimony with that. Thank 24 you. MR. VOLKER: Thank you, Dr. Moyle. 25 The next witness is Dr. Clark. 26 GEORGE CLARK, 27 having been sworn, testified as follows: 28 29 DIRECT EXAMINATION MR. VOLKER: 30 by 31 Q Dr. Clark, will you state your name and address for the record, please, and spell your last name. 32 My name is George Clark, C-l-a-r-k. 33 My address is Α 6006 Keats Circle, Orangevale, California, 95662. 34 What is your present occupation? 35 0 36 Α My present occupation, my job title is Technical Principal with the Aerojet, Propulsion Division, Rocket 37 38 Missile Manufacturer. Would you describe briefly your qualifications with 39 Q regard to botany? 40 I have a fairly extensive background as an amateur 41 А botanist evaluating the plants of the Sacramento area and El 42 Dorado County. My interests have gotten me into a group 43 44 called Native Plant Society, and I have participated in El

Dorado County in an effort to preserve the rare plants which 1 2 I will be describing there. I am fairly familiar with the plants in the area in 3 4 question, quite familiar with them. How many years of experience do you have in 5 Ο identifying the flora in the mid-Central Valley region? 6 Over 15 years. I am not sure of the exact time. 7 Α We have marked as Exhibit 10 your testimony. 8 0 Is 9 that a true and correct statement of your testimony in this proceeding? 10 Yes, it is. 11 Α 12 0 Would you summarize your testimony, please? The principal area of concern that we have with 13 Α regard to water use in El Dorado County is with regard to an 14 area of roughly 4,000 acres extending from Shingle Springs 15 on the south to Salmon Falls on the north where the soils 16 17 are derived from a particular species of rock called gabbro. Gabbro rock soils exist as an island in this area surrounded 18 19 by other types of soils, and because they are rather difficult for plants to grow on, a suite of unusual plants 20 has developed there. This includes five that are presently 21 to be considered by the U. S. Fish and Wildlife Service for 22 23 listing as threatened species. The primary threat to these species at present is 24 25 the rapid growth occurring in this part of El Dorado County. The five species that I would particularly mention 26 are the Stebbin's morning glory, the Pine Hill ceanothus, 27 28 the Pine Hill flannel bush, which is very localized, the El Dorado bedstraw, another very localized species, and Layne's 29 butterweed. 30 There are three other additional species that are of 31 32 concern. We did respond to a request by the Fish and Wildlife 33 Service for information on these plants, and I believe these 34 have been included as exhibits in my testimony. 35 The request 36 from the Fish and Wildlife Service is Exhibit 2 and our response is Exhibit 3. 37 38 The major concern with regard to these plants is that they are in a type of habitat called chaparral. 39 Chaparral in California is almost entirely a habitat type 40 that's requires fire as a major part of its ecology. In 41 order to maintain the viability of the plants that we have 42 in question here rather large preserves are required. 43

We have considerable concern because development in 1 2 El Dorado County is basically wiping out any possibility of 3 establishing large preserves. 4 The protection provided by the California Environmental Quality Act allows a project-by-project 5 This results in the establishment of small 6 preservation. preserves which will not prove viable over the long term. 7 Thus, we feel that large preserves must be 8 9 established. We do have great concerns about allowing excess water being allowed in Western El Dorado County, thus 10 converting it basically into a city instead of a rural area 11 12 that it presently is, and establishing or wiping out the preserves before we have any chance of establishing them. 13 The County Board of Supervisors has recently given 14 their approval in principle to the establishment of four of 15 the five preserves that we feel are necessary. 16 17 However, funding for the establishment of these 18 preserves is not available presently. The Board of Super-19 visors has not addressed how this would be established and 20 we don't at present know how it would be established. We 21 are working on that, but we have not gotten real far. The availability of water is one of the things that 22 23 has kept development from proceeding in this area at a rate that some developers would prefer. 24 25 We are very concerned that if water becomes abundantly available that any possibility of preserving 26 these plants for posterity in a viable preserve will not be 27 28 available. 29 It is my understanding that there was some question with regard to the White Rock diversion structure about 30 impacts to the El Dorado manzanita previously, a plant 31 called arctostaphlos missenana. 32 33 This is not in my testimony, but from the map in the final EIR it is not apparent that this plant would be 34 impacted by this structure. It is very close to some 35 36 existing populations of the plant, but it does not appear that it would be affected. However, the map is not in very 37 38 good detail, so it is difficult to tell. 39 We also have some concerns about the effects of the 40 withdrawal on riparian vegetation in both mountain lake areas and the streams, the drainages that would be affected 41 by the diversion. 42 43 That, basically, concludes my testimony. 44 MR. VOLKER: Thank you.

Mr. Chairman, we would like to offer at this time, 1 2 although I understand cross-examination will be necessary, the following exhibits, 8, 10 to 11. 3 4 MR. LAVENDA: Would you identify these for the 5 record. MR. VOLKER: Exhibit 8 is the testimony of Peter 6 Moyle, Exhibit 10 is the testimony of George Clark, Exhibit 7 11 is the testimony of Dr. Robert Curry. 8 9 We have omitted the testimony of Mark Skinner, Exhibit 9, because he was unable to appear today. 10 His testimony was largely cumulative with Dr. Clark's. 11 12 Then, we would move the following exhibits to the testimony of Drs. Moyle, Clark and Curry as follows: 13 With regard to Dr. Moyle, Exhibits 1 through 4. That would be 14 PM-1 through 4. With regard to Dr. Clark, GC-1 through 3, 15 and finally, with regard to Dr. Curry, Exhibits 1 through 16 17 27, 27 being the summary of the testimony that was distributed today. 18 19 That concludes our presentation. Thank you, Mr. 20 Chairman. 21 MR. STUBCHAER: All right. Before we get to crossexamination, we will take a 12-minute break. We will 22 23 reconvene about 20 minutes of 11. 24 (Recess) MR. STUBCHAER: We will reconvene the hearing and we 25 will proceed with the cross-examination of the expert panel. 26 Who wishes to cross-examine the panel? All right, 27 28 Mr. Somach. MR. SOMACH: Mr. Stubchaer, I don't want to 29 personally, and I have no idea what the other parties want 30 to do, but I do not want to just for the sake of cross-31 examinating Dr. Curry, come back tomorrow. 32 I was wondering whether or not it would be possible 33 to defer my cross-examine of Dr. Curry until after lunch. 34 Ι think that should give me enough time to take a look at that 35 36 testimony. MR. STUBCHAER: That's a reasonable request. Can we 37 38 accommodate that? MR. CURRY: Yes, sir. 39 CROSS-EXAMINATION 40 MR. SOMACH: 41 by 42 0 I would like to direct some question to the other witnesses, if I could. 43 44 Dr. Moyle, you made a statement in your oral testimony, something along the line of agreeing with Dr. 45

Curry's analysis of the environmental impacts associated 1 2 with this proposed project. What were you referring to? A I was referring to his general DR. MOYLE: 3 4 statement about the effect of the project and specifically on the fact that it looked to me like these reservoirs in 5 the high mountain areas would definitely have to be drawn 6 It looked down in order to meet the demand for that water. 7 to me like they would have to anticipate PG&E changing their 8 operation somehow, plus it's just the general effects of the 9 various water projects, various aspects of it on fish and 10 fisheries. 11 12 0 But it is just this assumption that Dr. Curry apparently has made that this project will draw down those 13 high lakes was the reason for your statement; is that 14 15 correct? I don't really want to be quizzed on Dr. 16 Α Yes. 17 Curry's testimony. I suggest you ask him. I have a high respect for his --18 19 Well, I know, but you did make the statement and I 0 20 am trying to figure out what you were saying. So, it was 21 based upon the conclusion that he reached, that those lakes would be drawn down? 22 23 А Yes. I haven't much choice in that. I have a hard time understanding the EIR, what it really says about these 24 various projects. 25 Now, if I understand your concern with respect to 26 0 the Delta, it is that the Delta-related system cannot afford 27 28 any decrease in flows; is that correct? 29 Yes. А And then, there is no threshold. Any diversion, 30 Q even an acre-foot of diversion anywhere in the Delta system 31 would then be adverse; is that correct? 32 Potentially. I mean, the problem is this is not a 33 Α simple system. Obviously, you wouldn't notice one acre-foot 34 and conceivably you can say you wouldn't notice 20,000 acre-35 36 feet initially, but the problem is you have many projects like this and somewhere we have been diverting too much 37 38 water. We have to increase the amount of water going into the system. By taking more water out, certainly is not 39 40 going to do that, and it's all incremental, whether it is one acre-foot or 20,000 or 500,000. 41 So, the answer is there is no threshold. 42 0 No, I don't really think so, not at this stage when 43 А 44 we need more water in the system. And any diversion would cause harm? 45 Q

Yes, if it was taking water out of the system, even 1 Α though you would have a hard time saying that a single 2 diversion was causing the loss of 50 Delta smelt or 3 4 something, but still you do have this problem of cumulative impact of all these various diversions creating problems. 5 In your analyses, and I believe it was your words, Q 6 simple-minded calculations --7 Yes. 8 А 9 In your analysis, did you assume that the Bureau of 0 Reclamation would reduce its releases from Folsom by an 10 amount equal to whatever the diversions of the El Dorado 11 12 project would be? Yes, that was my assumption. 13 Α And if, in fact, that did not happen, that the 14 0 Bureau of Reclamation retained or released the amount of 15 water that it historically has released or had available to 16 17 it, would your answer be the same? My answer would be that if it did not change the 18 Α 19 present way we are putting water into the Delta, or did not 20 reduce the amount of water going into the Delta, then that 21 would be fine. Then that would have no incremental impact? 22 Ο 23 Α Presumably not. And if, in fact, these mountain lakes were operated 24 0 the way they have been historically and there was no 25 modification of their operations as Dr. Curry prophesized, 26 then I assume there would be no incremental impact with 27 28 respect to the El Dorado project operations? 29 Not of the lakes, but that's pretty hard for me to Α 30 buy. What, that there wouldn't be an impact to the lakes? 31 Q Based on Dr. Curry's testimony that the lakes would 32 Α not continue to be operated the way they were. 33 But if they were? 34 0 Oh, sure. You are saying things wouldn't change. 35 Α 36 Mr. Clark, can you explain your work with El Dorado Q 37 Planning Department? 38 DR. CLARK: A Yes, I would be happy to. In about 1989, the California Department of Fish and Game and the 39 Native Plant Society realized that development in the gabbro 40 soils of El Dorado County was proceeding at a very rapid 41 rate and very little account was being taken of the fact 42 that there was a large suite of rare plants in this area 43 44 becoming increasingly threatened.

As a result of these concerns, Fish and Game and the 1 2 County began communicating with regard to the possible establishment of large preserves as a way of avoiding or 3 4 mitigating for these impacts so that development could be allowed to proceed but without threatening the viability of 5 the plants. 6 In about early 1991, this came to the point that the 7 Board of Supervisors and the Planning Department realized 8 9 that they did not have a good handle on what they should be doing, so they established a committee to advise the 10 Planning Department to try to work out a way of possibly 11 12 preserving these plants. This committee met a number of times, I don't know 13 the exact number, over the course from March of 1991 through 14 late last year, and did come up with a proposed set of 15 preserves which all parties agreed would probably insure the 16 17 viability of the plants in perpetuity, we hope, if the preserves could be established. 18 19 I also have personal background from field botany 20 and things of that nature in the area. 21 But your work with El Dorado County Planning Ο Department was to assist in figuring out how to preserve 22 23 certain plant species in light of the proposed drought? 24 Yes. А And that was a formal committee of El Dorado County 25 0 that you worked with? 26 I don't know quite how you define a formal 27 Α 28 committee. It was a committee to assist the Planning 29 Department in trying to establish preserves. It did through the Planning Department, of course. I don't know if we were 30 31 a formal committee or not. And what position has the El Dorado County Board of 32 0 Supervisors taken on the preserves? 33 They have most recently agreed in principle to 34 А establishing four of the five proposed preserves. 35 Three 36 large preserves were proposed and two smaller satellite preserves. They agreed to the two satellite preserves and 37 38 the northernmost largest preserve and a preserve centered around the Pine Hills area. 39 40 The proposed preserve at the south end of the complex was not part of the Board of Supervisors' 41 recommendation. We believe that in order to maintain long-42 term genetic viability, we do need a preserve in the south 43 44 area, so this remains a matter of concern.

1 Still, the Board of Supervisors has not done 2 anything with respect to funding the establishment of these In fact, they have apparently excluded some of 3 preserves. 4 the most viable routes to establishing preserves, in particular, the use of the development of mitigation fees. 5 There is some sentiment on the Board that they 6 should not be used, although the California Environmental 7 Quality Act clearly calls out that this is an appropriate 8 9 use for means of mitigating for development. So, basically, they have gone on board as 10 0 establishing four of the five preserves that you have 11 12 suggested? Α 13 Yes. And they are currently grappling at the local level 14 0 with how to fund the preserves? 15 They and others. The California Department of Fish 16 Α 17 and Game is trying, there will be a bond issue proposed in July of '94. There's a lot of effort being undertaken right 18 19 now trying to find ways and means of establishing the 20 preserves, yes. 21 0 And the impacts of this project with respect to the issues associated with preserves then fall within that 22 23 definition of growth inducing; is that correct? I believe so, yes. I am really guite certain that 24 А 25 had adequate water been available to allow unlimited development in that area that we certainly wouldn't have the 26 possibility of establishing large preserves in the south 27 28 part of the area right now, yes. 29 So, adequate water supply is something that has 0 hindered development in the El Dorado Hills, Cameron Park 30 area, but the potential harm to these species within these 31 potential preserves is not from the actual physical act of 32 diverting the water, but rather, through the secondary 33 impacts associated with growth? 34 That is true. 35 Α 36 MR. SOMACH: Then, if I could reserve my crossexamination of Dr. Curry. 37 38 MR. STUBCHAER: Yes. 39 Ms. Faraqlia. 40 CROSS-EXAMINATION MS. FARAGLIA: 41 by I have a few questions for Dr. Moyle. Dr. Moyle, in 42 0 43 your testimony you expressed concern that reduced flow to 44 the Delta will adversely affect various species. DR. MOYLE: A Yes. 45

And if the applicants' project results in reduced 1 0 flows, would that impact the Delta smelt? 2 Yes, it quite likely would. Again, it is one of 3 Α 4 these cumulative things because there are lots of projects that are affecting it. 5 What is the current status of the formation of the 6 7 Delta smelt recovery plan? The Delta smelt, as you know, was listed as 8 Α 9 threatened species two months ago. I am head of the Delta -- actually it's called the Delta Fisheries Recovery Team, 10 which makes it very unusual in that the Fish and Wildlife 11 12 Service decided that the problems in the Delta go far beyond the Delta smelt and that to address just the Delta smelt, 13 you would be getting the same kind of problems we have run 14 into with the winter run salmon, you kind of have water for 15 one fish and take it away from something else. Our charge 16 17 is to actually develop a Delta fisheries recovery plan and it is very clear from all this that sufficient water flows 18 19 are a major part of the recovery effort and will have to be. 20 Thank you. Just one more question. Are you aware 0 21 of any studies on Delta smelt losses to silverside 22 predation? 23 А They haven't been done yet. We have the proposed. Do you have any idea what the likely impact of the 24 0 introduced fish, the silversides will be on the survival of 25 the Delta smelt? 26 Again, all we have is guesses. We have a suspicion 27 Α 28 that when Delta smelt are spawning, the silversides may be a predator, a significant predator on the larvae, but we also 29 have a suspicion that happens only when inflow is low, 30 essentially during drought type of conditions, and the smelt 31 are concentrated in a few areas, so it make it all the more 32 crucial to have adequate flows during dry and critical 33 34 years. MS. FARAGLIA: Okay, thank you very much. 35 36 MR. STUBCHAER: Mr. Creger. 37 _ _ 38 CROSS-EXAMINATION 39 by MR. CREGER: I have one question of Dr. Curry. Could you 40 0 describe the advantages, or disadvantages, or the concerns 41 you evidence over the -- I don't have the reference here in 42 front of me, but in Appendix A of the EIR, where the 43 44 applicant used inflow and outflow to Folsom and developed averages based on that -- what are the advantages or 45

disadvantages of using that technique and what are the 1 problems that might be resulting from that technique? 2 DR. CURRY: A I am sorry, I don't fully understand 3 4 the question. Tell me specifically what action the applicant did that you wish me to criticize. 5 They are basing the amount of water that they Α 6 contend is available on the information contained in those 7 charts, and so, therefore, as a lay person, a member of the 8 general public, I don't grasp how those particular charts 9 justify the amount that they can take out. 10 If I had an EIR here, I could be more specific --11 Appendix A, final EIR. 12 I have a copy here. 13 Α This type of presentation -- what my concern --14 Q MR. STUBCHAER: Please tell us what page and chart 15 you are looking at. 16 17 MR. CREGER: I'm sorry, I am looking Appendix A of the final EIR. The pages are unnumbered, but it is after 18 19 page 16, Figures 2, 3 and 4, for Caples Lake, Silver Lake and Lake Aloha respectively. Averages are addressed and to 20 me averages are a smoothing function, and if you are trying 21 to determine the historical operation as a function, I have 22 23 trouble with averages being used to support that kind of 24 analysis. And after listening to your testimony, I saw more 25 specific approaches to answering the same type of question 26 that didn't seem to involve averages. 27 28 The point I was trying to make was that it's the Α 29 range, not the averages, that's important, that it's the frequency, duration, magnitude that's important, not the 30 31 averages. Averages may gloss over and not present to the reader the real range of possible drawdowns that could 32 occur, or the period of time that the lake is maintained in 33 high condition. 34 This particular presentation the applicants have 35 36 done using the 60 percent average runoff figure is a conventional approach. That is, you classify your year into 37 38 drought years or non-drought years, and that's one kind of a classification, but the envelopes that are described by the 39 40 curves in Figures 2, 3 and 4 of that referred to appendix to not show me the range of variability that we would expect to 41 find. 42 My biggest problem here is I don't know from the EIR 43 44 whether the applicants intend to operate within the range

that PG&E has historically operated or at the frequency

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duration magnitude that PG&E has historically operated. 1 Ι 2 can't establish that point and they are very different. MR. CREGER: Thank you. 3 4 MR. STUBCHAER: All right. No one else raised their Anyone else wish to cross-examine besides staff? 5 hand. All right, Mr. Lavenda. 6 7 EXAMINATION MR. LAVENDA: 8 by 9 This is concerning Dr. Curry's testimony on the А record at the various reservoirs. Do you have any records 10 available or information available for Lake Aloha? 11 12 DR. CURRY: A There are tree-ring data available for Lake Aloha, but I do not have lake level records. 13 Ι could not find those in the State archives, so I was unable 14 to do the analysis for Lake Aloha that I was able to do for 15 Caples and Silver. 16 17 for the record, the data set that you used for your 0 presentation charts is from where? 18 19 It is from four sources -- or five sources. Α The primary source is the State of California CDEC, California 20 21 Data Exchange System Computer on the sixth floor right across the street that I access remotely. 22 23 The other source of data, the source of data on outflow of Caples Lake, Silver Lake and the historic flow 24 records for Folsom are from the USGS standard published data 25 sets. 26 27 The tree-ring record is from Dr. Harold Fritz at the 28 Tree-ring Lab in Arizona done under contract for the State of California to look at California's long-term water 29 problems, and that record was accessed from the Boulder, 30 Colorado, National Climatic Data Summary Archives with Dr. 31 Fritz' quidance. 32 He American River tree-ring record was accessed 33 through the researcher who did the work under contract under 34 Dr. Fritz' supervision and who is now a faculty member at 35 36 the University of Washington School of Forestry, and he was able to get me that tree-ring record directly for the 37 38 American River specifically by computer mail. 39 And lastly, the State Department of Water Resources provides me the raw data to compare with his analysis for 40 the reconstructed long-term flows for 1872 through 1906 for 41 the American River at Fair Oaks. 42 Is this type of analysis commonly accepted as 43 0 44 rigorous indication for correlation between present measured records and extrapolations to the past? You mentioned in 45

your testimony that such a correlation, had we had the 1 2 records, such a correlation may be indicative of the 1930s drought. 3 4 There were other areas on the tree-ring record that indicated similar periods of extended drought. What I'm 5 getting at, is this what is normally used? 6 This is regularly used. The contracts were let by 7 А our State climatologist here who works for the Department of 8 Water Resources, Maurice Roos, and Maurie Roos is in charge 9 of all of these climatological date for the State of 10 California to figure out these exact kinds of questions. 11 12 This is very conventional work for the States of Colorado, New Mexico, Utah, Arizona, Idaho and Texas, but it 13 is not in as wide a use in California. California has tried 14 to do this using a very wide variety of records, including 15 California mission yield records; that is, how much grain 16 17 was given to the Indians and how much grain was taken from them, and California got in trouble with that kind of fuzzy 18 19 analysis in the 1930s, and so they have been a little more cautious than other states, but it is the standard used by 20 21 the USGS for reconstructing long-term records and has been accepted in the federal courts as such. 22 23 Q Based on the information that you had in your exhibit RC-23, and I believe in RC-22, which was the 24 American River gage at Fair Oaks, is there anything there to 25 lead you to believe that flows in the reach of the South 26 Fork American River above Folsom, the current Folsom Dam 27 28 site, South Fork American River, might have been less than a 29 measurable amount or at or near zero? Oh, yes, sir. I actually have the full raw record 30 Α here and you can see that there are many months of zero 31 We reconstructed for Fair Oaks, now that does not 32 flow. mean zero flow upstream. You would have to do the cross-33 correlation to do that, but it means extremely low flows 34 35 upstream. 36 Q I'm speaking strictly of the South Fork American 37 River. 38 Correct. I did not do that cross-correlation Α I only have the long-term record downstream, but 39 analysis. based upon that long-term record, there are many many months 40 of zero flow downstream and you have got to have flow coming 41 42 from somewhere to get to it. Mr. Creger inquired about the use of the Folsom 43 0 44 Reservoir records at I believe 60 percent or thereabouts as an indicator of events occurring in the watershed to be used 45

by the applicant as an indication of how they would operate 1 2 within the envelope of the records for the 58 years available in Appendix A. 3 4 In your opinion, how would something like an Auburn Dam or some other large structure in the watershed someplace 5 influence the premise to this operating scenario that is 6 presented? 7 That's a very tough question. In fact, the flow 8 А 9 records that I presume the applicant used were the reconstructed flow records, not the actual flow records, but 10 I don't know that for a fact because I can't establish it 11 12 from the EIR, but conventional practice among hydrologists is to use the reconstructed flow records to which the dams 13 and diversions are readied to determine what the flow would 14 in its natural or virgin state had those dams not been in 15 place. 16 17 But for each dam put in place, you then increase the evapotranspiration, you increase the losses into the 18 19 groundwater through the dam structure itself, and in fact, the net downstream yield below dam is, in fact, decreased in 20 some cases over that which would have occurred had the dam 21 not been there, even if you reconstructed the flows, so in 22 23 point of fact, when we reconstruct flows we always do so with an assumption that there may be at least five percent 24 error generated in each large dam. 25 Your conception of frequency magnitude and duration 26 0 of altered flows as opposed to the envelope of maximum 27 28 versus minimum and some average or medium flow, say, for a 29 month seems to be, in your opinion, the preferred method of operation. 30 Do you consider a monthly variability adequate to 31 determine impacts in these reservoirs as they might 32 influence recreation? 33 It should be at least daily. I only looked at No. 34 Α monthly because I didn't have time to do all this work and 35 36 didn't have all the data, but what you would want to look at is the 20-year return period, 7 consecutive day low August 37 lake level. That's going to be the limiting issue. 38 You want to maintain your 20-year return period 7-day low August 39 40 lake level. That's the frequency magnitude duration issue. You can look at a three-day duration, you can look 41 at a seven-day duration, and you can look at a one-day 42 duration. And this is the conventional way we do this in 43 44 water resources.

Let's assume that there's inflow occurring at the 1 0 reservoir and you are specifying a particular time period as 2 the benchmark, there's flow occurring in the reservoir and 3 4 there's withdrawals from the reservoir, and I know PG&E has records of operations -- this is somewhat hypothetical, but 5 I want your opinion on this. 6 Would it be possible for the operator of the 7 reservoir to withdraw in such a manner during a period of a 8 month, or some other time frame, and then cease withdrawal 9 capturing inflow and thus affect a particular point that is 10 used as the operating frame? 11 12 Α It would be feasibly possible, but Fish and Game's requirement is that a continuous daily flow be maintained at 13 each reservoir, two cfs below Silver and five cfs below 14 Those releases simply have to be made as the 15 Caples. requirement of operating those reservoirs on public land, on 16 17 public waterways. It is your contention then that there were other 18 0 19 checks and balances in the system that would preclude that type of operation as it exists now? 20 21 А As it exists now, but we could envision something where we had very good flow prediction and we could say, all 22 23 right, we are going to release in July and we are going to 24 make up for it in August. I was thinking more like during the month of July, 25 0 the second week. There is a demand, there is a tremendous 26 drawdown, and then for the remainder of the period we would 27 28 hold from extractions and let the inflow build up such that 29 the 20th of July or the end of July record does fall within some expected mean. 30 Right, and that's, in fat, the way Switzerland 31 Α operates with respect to France. Switzerland operates 32 reservoirs in France and they sneak tunnels in through the 33 Alps, and they take the water out of the French lakes and 34 the French say, okay, on such a date you have to have so 35 36 much water in our reservoir, and whatever you do up until 37 that date is up to you. 38 So, they play that little game in a very heavy statistically probable computer operation model. 39 40 MR. LAVENDA: Thank you very much. EXAMINATION 41 42 by MR. FALKENSTEIN: I have a question for Dr. Clark. 43 0 44 Will the White Rock conveyance facility impact threatened or endangered plants? 45

DR. CLARK: A I mentioned that briefly in my 1 testimony. It is not real easy for me to understand all of 2 the White Rock facility from the description in the text. 3 4 However, the one plant that was of specific concern, in my understanding, was the Arctostaphlos missenana, El Dorado 5 manzanita, and one of the major populations of that is 6 immediately above Slab Creek Reservoir, and there's a 7 population very near the town of Placerville in Spanish 8 Ravine, which is fairly close to where the tunnel or the 9 White Rock diversion structure it looks like will be going. 10 But my knowledge of that particular plant is that 11 12 none of the populations would seem to be affected as I read The terrain there is fairly rugged and I'm not the map. 13 sure that adequate botanizing has been done to make sure 14 that there aren't possibly other occurrences there, but I 15 don't believe, based on my knowledge, looking at that figure 16 17 or those figures, I don't believe that any of the plants that are present in the gabbro soils that I spoke of earlier 18 19 would be impacted. 20 Lane's butterweed does extent quite a bit beyond the 21 immediate gabbro soils in the area of the serpentine. don't know if serpentine is present in the White Rock area. 22 23 I can't answer that. 24 MR. FALKENSTEIN: Okay, thank you. MR. STUBCHAER: Any more questions by staff? 25 Dr. Curry, I have one question on your RC-23 that 26 has to do with the reconstructed tree rings. 27 I think you 28 mentioned this during your testimony, but I didn't note it. 29 What is the average period for this smoother curve at the lower part of that draft? 30 31 DR. CURRY: A I believe it's a ten-year running average. It's actually in the materials which I submitted 32 to you in my first submission, and I could get hat for you 33 here directly. 34 35 It's an eight year --36 MR. STUBCHAER: Referring to RC-8? 37 Α It's in RC-8. 38 MR. STUBCHAER: Which isn't too far off from the historic seven-year drought that is spoken of in --39 40 That is right. Α MR. STUBCHAER: That does make it appear that the 41 drought of 1930 was the driest in several hundred years? 42 43 А Correct. 44 Have you attempted to assign a frequency or return 0 45 period to that?

I have not, no, sir. 1 Α MR. STUBCHAER: Okay, thank you. 2 3 Mr. Volker, do you have any redirect? 4 MR. VOLKER: No, Mr. Chairman. We would renew our request that the Board accept in 5 evidence the exhibits I enumerated previously. 6 7 MR. STUBCHAER: We will rule on that after the completion of the cross-examination after lunch. 8 9 Mr. Somach, did you wish any of the other panel members to be here after lunch, or just Dr. Curry? 10 MR. SOMACH: No. 11 12 MR. STUBCHAER: Thank you very much. Mr. Gallery, Amador County. How much time do you 13 estimate that your direct testimony will take? 14 MR. GALLERY: Mr. Stubchaer, I would think we could 15 probably have it all done in 20 minutes or so. 16 17 MR. STUBCHAER: All right. MR. GALLERY: I would like to just briefly state 18 19 Amador's position and concerns in this hearing before 20 proceeding. 21 Amador comes to the hearing, of course, with a vital interest in the recreational resources at Silver Lake and 22 23 the importance of those to the economy of the County. The lake has been there for much longer than 100 24 25 years and there's an enormous amount of recreation that takes place there every year, and it's probably true in 26 concept that Amador County feel that it could live with what 27 28 is called loosely the historical operation of the lake, and in concept, that sounds okay, but the reality of it is that 29 it seems to Amador to be that we just can't look to the 30 What happened in the past is not an indicator of the 31 past. 32 future. We heard that the PG&E itself has some flexibility 33 in the operation of the lake. We have heard that PG&E has 34 indicated that any kind of agreement that El Dorado might 35 36 make with PG&E is going to require FERC approval. We know that the project is coming up for 37 38 relicensing in 2002 and we are just four or five years away from starting the process of relicensing. 39 40 We think there's a realistic possibility that El Dorado will have a strong incentive to perhaps take over the 41 project, either by some kind of outright purchase or 42 43 possibly stepping in the relicensing stage and seeking the 44 project itself.

1 We know that there has to be an agreement between El 2 Dorado and PG&E. We don't even know if PG&E will make that 3 agreement at this point, and we certainly don't know what 4 the terms of this agreement will be.

We know that El Dorado must make an agreement with 5 SMUD and we know that El Dorado must make an agreement with 6 the Bureau of Reclamation for reoperation of Folsom and Sly 7 Park, and all of these agreements appear to us to be linked 8 together, and so, what the final product or the final 9 project is going to be when all these agreement s are in 10 place seems to us to be a real unknown, and that's why we 11 felt at the beginning and still feel that this hearing 12 shouldn't be concluded until those agreements are concluded 13 and are brought back before this Board, and we see what we 14 have as the project at that point. 15

We are also concerned with the fact that El Dorado 16 17 County does not have a general plan in place yet. If it is going to be adopted in the future, we are concerned about 18 19 the fact that the White Rock project, which is a vital part of this whole scheme, the EIR still has to be done on that. 20 21 The financing has to be obtained. It perhaps has to be voted upon, and so the White Rock project, which is assumed 22 23 here, is still an unknown.

And then, the final part is that the project has 24 historically been operated for two purposes; for 25 recreational levels at Silver Lake and Caples Lake, and for 26 hydropower production, and what El Dorado wants to do is to 27 28 come in and graft that third purpose on that, and that 29 purpose will be for consumptive use for the El Dorado County 115,000 people that will be served, and we see that as 30 really altering how the project is going to be operated 31 because El Dorado will have the checkbook. 32

One acre-foot of water will serve roughly two and a half homes and those two and a half homes can easily afford to pay PG&E what that power would be worth for power production.

So, you have got three things now driving the project or the operation of the lakes. You have got consumptive use on top of power and on top of recreation. And to us the need of El Dorado County and those people could easily take precedence and certainly when factored into the overall picture present a definite possibility of things changing in the future.

So, talking about historical operation with all of 1 2 these things yet to come that are ahead of us and have to be done, is an unreliable kind of approach or concept. 3 4 Now then, we had listed five witnesses and Mr. Alverson was one of our witnesses and he will not be here 5 and will not be testifying. 6 So, we have today Stephanie D'Agostini, who is 7 Chairman of the County Board of Supervisors; and to her 8 9 right is Mr. Rod Schuler, who is the Director of the Department Public Works; and to his right Gary Clark, who is 10 the head of Planning and Building and Health for the County. 11 12 And then, to my immediate right is Mr. John Hahn, who is the County Counsel for the County of Amador. 13 We are glad were are able to get on today because 14 tomorrow is the board meeting and there would be no way we 15 could be here tomorrow. 16 17 I have a series of exhibits, and with the Board's permission, I could go ahead and we could run through the 18 19 testimony of the witnesses, and then I cold come back and 20 number and get the exhibits identified unless the Chair 21 would rather --22 MR. STUBCHAER: You just need to get each witness to 23 authenticate their testimony. I will go ahead, and Exhibit 8 is the 24 MR. GALLERY: qualifications of Mr. Schuler, and we will take him first, 25 and Exhibit 9 is the testimony of Mr. Schuler. 26 27 ROD SCHULER, 28 having been sworn, testified as follows: 29 DIRECT EXAMINATION MR. GALLERY: 30 by 31 Q Mr. Schuler, could you spell your last name for the 32 record. My name is Rod Schuler, S-c-h-u-l-e-r. 33 Α And your professional qualifications and background 34 0 and education are as set forth in Amador Exhibit 8? 35 36 Α Yes. And Amador Exhibit 9 is a copy of the testimony that 37 0 38 you are presenting in this proceeding? Yes, it is. 39 Α And you have been sworn; correct? 40 Q Yes, I have. 41 Α 42 0 Would you give us a summary of your testimony. I am going to read a few of the highlights out of 43 Α 44 the testimony to shorten up the time.

There are three things Amador County is concerned 1 Number one, Amador County is concerned that the El 2 about: Dorado project will affect the levels of Silver Lake. 3 4 Although the EIR for the El Dorado project states that the project will not alter the way in which PG&E 5 operates Silver Lake and assumes that PG&E's current mode of 6 operation will not change, Amador's position is that these 7 statements contain no commitment. 8 9 To say that El Dorado will only be taking water released by PG&E for hydro production may be well meaning, 10 but actually, that will not be happening when El Dorado 11 12 diverts water above PG&E's power plants. To say that water will be released according to 13 PG&E's power operation schedules is not necessarily true. 14 It will be released only under any permit issued to El 15 Dorado and only according to El Dorado's needs for the 16 17 water, not PG&E's. 18 The El Dorado project represents a threat to the 19 recreational uses at Silver Lake unless some effective means 20 are imposed by the Board in conditioning the permits to 21 assure that that does not happen. Amador is even more concerned with the absence of 22 23 any agreement between El Dorado and PG&E. At this time, there is no evidence of the contractual arrangements that 24 will be made between those parties for the El Dorado 25 consumptive use of water released from Silver Lake. No such 26 agreement has been executed and apparently is now not even 27 28 being negotiated. 29 Amador's position is that this hearing should not be proceeding until such an executed agreement is provided and 30 all parties and protestants have the opportunity to review 31 and comment thereon. 32 Concern number two, Amador's water filings on Silver 33 Lake should take precedence over El Dorado's plans, to 34 assure protection and preservation of the high lake levels 35 36 during the recreational season, and to supply any additional water needs Amador County may have as the county of origin. 37 The County of Amador filed with this Board 38 Application 30218 to appropriate 8,740 feet of water at 39 40 Silver Lake for recreation, fisheries, wildlife and fish protection, together with a petition for the assignment of a 41 portion of State Filing 5645 for the appropriation of that 42 43 same quantity of water for the same purposes. 44 El Dorado's application on Silver Lake and the requested partial assignment of State Filing of 5645, and 45

any permit issued thereon, should both be subordinate to 1 2 Amador's application and to Amador's petition for partial assignment of State Filing 5645, in addition to containing 3 4 conditions assuring that the lake levels will not be lowered or affected during the recreational season. 5 None of the filings made by the State of California 6 7 pursuant to Section 10500 of the Water Code were made on Silver Lake. 8 9 In 1957, the California Water Plan, Bulletin 3, contemplates a reservoir on Alder Creek and diversions from 10 Silver Fork American downstream from Caples and Silver Lakes 11 12 into said reservoir to provide additional water to El Dorado's service area. It does not propose any utilization 13 of storage in Silver Lake to provide such water. 14 The California Water Plan expressly sets forth the 15 value of recreational resources at the upper watershed lakes 16 17 such as Silver Lake, and specifically, state as one of the planned objectives that development of the water for 18 19 recreational resources to the highest practical degree and 20 thus mandates non-interference with or utilization of Silver 21 Lake. Any interruption or interference with such recrea-22 23 tional uses deprives of the County of water needed for its development and is thus prohibited by Section 10505 of the 24 25 Water Code. Item three, future consumptive water requirements at 26 Silver Lake should also be a priority over any El Dorado 27 28 entitlement. Within the lake-shore area of Silver Lake, water uses are relatively low. 29 This is mainly due to the seasonal use of the area. Much of the surrounding area is 30 Forest Service land which limits the use of the land for 31 32 other purposes. Based on the study done by the U. S. Forest Service 33 and information provided by the local residents and resort 34 owners in the area, I have made an estimate of the water 35 36 needs for the Silver Lake basin to be something less than 37 200 acre-feet per year. 38 That concludes my summary, Mr. Chairman. MR. GALLERY: Next we will take Mr. Clark. 39 GARY CLARK, 40 having been sworn, testified as follows: 41 42 DIRECT EXAMINATION 43 MR. GALLERY: by

Mr. Clark, Amador Exhibit No. 1 is a true statement 1 0 2 of your educational and professional background qualifications? 3 4 Α Yes, it is. And Exhibit No. 11 is your testimony? 5 0 6 Α Yes, it is. 7 Would you, first, tell us your background with Q Amador County and the connection that you had with the 8 9 County. I have been the Planning Director for over 13 years 10 А in Amador County and almost from the beginning when I took 11 12 the position, I have been working with the Forest Service in a tri-agreement with the El Dorado and Alpine Counties 13 working to study the Highway 88 corridor, the lakes on it, 14 the recreational needs and the future recreational needs on 15 that part of the El Dorado National Forest. 16 17 The impetus was a land-use management plan for the Forest Service and then later a future recreational use 18 19 determination, a study that was under way, and Ms. Gordon from the Forest Service has already reiterated all the main 20 points of it, along with some of the same testimony I had 21 about the number of private and public recreational 22 23 facilities on the lake and so forth. The Amador County general plan deals mostly with the 24 private land, the significant amounts of private land around 25 Silver Lake, but it also was to be an integrated plan with 26 the Forest Service's plans for the area. 27 There are over 80,000 camper visiting days in the 28 Highway 88 corridor. 29 This isn't even anywhere near the calculation of how many days there are tourists who drive 30 by, and anybody that's driven up Highway 88, Silver Lake is 31 the gem of Amador County as far as the visual impact it has. 32 33 The number of people that recreate there, both on a permanent basis, or the cabin owners, and those that just 34 visit are an extremely important part of our economy. 35 36 It's well documented in our literature and the stuff that we provide the Forest Service that a significant impact 37 38 on that would be what we would call the bathtub look of drawing down the lake earlier than what it has been drawn 39 40 down in the past and then sometimes in the past -- we didn't realize until recently how the PG&E drawdown is not 41 42 regulated, that it was basically up to PG&E, so when we found out about this, that there would be another variable 43 44 stuck in there, we became very concerned about the impact on the recreational part of our economy. 45

And so, that's basically a summarization of my 1 2 testimony. Were you also involved with the FERC requirements 3 0 4 about recreational facilities at one of the sites up there? Yes. In the last go-around with the FERC 5 Α relicensing and subsequent to that, the Sandy Cove and other 6 recreational facilities, I think Wood Lake recreational day-7 use recreational area, we worked with the PG&E, I might add, 8 in the relicensing to make improvements at the two lakes for 9 recreational purposes, and Amador County supplied some of 10 the data for that. 11 12 And that completes your summary? 0 13 Yes. Α JOHN HAHN, 14 having been sworn, testified as follows: 15 DIRECT EXAMINATION 16 17 by MR. GALLERY: Mr. Hahn, have you prepared a summary of your 18 0 19 testimony in writing? 20 I prepared a summary of some notes, yes, Mr. Α 21 Gallery. MR. GALLERY: We have four additional exhibits, one 22 23 of which was Mr. Hahn's summary. Perhaps we ought to take a minute and distribute four additional exhibits, including 24 Mr. Hahn's summary, at this point. 25 MR. STUBCHAER: Do the three exhibits represent new 26 evidence? 27 28 MR. GALLERY: They are additional exhibits which 29 were not part of our packet. MR. STUBCHAER: Why don't you proceed with your 30 testimony and give the other people a chance to look at the 31 32 exhibits. The first exhibit is going to be the outline for 33 your oral testimony? 34 35 А Yes. 36 MR. STUBCHAER: Then, we will hear about the other 37 three exhibits after. 38 MR. GALLERY: Q Then, Mr. Hahn, you may go ahead with the summary of your testimony. 39 Mr. Chairman, my name is John Hahn, H-a-h-n. 40 Α My address is Courthouse, 108 Court Street, Jackson, 41 California, 95642. 42 I am now and have been for 19 years the County 43 44 Counsel of Amador County. I have participated in many of the areas of Amador County relating to its environment, its 45

1 recreational aspects, and all parts of the governmental 2 activities. I have a personal interest in Silver Lake. 3 Μv 4 wife's family has had a cabin at South Silver Lake for 52 I have been going up there ever since I came to 5 years. Amador County in 1974, and I have walked a lot of it, swam a 6 lot of it, boated a lot of it, fished without any success at 7 all over a long period. 8 9 I can certainly testify to you that Silver Lake is one of the real recreational stars in California, and it is 10 based on the lake levels being as high as they have been 11 12 during the summer recreational season. This particular project, the applications of EID and 13 the El Dorado County Water Agency, is particularly galling 14 to Amador County and to me, because all of the benefits that 15 are derived from Amador County's water will be in El Dorado 16 17 County. I heard Mr. Reeb, I believe, testify on the first 18 19 day of the hearing that all of the people in El Dorado 20 County and El Dorado Irrigation District service area were in favor of this project. 21 Well, they should be, because the environmental 22 23 costs to it are going to be in Amador County, and I think it is particularly insensitive of El Dorado County to call this 24 water for Silver Lake to be the water from the county of 25 origin when, in fact, it is Amador County's water, and 26 that's what the water rights for recreation purposes that 27 28 Mr. Schuler testified to is based on. Amador County is the county of origin for Silver 29 We filed a lawsuit against El Dorado Irrigation 30 Lake water. District and El Dorado County Water Agency on the 31 Environmental Impact Report, and one of the principal 32 thrusts that we make in that challenge is the fact that the 33 project before you, the applications for water rights based 34 on the assumption of growth that is contained in a general 35 36 plan which is not yet been reviewed pursuant to CEQA as far as we know, and has not been finally decided by the alter 37 ego of the Board of Directors of El Dorado County Water 38 Agency, which is El Dorado's Board of Supervisors. 39 40 In other words, at this time the two El Dorado entities are approaching the State Water Resources Control 41 Board for water from Amador County for growth in El Dorado 42 County, which growth in El Dorado County hasn't even been 43 44 approved by El Dorado County's Board of Supervisors, and we think that's appalling. 45

If there is a need for water affecting Amador County 1 2 or any other part of Central and Northern California from growth in El Dorado County coming from this general plan, 3 4 that we should know the environmental impact, the cumulative impact, as one of the previous speakers testified to a few 5 minutes ago, prior to the time that these applications are 6 heard, and certainly, decided upon. 7 One of the things that a general plan can do is to 8 Q 9 restrict growth, and in this case, the general plan when it is finalized by the El Dorado County Board of Supervisors 10 may, in fact, restrict growth from what it would have been 11 12 under the old general plan, the general plan that now exists. 13 If that is the case, then there may not be any need 14 But it is asserted throughout the EIR and 15 for new water. asserted throughout these hearings that there is an enormous 16 17 need for water to fuel this growth on the Bobbie Courts, Linda Lane and whatever they are going to be called in El 18 19 Dorado Hills, and as a result of that, this water from 20 Amador County is needed to satisfy those needs, the swimming 21 pools, the front lawns, whatever. But that growth isn't a given yet. It is guided by 22 23 and restricted by the 2010 general plan which is still in draft form and hasn't been approved, nor has it been 24 reviewed pursuant to CEQA. 25 One of the causes of action in our lawsuit against 26 El Dorado is that that is a splitting of the project which 27 28 violates every concept of what an environmental review is 29 supposed to be about. The other aspect of the EIR, of course, while we are 30 31 all here, is the potential impact, as CEQA states, the potential impact on Silver Lake. 32 I have gone through Project 184 of PG&E's license. 33 I have gone through the EIR that El Dorado has produced, and 34 I don't see what the operating criteria are that PG&E 35 36 operates Silver Lake with or by. It simply isn't there. MR. SOMACH: Mr. Stubchaer, if I could pose an 37 38 objection at this time, it was my understanding that there was to be no legal agreement at this hearing, that that was 39 subject to written closing statement if the parties wished 40 to do so, and all I have heard now for the last X minutes, I 41 suspect by reading this testimony that what we will get from 42 County Counsel of Amador County is additional legal 43 44 argument, which he can make but he should make in writing as opposed to testifying to it as some kind of evidence here. 45

MR. GALLERY: Well, Mr. Stubchaer, of course, he is 1 2 certainly entitled to comment on the adequacy or inadequacy of the information in the EIR, which is supposedly defining 3 4 the project, and the point he is speaking to is that the EIR is assuming an operational criteria and he didn't find that 5 in the EIR. 6 MR. STUBCHAER: I think there is some merit to the 7 There have been some legal arguments made, but objection. 8 9 all of your testimony has been legal argument, and the status of your lawsuit is not of concern in this part of the 10 hearing. 11 12 But if information is missing from the EIR, you can state that but without the legalities. 13 The one point that I want to make, Mr. Chairman, is 14 А that PG&E's historic operation, we think, is not defined. 15 We wanted to see the future of Silver Lake defined with lake 16 17 levels, and in my written testimony that was presented on May 18, there is an exhibit and that exhibit was at that 18 19 time something which our Board of Supervisors had approved 20 as representing an appropriate level for Silver Lake with 21 the operation of PG&E in conjunction with El Dorado. I would like to have that withdrawn because it is 22 23 going to be in conflict with a subsequent exhibit, I think it is Exhibit No. 20, which will be introduced by Mr. 24 Gallery later. 25 The reason for that is that the Board of Supervisors 26 changed its position after it heard testimony from people 27 28 who are represented in some part by the Sierra Club Legal 29 Defense Fund, by Mr. Creger and others, that this averaging based on runoff at Folsom Dam was inappropriate to decide on 30 how Silver Lake should be operated, and that, in fact, there 31 was no connection between the levels at Silver Lake and 32 precipitation measured in runoff at Folsom, which is what 33 the EIR is based on, and so I ask that that exhibit, or that 34 portion of my testimony be withdrawn for it certainly 35 36 doesn't represent the current position either of me or of 37 the Board of Supervisors which I represent. 38 MS. KATZ: Is that Exhibit 12? It is attachment A of Exhibit 12. 39 Α Yes. All of that came from confusion over what PG&E's 40 historic operations at Silver Lake means. We just don't 41 42 know. We just don't know. As Mr. Gallery mentioned in his opening remarks 43 44 here, there are a series of contracts that have to be entered into prior to the time --45

MR. SOMACH: Objection again. This testimony is 1 2 just legal argument. Again, I heard Mr. Gallery say it, I expect to see it in writing, and I just don't understand why 3 4 they are entitled to give testimony on it here. If we are, I will call Mr. Bartkiewicz as a witness and we will spend 5 some time talking about the testimony on these issues --6 7 MR. GALLERY: Well, Mr. Stubchaer, Mr. Hahn is going to address what the project consists of. We know with some 8 9 certainty what the project consists of from the EIR. 10 His comments, I take it, are to the effect that he, too, has specific difficulty understanding what the future 11 12 project is going to be because of the absence of these agreements and these certainties. 13 MR. STUBCHAER: I don't know if this last one about 14 the contracts is a statement of fact or a legal argument. 15 Why don't you make a statement of fact, as much as you can. 16 17 I don't see how El Dorado could take water from А 18 Silver Lake without having some arrangement with PG&E and 19 SMUD. 20 MR. SOMACH: Objection. He is testifying in some 21 kind of expert capacity here. If he is not a lawyer, then I would like to see some qualifications with respect to 22 23 whatever it is he is testifying from. MR. STUBCHAER: You are getting into a legal 24 argument up here again. If you have assumptions you want to 25 state that lead to conclusions, that isn't legal argument. 26 Legal argument is not permitted at this stage. 27 28 MR. GALLERY: Just because a lawyer starts talking 29 about a need for a contract doesn't mean it is legal I think a lay person can make a statement that 30 argument. 31 these contracts are necessary. MR. SOMACH: Now Mr. Gallery is testifying as to his 32 legal conclusions. 33 34 MR. STUBCHAER: You can say assuming contracts are needed or something like that and proceed. 35 36 Α Assuming contracts are needed, Mr. Chairman, it may very well change the way in which PG&E operates Silver Lake. 37 There may be in a contract that doesn't now exist, which 38 may, in fact, be necessary, there may be financial 39 40 incentives for PG&E to operate Silver Lake in a different way from the way it has operated in the past. 41 Silver Lake has been operated to provide revenue 42 43 through power generation at El Dorado powerhouse primarily 44 under Project 184.

If the powerhouse is no longer used or is not used 1 2 for a period of time because of the El Dorado project, it strikes us that there is no longer any power generation 3 4 criteria that will govern PG&E's operation of Silver Lake, and a financial incentive may change because of earlier 5 releases and with serious effects on Silver Lake. 6 MR. STUBCHAER: This appears to be argument. 7 This phase of the hearing is to present evidence. 8 9 MS. KATZ: Does Amador County have suggested criteria? 10 Yes, that is Exhibit No. 20. 11 А 12 MS. KATZ: Okay. We are getting into argument. We keep hearing about the need for contracts. We are aware of 13 If Amador County has a position, it needs to have 14 that. evidence to go with it. That's what we need to hear. 15 Α It's the absence of evidence, the absence of that 16 17 criteria that is before you that we think makes these hearings on these applications legally unfirm. If that's a 18 19 legal conclusion and I am not allowed to give it, I'm sorry. 20 If you would like me to state my professional credentials, I can do that. 21 MR. STUBCHAER: No, this just isn't the place for 22 23 legal argument. I will just quickly sum up by saying that the 24 А decision makers in this case should see Silver Lake now in 25 June. They should see it again in October after all of the 26 releases by PG&E have been concluded for production of 27 28 power. You should bear in mind that what we don't want to 29 see happen is have the lake look in June the way it looks in October. 30 31 That concludes my testimony. I'm sorry if it was I didn't mean it to be. 32 contentious. MR. GALLERY: Thank you, Mr. Hahn. 33 Our last witness is Stephanie D'Agostini. 34 STEPHANIE D'AGOSTINI 35 36 having been sworn, testified as follows: DIRECT EXAMINATION 37 38 by MR. GALLERY: Ms. D'Agostini, would you state your name for the 39 Q record and spell your last name. 40 My name is Stephanie D'Aqostini, D-'-A-q-o-s-t-i-n-41 Α 42 i. Ms. D'Agostini, first your background and 43 0 44 involvement with Amador County.

I am not an expert. I am merely an elected 1 Α 2 official. I have been Chairman of the board for the entire of 1993 and I was elected to said board in 1990. Before 3 4 that I was a County employee from 1986 on. And you have a family history in Amador County? 5 0 I am a fourth-generation resident of Amador County, 6 Α also the third generation to the Board of Supervisors. 7 My grandfather and uncle were also on the board specializing in 8 water issues. 9 And is Amador Exhibit No. 15 a copy of the testimony 10 0 that you are presenting in this hearing? 11 12 Yes, it is. Α Would you give us a summary of your testimony. 13 Q Mr. Stubchaer, if I may ask permission to read my 14 Α testimony, it is only a page and a half. 15 MR. STUBCHAER: All right. 16 17 You have heard from the County's lawyers and Α engineers about the environmental and hydrological impact on 18 19 Amador County in the event that El Dorado draws down Silver 20 Lake levels during the summer recreation season below PG&E's historic lake levels. 21 I wish to address another aspect of this decision, 22 23 that of the public trust, which is a part of your mandate as a member of this board. As an elected official, I am acute 24 aware of the trusts that the public has placed in us to 25 quard our special resources. Some resources are beyond 26 ownership simply because they are too valuable to the public 27 28 to be converted into private use. They must remain 29 available to the public. One of those resources is Silver Lake in my County. 30 31 Amador County sits on the western slope of the Sierra Nevada, astride what has become a major west/east trans-32 Sierra route, Highway 88. 33 34 As a traveler moves from the coast through Central Valley to the foothills, she or he can only wonder at the 35 36 spectacle of California. That wonder increases as the traveler moves east through Amador County up to the slope of 37 38 the Sierras. At nearly the crest of the Sierras, having traveled 39 across almost all of California, that traveler comes upon 40 Silver Lake. To put it simply, the lake is the diamond in 41 the crown of California. The lake is visible to all who 42 cross the Sierras on Highway 88 and it is used during the 43 44 summer recreation months by thousands of people who come

1 from all over the state to use the lake for recreational 2 purposes. They have the ability to use Silver Lake for all 3 4 kinds of recreation, sailing, fishing, swimming, hiking, and for teaching their children to respect nature. But the key 5 is that they are able to enjoy these activities in what is 6 simply the most beautiful alpine setting in California. 7 They are able to enjoy their activities on the whole 8 9 lake, not half a lake and half a mud flat. 10 I am a politician elected to provide government in Amador County at a time when governance and government are 11 12 two entirely separate concepts. Government is looked upon with disdain, distrust and 13 dislike. There is a reason for that. All too often, 14 government officials do not serve the public but provide 15 benefits to a small group. 16 17 Your decision on this application is a perfect opportunity to govern in a positive sense to provide 18 19 governance, not mere government. 20 The way to do that is to protect Silver Lake as it is now and has been used for the last 130 years and to 21 prevent El Dorado from doing what government all too often, 22 23 to narrowly serve its own constituents at the expense of the 24 general public. To lose Silver Lake as a whole, beautiful pristine 25 alpine lake available for use by people from many counties, 26 many states, and indeed, many nations to serve subdivisions 27 28 which are not yet built in El Dorado, would show the crassest kind of disregard for the public good. 29 I ask you to make sure that El Dorado leaves Silver 30 Lake alone so that it can continue to be the brightest yule 31 of the Sierras. The public can only be served by your 32 maintaining Silver Lake the way it is and has always been. 33 I could make a pitch to you to keep Silver Lake 34 whole based on economics, but I don't think economics is the 35 36 issue here. God gave us something which is unique and magnificent, and available to everyone. It would be a 37 tragedy and travesty if that uniqueness, magnificence and 38 availability are lost through government are lost through 39 government action so that more subdivisions can be built. 40 Thank you. 41 MR. STUBCHAER: 42 Thank you. 43 It is almost lunchtime. 44 MR. GALLERY: That concludes our testimony, Mr. Chairman, and my next step is to briefly go through other 45

exhibits that we propose to put into evidence and offer them 1 in evidence, although because four additional exhibits have 2 been distributed, perhaps we should wait until after lunch. 3 4 MR. STUBCHAER: I think it would be wise to wait until after lunch and after the cross-examination of Dr. 5 Curry from a previous panel, and then we will resume cross-6 examination of your panel, and discussion of the exhibits. 7 Is that all right? 8 9 MR. GALLERY: That would be all right. I was hoping to release my witnesses as soon as possible. The exhibits, 10 other than their testimony, pretty much stand alone and do 11 12 not involve their testimony. If it would be possible to get them in in case there 13 was any question about that --14 MR. STUBCHAER: They have to be here for cross-15 examination. It is a question whether this should occur 16 17 right after lunch or after Dr. Curry. 18 MR. GALLERY: I just have one more item, Mr. 19 Stubchaer. Our Exhibit No. 17 is the 1968 Amador County Route 88 Scenic Highway Report, and we are offering that by 20 reference as permitted by the Board's rules. We filed a 21 copy of the report. It is a green-covered report and we did 22 23 not distribute that to the other parties because we are offering it by reference. 24 25 I do, however, have seven copies of it if anyone would like a copy to look at before this afternoon. 26 27 MR. STUBCHAER: All right. You can leave them on the table. We can have a show of hands as to who wants a 28 29 full copy of this report. Staff, do you have enough copies? 30 That at the resumption of the hearing 31 MR. GALLERY: after lunch, did you want Dr. Curry to go first, or is that 32 the --33 34 MR. STUBCHAER: Yes. Are you ready for a recess? 35 MR. GALLERY: Yes. 36 MR. STUBCHAER: We will recess until 1:15. 37 (Noon Recess) 38 39 40 41 42 43 44 45

2 3 4 5 6 7 8 9 10 MONDAY, JUNE 21, 1993, 1:15 P.M. 11 12 ------MR. STUBCHAER: Good afternoon. We will resume the 13 El Dorado water rights hearing. 14 First, we will continue with the cross-examination 15 of the Sierra Club Legal Defense Fund expert panel witness, 16 17 Dr. Curry by Mr. Somach. 18 CROSS-EXAMINATION continued 19 OF ROBERT R. CURRY 20 by MR. SOMACH: 21 0 Dr. Curry, would I be accurate in characterizing your testimony to be that in your opinion the project as 22 23 described by the applicant just won't work? That wasn't the intent of my testimony. 24 The intent А of my testimony was to say that I didn't have enough 25 information to assess whether the project would work. 26 And in not having enough information to assess 27 0 28 whether the project would work, you then postulated that in order for it to work, there would have to be some 29 modification of the reservoir operation or the upper lakes 30 operation; is that correct? 31 I came up with three possibilities: One, new 32 А storage reservoirs; two, reoperation of Folsom storage; 33 three, or reoperation of the upper lakes. 34 35 I said that in my opinion that was the least cost 36 alternative and the most probable one. Do you have a copy of El Dorado County Water Agency 37 0 38 Exhibit No. 46 for this hearing? I'm sorry, I don't know what that is. Does it have 39 Α a title? 40 Yes. It is the White Rock Project, El Dorado Water 41 0 Requirement, November 9, 1992, prepared for the El Dorado 42 County Water Agency by Sierra Hydro-Tech. 43 44 I don't have that before me. А Do you now have a copy of that? 45 Q

I do now. Are you referring to a specific exhibit 1 Α 2 number? Yes, Exhibit No. 46. It is at the beginning. 3 0 4 Α Yes, those look like the tables that I have seen. The tables, but have you reviewed that report in its 5 Ο entirety? 6 7 Α No, I have not reviewed that report in its entirety. So you wouldn't know whether or not that report 8 0 described with more specificity the proposed operation of 9 the El Dorado project; is that correct? 10 Well, I did read that this project was to be 11 Α 12 evaluated at a later time, subsequent to the current environmental assessment. 13 You are confusing the White Rock project, I believe, 14 0 with the El Dorado project, which was described in the EIR. 15 You have indicated you have not read that document, Exhibit 16 17 No. 46, in its entirety, so you couldn't tell whether or not it described how the project that is the subject of these 18 19 hearings is to operate; could you? 20 How the White Rock project is to operate? Α 21 No, how the El Dorado project that is the subject of 0 these hearings is to operate. 22 23 Α I'm sorry, I am confused because this says the White Rock project, El Dorado water requirements. 24 You have not read that report; have you, is my 25 0 question? 26 I am looking at Appendix A. 27 Α 28 MR. STUBCHAER: You are not talking about the same 29 report. He is looking at a report, Exhibit No. 30 MR. SOMACH: 46, and he has indicated he has not read that in its 31 entirety. All I am asking is whether or not as a 32 consequence, he can't tell whether or not that report 33 describes how the project that is the subject of these 34 hearings is to be operated. 35 36 MR. VOLKER: I am going to pose an objection at this He has testified he hasn't read the report in its 37 point. 38 entirety --MR. SOMACH: 39 My question is not argumentative. It is fairly simple. As a consequence, you can't --40 MR. STUBCHAER: You can't just say you can't, say 41 42 can you? MR. SOMACH: Q Can you tell me whether or not that 43 44 report describes the operation of the project that is the subject of these hearings? 45

I cannot tell you that. 1 Α 2 Okay. I apologize for even seeming like I was being Ο argumentative. 3 4 Could we put on the overhead, your RC-24. 5 Α Sure. Now, as I understand it, RC-24, that's supposed to 6 Q be Sly Park Reservoir; is that correct? 7 That's the operational data for Sly Park Reservoir, 8 Α 9 yes. And now there's a hashed line toward the top and it 10 Q says full? 11 12 А Correct. And where is that line, at what level? 13 Q I don't honestly remember what the capacity line is. 14 Α I would have to go to my database. 15 Can you give me an estimate by looking at your graph 16 0 17 RC-24? It looks like about 67,500, or something like that, 18 Α 19 acre-feet. 20 And again, your database for this, where did that 0 21 come from? The California Data Exchange Center, the DWR 22 Α 23 database across the street from here. And if I told you that the capacity of the Sly Park 24 0 Reservoir was actually 41,000 acre-feet, would there be an 25 apparent error in what is depicted on RC-24 versus what 26 would, in fact, be the case? 27 28 Yes. I am looking at the total storage, not the Α 29 live storage. Does full not mean when the reservoir is to its 30 Q 31 capacity? 32 Α Correct. If its capacity was, in fact, 41,000 acre-feet --33 0 Forty-one thousand acre-feet could be the live 34 А storage, sir, and there would be a dead storage beneath 35 36 that, and if I am not mistaken, there is a very large dead 37 storage. 38 So what you are saying is, whatever is depicted Q there, it involves both the dead pool as well as the active 39 40 portions of the reservoir? If what you tell me is correct, that would be my 41 Α hypothesis to explain why the DWR data differs from what you 42 said. 43 44 Now, you indicated, I believe, in your verbal 0 testimony that Folsom Reservoir could not be used for 45

storage of El Dorado project water because of high pumping 1 2 costs; is that correct? That's what I got out of the EIR and responsive 3 Α 4 statements to the EIR from your application agencies. And you heard the testimony of Mr. Hannaford? 5 Ο Yes, I did, on Monday. Α 6 And it's your belief that he testified that the El 7 Q Dorado project could not take any water from Folsom 8 9 Reservoir? I made notes specifically on Mr. 10 Δ Let me see. Hannaford's testimony. Folsom and Sly Park could be used in 11 12 our analysis. We use water from Sly Park to make up any deficit, is what I believe I quoted Mr. Hannaford as saying. 13 And that's what you are referring to in your 14 0 testimony that says that it would be too expensive to pump 15 water back from Folsom Reservoir? 16 17 No, sir, that refers to the EIR. Α And was the reference in the EIR to the expense of 18 0 19 pumping all the water back or the incremental cost of 20 pumping? 21 Α It's not clear from the EIR. I know that you actually do pump water out of Folsom for a portion of your 22 23 service area, lower portion of your service area, but what I interpreted from what you stated in the EIR was that it 24 would be too expensive to pump the incremental additional 25 level up to the higher elevation service area that you have 26 to serve out of Folsom. 27 28 That area then that is outside of the El Dorado Q 29 Hills area, the west slope? I believe that's correct, yes, sir. 30 Α 31 Q But it was economic to pump into the west slope area, the El Dorado Hills area? 32 I don't believe it said that in the EIR, but I know 33 Α that you do do that, so, therefore, there must be -- you 34 aren't in business to lose business. 35 36 So, if you could put on your RC-25 --Q Sure. RC-25 is on. 37 А And do you have RC-26 -- before you sit down, if you 38 Q could describe what RC-25 shows one more time, and then RC-39 40 26. I have some questions I want to ask you about both of those exhibits. 41 RC-25 changes the scale of the vertical axis here to 42 Α simply show the excess reservoir capacity that exists and it 43 44 places on that chart a line at 17,000 acre-feet indicating where that would be so that we can see by years since 45

closure of Sly Park Reservoir what excess capacity exists 1 2 and we can see the three years where the excess capacity exceeded 17,000 acre-feet, and we can see other years where 3 4 it's 12,000, 9,000, 6,000, et cetera. Now, is the assumption that's built into that 5 Ο exhibit in terms of its relevance to this hearing the fact 6 that you can't store 17,000 acre-feet in Sly Park Reservoir, 7 except in the years where 17,000 acre-feet of reservoir 8 space is available? 9 Α There are no assumptions. This is straight. 10 Ι tried to do this without bias. This is straight data out of 11 12 the database. And what it shows is that there is more storage capacity in some years and much less storage 13 capacity in other years, and that the bulk of the years have 14 very small amounts of storage capacity. 15 I didn't do a statistical analysis of what amounts 16 17 of storage capacity was available on the average, or any particular recurrence interval of years. I figure that's 18 19 the applicants' job. 20 Right, but I am still trying to understand the 0 21 relevance. I just want to ask you whether or not you assumed at all in preparing this particular exhibit that the 22 23 applicant intended to store or try to store 17,000 acre-feet of this water in Sly Park Reservoir, and by this water, I 24 mean water under the applications that are the subject of 25 this hearing. 26 There is no statement that I could find that says 27 Α 28 the applicant intends to store 17,000 acre-feet of water in 29 Sly Park Reservoir. Does this exhibit address at all whether or not Sly 30 Q Park Reservoir could be utilized for regulation as opposed 31 32 to storage? It does not. 33 А So that there is no assumption built into this 34 0 exhibit that Sly Park could not be utilized for some kind of 35 36 regulation; is that correct? 37 At seasons other than the demand season, you mean? А 38 Q At any time. There is no assumption -- all this data show are the 39 Α springtime high capacities of Sly Park Reservoir, so what 40 you do at a non-springtime is not included in this analysis. 41 Did your analysis at all contemplate utilizing this 42 0 reservoir as a reregulation or regulation reservoir for the 43 44 utilization of water that would be acquired under these permits if they were issued? 45

I didn't see that in the data that I was presented, 1 А 2 so, no, I did not do that analysis. I did the analysis only as a storage reservoir, as Mr. Hannaford mentioned in his 3 4 direct, or perhaps cross-examination testimony. Would you put RC-26. 5 0 Certainly. 6 Α Now, RC-26 is what? 7 Q RC-26 shows graphically the full capacity of, I 8 А quess, dead plus live storage for Sly Park Reservoir, and 9 shows at the top of that various white bars indicating the 10 amount of excess capacity that would have been available 11 12 during those particular years had the applicant had water in that reservoir to store. 13 Is the assumption here also that it was the 14 Ο intention of the applicant to store 17,000 acre-feet in Sly 15 Park Reservoir? 16 17 I merely responded to Mr. Hannaford's statement. Α Ι don't know that the applicant intended to store 17,000. 18 Ι 19 would imagine they wouldn't intend to store 17,000 acre-20 feet, but that they would have to store some substantial portion of that somewhere. 21 Does this exhibit provide information on the 22 0 23 reregulation or regulation capacity of Sly Park Reservoir? To the extent that this exhibit demonstrates only 24 Α the high springtime capacity, it does not discuss the option 25 to reregulate winter flows in the winter. 26 27 MR. SOMACH: Thank you. Just a point of clarification. You 28 MR. STUBCHAER: 29 say it shows the high springtime capacity. Don't you mean the minimum springtime capacity? Isn't that the capacity 30 31 minus the storage? You are absolutely correct, Mr. Chairman. 32 Α Thank 33 you. MR. SOMACH: It is always nice to know someone is 34 35 listening. 36 MR. STUBCHAER: Keeps you on your toes. A In your oral testimony, I believe 37 MR. SOMACH: you indicated, and don't let me put words in your mouth, and 38 correct me if I am wrong, but you assume the El Dorado 39 project is expected to meet the full demand of 115,000 new 40 residents. Is that an accurate statement? 41 That's my understanding, yes. 42 Α Now, when you make that assumption and I am just 43 0 44 probing the assumption itself, do you assume that the existing facilities and water supplies of the El Dorado 45

Irrigation District are completely utilized prior to the 1 2 first resident of the 115,000 new residents coming in and, therefore, the entire new demand has got to be satisfied by 3 4 the water that's the subject of these hearings? Okay, that's a fair question. I understand the 5 Α question, I believe. 6 7 No, certainly, I do not. I assume that only during times of considerable depth of drought do the existing 8 9 supplies meet and inadequately meet the demand at the present, so that the new demand would have to be drawing 10 upon the new allocations of water which you seek, but not 11 12 during wet years, of course not. Do you know what percentage of years, in fact, the 13 Q project will draw upon these additional supplies as you move 14 out toward the ultimate 2020 level of demand? 15 I didn't see data specifically directed to that. 16 Α 17 Perhaps I missed that. No, I don't know the answer to that question. 18 19 You also, I believe, threw in a statement with 0 20 respect to demographics. Yes, sir. 21 А 22 Do you have any reason to disagree with testimony Ο 23 that was provided here indicated that the El Dorado Irrigation District supply demand curve will cross in 1997? 24 25 А No. So, regardless of the 2020 level, you have no reason 26 0 to disagree in what three years, four years hence, there 27 28 will be a supply demand problem in El Dorado County? 29 I presume that you are right on target with those Α close-in projections and that assumes average precipitation. 30 With respect to your oral testimony, you compared 31 Q average unimpaired flow in the lower American River during 32 the 1929-31 period with the 1975-77 period? 33 34 Correct. А I am kind of curious as to why you selected the 35 0 36 1975-77 period? It may actually not have been the 1975-77 period. 37 А Ι 38 picked the three overlapping years of release flow that included 1977, and looked for the totals and then looked 39 40 back in the record to see whether there were any other three-year cumulative periods with lesser flow and found 41 that 1929 through 1931 was such a period. 42 Well, you don't know whether or not you utilized 43 0 44 1975 as one of those years?

According to my notes, it does say 1975-77, although 1 Α 2 it obviously came out of the computer and I may not accurately have gone back to figure out which actual year 3 4 represented the three-year overlap. But I do know the amount. The amount was 1,256,000 5 acre-feet of reconstructed flow at Folsom, was the average 6 for that three-year period that included 1977; whereas, the 7 earlier three-year period that had a lower flow was 8 1,171,000 acre-feet. 9 Dr. Curry, can you show me where you showed your 10 0 work so that we can go back and understand this? 11 12 Sure. Α Did you provide this as part of your testimony? 13 Q No, I translated it into these charts and graphs. 14 Α Ι did provide you with -- I am handing him the raw data from 15 which RC-22 was constructed. 16 17 Okay. I wonder if we could get copies of this. Ι 0 won't need it for my cross, but I certainly would like to 18 19 see the work that Dr. Curry relied upon. 20 What happens if I told you that in 1975, Folsom 21 Reservoir filled and spilled? 22 We are talking water years now? Α 23 Q Yes. Well, that may well be. All I am telling you is 24 А that 1975, 1976 and 1977, as you can see from RC-22, were 25 the three consecutive lowest years around the 1977 drought. 26 It doesn't matter whether it filled and spilled. These are 27 28 reconstructed flows. Pretend like Folsom Reservoir wasn't there, and I picked three years. I have to be fair. 29 I have to pick even if it is a big runoff year, I have to pick a 30 big runoff year. I picked the lowest flow within two years 31 of 1977, and that was 1975. 1978 was considerably a higher 32 33 flow than 1975. You are making a comparison, however, if I 34 0 understand your testimony, of a series of dry years, and as 35 36 I understand what your contention is, is that the '29thourgh -31 period was a drier period than the '75-through-37 38 77 period. 39 Α Correct. Exactly correct. That's the way we analyze drought period demands in water resources. 40 But you took three years. Why didn't you take two 41 0 42 years? Three years is the conventional figure. It has to 43 Α 44 do with the amount of time it takes a soil water reservoir to be used up effectively so that when you get new 45

precipitation after that period of time, it doesn't provide 1 2 runoff, but regenerates the soil water reservoir, so the fourth year of a three-year drought, if it is broken in the 3 4 fourth year will not create runoff. So, the three-year period is the critical period for 5 planning. That's the reason I picked three years. Two 6 years is too short. The trees and the shallow vadose 7 groundwater zone still will hold water within two years of a 8 9 drought. Does the Department of Water Resources in the 10 0 context of its work utilize the '29-31 period, or do they 11 12 utilize the period including 1977? I don't know, sir. I only was looking at the 13 Α American River basin specifically. 14 I am talking about the American River basin. 15 Q Isn't it true that they use the period that includes 1977? 16 17 I don't know. I got these data and I handed you the Α data directly from the Department of Water Resources. 18 19 So you just simply took the data off and made 0 20 calculations and you didn't know how the Department of Water 21 Resources itself, the entity that generates the data, utilized it; is that correct? 22 23 А The data are actually generated by the USGS and tabulated by the Department of Water Resources, and I do 24 know how Maurie Roos of the Department of Water Resources, 25 who is in charge of their computation of long-term 26 streamflow and streamflow deficits, uses the data, but when 27 28 you say the Department, I don't know who you refer to or 29 what you mean; no, sir. You used some words in your written testimony like 30 Q hedging, and I believe you also indicated that there was 31 some -- ell, you used other words along that line, that 32 33 somehow El Dorado County was hiding the ball. I that an accurate characterization of some of your 34 35 testimony? 36 Α The words I used in my written testimony were not intended to be passed out to the group. I'm sure you can 37 38 see there were notes to myself, which counsel advised me I had better have on the table this morning. I used words 39 40 like shell game and hedging; yes, I used those words. You used some of those words in your written 41 0 42 testimony; isn't that correct? In the written testimony I submitted originally? 43 А 44 Q Originally. Perhaps so. I don't have a copy of that. 45 Α

Did you have anything specific in mind when you 1 0 2 submitted that testimony -- of your own knowledge, do you know whether or not El Dorado County is hedging or being 3 4 involved or being in some kind of shell game? Of course, I don't know from my own knowledge what 5 Α the intent of El Dorado County Water Agency is. All I can 6 do is look at the written record, look at the availability 7 of water, look at your demand projections, and from that 8 9 make reasonable professional assumptions that, indeed, you are trying to commandeer as much available water as you 10 possibly can at the present point in time, and that you will 11 then later work out how you intend to utilize that water. 12 Well, if El Dorado merely relies upon releases from 13 Q these upstream lakes whenever PG&E releases, and assuming no 14 behind-the-scenes game is being played, what adverse impacts 15 would El Dorado diversion have on these upstream lakes? 16 17 Once again, this question has been asked. If, А indeed, the lakes are operated by PG&E and there is no 18 19 pressure put on PG&E for any different operational 20 schedules, then there would be no changed impact upon the upstream lakes from that operation, with the exception of 21 the fact that Fish and Game releases will probably be 22 23 increased from those lakes anyway as we would anticipate in the future, so that will have a deleterious effect, but it 24 has nothing to do with El Dorado Irrigation District. 25 Now, you make a statement, and this is on your 26 0 written testimony at page 11 at --27 28 А I have that before me now. -- paragraph 14, where you purport to comment about 29 0 a statement made by the watermaster for City and County of 30 Sacramento. You say the current flows in the middle and 31 lower American River are adequate at present and county of 32 origin issues are not yet incorporated into water rights. 33 Are you an expert in water rights? 34 I teach water rights and water rights issues at the 35 Α University of California. John Williams has worked with me 36 much in the past. I worked with the judge who put together 37 the decision that appointed John Williams as watermaster. 38 39 I have talked at length with that judge about those water rights issues for the American River, and talked to 40 John Williams, and this was based upon my discussions with 41 42 those gentlemen. 43 What does this mean, county of origin issues are not 0 44 yet incorporated into water rights?

Well, I am not a lawyer, so I am perhaps not making 1 Α 2 myself clear, but what I mean is that the changing climate of water rights law and water rights decisions in California 3 4 is moving toward, in my opinion based upon my readings and my research, a higher level of recognition of county of 5 Specifically, one that is most interesting origin issues. 6 right now in the State of California is the Mono County 7 origin of water right issues with respect to the water 8 rights allocation by the City of Los Angeles, and these 9 issues are becoming a focal point for a number of different 10 counties in the State of California, and I try to keep track 11 12 of the State as a whole, and this was not meant to focus specifically on what's ongoing in this. 13 I simply said that I didn't see the county of origin 14 issues coming into play in the EIRs and I did appreciate 15 that these were becoming important issues statewide. 16 17 Well, isn't it true that El Dorado County is a Q county of origin of some of this water? 18 19 Α Yes. 20 And so, that their rights, as I understand it, their 0 21 consumptive use rights should be incorporated into water 22 rights; is that accurate? 23 Α To the extent that water originates within the 24 County, but the reservoirs in this case, two of the largest reservoirs, Caples and Silver, are not in El Dorado County. 25 MR. STUBCHAER: How much more time will you need? 26 27 MR. SOMACH: Not very much. I just have a couple 28 more questions. 29 Take a look at paragraph 15 of your written Q 30 testimony. I have it before me. 31 Α 32 0 What do you mean on page -- what are you talking when you say maintain an already deleteriously impacted 33 system through cumulative impacts. 34 If you can answer that question in the context of 35 36 this situation. Certainly, it has to be context specific. 37 In this А 38 particular situation, the Fish and Game, the California State and Federal fish release regulations that are in place 39 and that are being contemplated we have hear about here in 40 these hearings in the last several days, for example, 41 42 indicate clearly that the system today; that is, the watershed system of the South Fork American River and the 43 44 other tributaries of the American River, today does not supply enough flow in parts of the year to maintain the 45

fisheries that the State of California would like to 1 2 maintain in the public trust. And, therefore, we are dealing in a system that is 3 4 already impacted, that is already optimal, and we are incrementally adding to that suboptimal condition by once 5 again taking from that allocation; and in the area of 6 cumulative effects, of which I am a specialist, that falls 7 directly in the purview of taking a suboptimal condition and 8 9 maintaining it in suboptimal status, or not allowing the regulatory agencies to try to bring it into an optimal 10 status because we don't have enough water to bring it into 11 12 an optimal status. As you have heard from other testimony, as you have 13 heard from prior testimony here, as you have heard from Fish 14 and Game, as you have heard from the Forest Service, as you 15 have heard from the Fish and Wildlife Service, as you have 16 17 heard from the U. S. Bureau of Reclamation, the move at present is to require more fish releases, and if the 18 19 applicants' desire is to take water that could have been 20 used for those fishery releases and utilize it for projected 21 growth, then we are maintaining a deleteriously already affected watershed system. 22 23 0 Finally, I want to ask a question with respect to your statement on peaking power. I looked carefully through 24 your written testimony and I couldn't find any place where 25 you showed your work in terms of conclusions. You just made 26 a lot of conclusionary statements there and there was 27 28 absolutely nothing that clarified it. 29 Let me ask you, is it your opinion, based upon what I read and what I heard in terms of your oral testimony, 30 that we need additional hydropower facilities in California 31 to make up what appears to be, in your opinion, a lack of 32 peaking capacity? 33 That's not my opinion. I believe that through 34 Α conservation we can make do with what peaking capacity we 35 36 have in the State of California at present. As well as teaching water resources assessment and 37 38 policy, I also teach energy resources assessment and policy because these are intimately connected in the State of 39 California, and thus, the issues of peaking power and 40 peaking power demand are, indeed, things that I study very 41 carefully. 42 I try to evaluate how that demand is driven. One of 43 44 the key things that drives peaking power demand at the present time is the air conditioning load in rooms like 45

this; and second, the pumping demand for irrigation in the 1 2 Central Valley, afternoon pumping demands, and those demands are increasing at a time when our load resources are 3 4 stretched to their maximum. And the only way, I believe, that we can get around 5 that is to have residential and industrial users stop using 6 as much power at peaking power time. 7 Are you familiar with the 1990 marginal cost study 8 Q 9 conducted by SMUD? I am not familiar with the 1990 marginal cost study. 10 Α Would you be surprised that that study reached a 11 Q 12 conclusion with respect to the marginal cost of new peaking power from the one you reached? 13 I would. 14 А MR. SOMACH: I have no further questions. 15 MR. JACKSON: Mr. Stubchaer, I do have some 16 17 questions. 18 MR. STUBCHAER: On what? 19 MR. JACKSON: In regard to the question of the environmental EIR hydrology of the Lotus stretch. 20 MR. STUBCHAER: I'm going to limit additional cross-21 examination to the four new exhibits which were introduced 22 23 this morning. There was opportunity before lunch for all those who wanted to cross-examine, and so, if you have 24 questions on these four specific exhibits, I will permit it. 25 Are there more than four? 26 MS. KATZ: Of Amador? 27 28 MR. STUBCHAER: I'm sorry, I have the wrong pile --29 on the graphs, right. MR. JACKSON: It will be on the graphs, but it will 30 relate to one specifically identified issue. 31 MR. STUBCHAER: Just on this evidence. All right. 32 Can you limit to that? Otherwise, we will have to open it 33 up to all if we go back and revisit what we did this 34 35 morning. 36 What are you referring to? MR. JACKSON: I am referring to the final EIR and I 37 38 am going to try to relate that to the documents. 39 MR. STUBCHAER: How much time do you think you will 40 need? Not very much, five minutes, probably 41 MR. JACKSON: 42 less. 43 CROSS-EXAMINATION continued 44 by MR. JACKSON:

Dr. Curry, calling your attention to the final EIR 1 0 2 at page 4-8 --I have that before me. 3 Α 4 Q Well, we may be looking at --I have the draft instead of the final. 5 Α I'm sorry. Calling your attention to the only significant 6 0 impact identified for the El Dorado project, the reduced 7 opportunities that would result for white water boating in 8 the South Fork of the American River, there is a mitigation 9 measure suggested. 10 That is an incorrect statement. MR. SOMACH: You 11 12 said the only. MR. JACKSON: That is the only one I could find. 13 Is there another one? 14 15 MR. SOMACH: There's growth-inducing impacts, cumulative impacts. 16 17 MR. JACKSON: It is the only one listed in the 18 document. 19 MR. SOMACH: It is the only direct impact. I wanted 20 to make sure the statement is correct. 21 MR. JACKSON: Q The only direct impact found to be significant by the final EIR is the reduced opportunity that 22 23 would result from white water boating. There is a mitigation measure which is listed below. It says, the 24 schedule for diverting consumptive water deliveries should 25 be restructured so that SMUD and PG&E are able to meet white 26 water boating rafting needs. 27 28 Can you determine how those flows could be 29 restructured to meet higher rafting needs on the Lotus reach given the fact that there's no storage? 30 Well, again, my conclusions were that they would, in 31 А fact, have to resort to releases from the upper lakes and 32 that they could use releases from the upper lakes to 33 mitigate rafting flows, but if we stick to the claim that 34 they aren't going to change the upper lakes, then we have 35 36 only got the little two-day storage issue and they could use the two-day storage as a mitigation by changing the hours of 37 38 release which are difficult because today we use that to meet peaking power needs, and if you change the hours, you 39 can't change the hours, that it is hot during the day and we 40 have to change everybody's air conditioning load, too. 41 So, in other words, for this mitigation measure to 42 0 work from your expertise as a hydrologist, they would be 43 44 required to either change PG&E's method of operation for peaking power, or lower the upper lakes? 45

Without additional offstream storage, yes. 1 Α 2 MR. JACKSON: I have no further questions. MR. STUBCHAER: All right, Mr. Volker. 3 4 MR. VOLKER: No redirect. MR. STUBCHAER: Do you wish to offer your exhibits 5 6 at this time? 7 MR. VOLKER: Yes, I would like to. I will go through them once again, if this would be helpful. 8 That 9 would be Exhibits 8, 10, 11 and 12, and 13, I am actually offering based on a stipulation that I think Mr. Somach and 10 I can agree to. Exhibit 12 is a Declaration of the Amador 11 12 County Surveyor, which authenticates the old Wagon Road as the Amador/El Dorado County line. And Mr. Somach has agreed 13 not to object to this Declaration provided that he is given 14 five days in which to respond as appropriate with a 15 Declaration of his own, and then subject to my further right 16 17 to cross-examine his declarant in the vent it becomes an 18 issue. 19 I just want to bring that up because it is next in 20 order. The other exhibits --21 MR. STUBCHAER: Just a moment on that one. Are you 22 23 suggesting then that the hearing be held open for five days so that exhibit would be received, and then you cross-24 25 examine on it? MR. VOLKER: Personally, I think it should be 26 received today without that proviso. I am willing to agree 27 28 to a five-day extension for Mr. Somach. I suggest that rather than reopen this hearing that any further cross-29 examination be conducted on a deposition basis. 30 That's his proposal and I don't object to that, but 31 my preference would be simply to accept this at present, and 32 if Mr. Somach wished to present rebuttal testimony, he could 33 do so before the end of this hearing. 34 MR. SOMACH: Let me address that. As you know, this 35 testimony came in last week in somewhat -- it came in just 36 like that. And at that time, Mr. Volker and I talked and he 37 indicated that he would provide for me some written 38 statements along the lines of a declaration so I could have 39 40 something to look at. He did that today. My problem is I would just simply like to have the 41 ability -- I don't know whether it is right or wrong. 42 Ι don't know whether I would have any cross-examination 43 44 questions. I simply don't know.

I want the County El Dorado Surveyor to take a look 1 2 at it along with County Counsel, and then, all I suggested was that we could hold the record open for five days and I 3 4 would submit an affidavit if I had any differences with respect to what was in this affidavit. I could submit them 5 in writing rather than going through the effort of putting 6 on some kind of rebuttal testimony, which I can't do 7 tomorrow because I haven't had a chance to talk to the 8 9 County Surveyor or the County Counsel on the issue. This is an attempt on my part -- this was surprise 10 evidence and it's an attempt on my part to allow it to come 11 12 in and allow us some ability however not to be blind-sided by it with the submission of a subsequent written document. 13 I can't even tell you right now whether or not I 14 would file a document in opposition. I simply don't know 15 because the first time I saw the information in its detail 16 17 was this morning. MR. STUBCHAER: How would the rights of other 18 19 parties in this proceeding be handled? 20 MR. SOMACH: My understanding is that we were the 21 only ones that objected to the testimony. MS. KATZ: We haven't seen the document you are 22 23 talking about, staff hasn't. MR. STUBCHAER: He is just going to introduce it. 24 25 MR. VOLKER: I have offered it, but I was told I should not offer it to the staff until I offered it in the 26 open hearing. It is our Sierra Club proposed Exhibit 12. 27 Ι 28 would be happy to circulate it now for your examination. 29 MR. STUBCHAER: Well, go ahead. Do you have any other exhibits that need to be passed out? 30 I don't believe so. 31 MR. VOLKER: MR. STUBCHAER: Will staff distribute that while we 32 are going over the rest of the exhibits. 33 MR. SOMACH: I will tell you on behalf of the 34 exhibit it is a pretty straightforward document and I don't 35 36 know, again, whether or not we have any objection to it simply because I need certain people to look at it. 37 38 MR. STUBCHAER: The other parties need to be able to look at it, too. 39 40 Please proceed. MR. VOLKER: Mr. Stubchaer, the other exhibits I 41 would offer would be PM-1 through PM-4, and the MS-1, GC-1 42 43 through GC-3, and RC-1 through RC-27. 44 I will withdraw the MS-1 since Mr. Skinner was unavailable for testimony. I will withdraw that. 45

MR. STUBCHAER: Also, number the Declaration. 1 2 MR. LAVENDA: Twelve. MR. STUBCHAER: Is that it, Mr. Volker? 3 4 MR. VOLKER: Yes. MR. STUBCHAER: Are there any objections to the 5 receipt of these exhibits other than the one indicated by 6 Mr. Somach, No. 12? Hearing no objections, all except 12 7 will be received at this time. I will rule on No. 12 at the 8 conclusion of Amador County's cross-examination to give the 9 parties a chance to read the declaration in case there was 10 objection. 11 12 MR. VOLKER: Thank you. MR. STUBCHAER: Mr. Gallery, are you ready for 13 cross-examination? 14 MR. GALLERY: We are, Mr. Stubchaer. 15 My thought was perhaps I could run through briefly 16 17 our exhibits, our other exhibits in addition to the testimony in case there is any cross-examination that might 18 19 relate to that. 20 MR. STUBCHAER: All right. MR. GALLERY: 21 Amador's Exhibit No. 1 is a copy of an excerpt from PG&E's 1968 report to FERC prior to PG&E's 22 23 filing its application for a new license. We are asking to put this into evidence, first, 24 25 because it has a really nice artist's rendering of the South Fork. It is in color. It's the fourth page into the 26 27 document. 28 But beyond that, there is the statement in here that PG&E has been operating Silver Lake to hold lake levels up 29 in the summertime and that appears on page 2 and on page 4, 30 and other pages in the document describe the recreational 31 resources at Silver Lake on pages 25 to 33, and then Plate 5 32 has a map showing the various recreation facilities at 33 Silver Lake in color, all of which we think shows the 34 existing conditions up at the lake. 35 36 Exhibit No. 2 is PG&E's Exhibit S, which was filed with the application, the renewal application in 1970. 37 And Exhibit S contains the statement that PG&E has been 38 operating and will operate Silver Lake to keep the lake 39 levels up in the summertime, and I have highlighted that on 40 pages 4 and 5 of that exhibit. 41 PG&E's submitted its license with its exhibits and 42 stated that Exhibit S was a part of it. 43 44 MR. STUBCHAER: Which witness testified about these terms that you are pulling out of the exhibit? 45

MR. GALLERY: Well, actually, Mr. Clark has 1 2 testified about the recreational resources at Silver Lake, but these are documents which we intend to submit as 3 4 independent evidence unrelated to the witnesses' testimony as documents on file with FERC wherein PG&E has described 5 the recreational facilities at the lake. 6 Now is there a problem with that kind of evidence? 7 That seems to me to be relevant and appropriate evidence in 8 9 describing for the Board what has been happening up there and what the recreational resources are. And we didn't 10 intend to have any witness testify to that. The documents, 11 12 we think, speak for themselves. MR. STUBCHAER: All right, proceed. 13 MR. GALLERY: And then, I did want to ask, PG&E 14 claim Exhibit S is part of the license which was in Exhibit 15 2. I did not find an Exhibit S in my exhibit package. 16 Did 17 staff find an Exhibit S in PG&E's Exhibit No. 2? MR. LAVENDA: I will have to check. 18 19 MR. GALLERY: Let's just pass with it. We would 20 like to put it in because in our exhibit we highlight the portion we think is the most relevant to the hearing. 21 Our Exhibit No. 3 are excerpts, or has excerpts from 22 23 the license that was issued to PG&E in 1980, Project No. 184, and we have highlighted on pages 5, 6 and 7 FERC's own 24 25 description of the recreational --MR. LAVENDA: Excuse me, Exhibit S is in PG&E's 26 Exhibit No. 2. 27 28 MR. GALLERY: It was a part of yours? 29 MR. LAVENDA: Yes. MR. GALLERY: I couldn't find it in mine. I was 30 puzzled by it. The FERC license that was actually issued in 31 1980 did describe in some detail on pages 5, 6 and 7 the 32 recreational facilities and the potential at Silver Lake, 33 noting on page 14 and 21 that there was a heavy recreational 34 demand and, in fact, additional recreational facilities were 35 36 needed to satisfy it. MR. SOMACH: Mr. Gallery is testifying with respect 37 38 to every one of these exhibits. Do they have numbers? Ι will object to the ones he hasn't put in any testimony on 39 40 with respect to. MR. STUBCHAER: Yes, it appears you are testifying. 41 MR. GALLERY: Well, I don't mean to. I do want to 42 draw the Board's attention to the portion of the exhibits we 43 44 think are relevant.

MR. STUBCHAER: You can say the portions that are 1 2 important are highlighted. The next exhibit, No. 4, which is a MR. GALLERY: 3 4 revised Exhibit R, the recreational exhibit that was filed by FERC, and if the Board would note, I have highlighted the 5 portions in pink in the margin that are relevant, and also, 6 the maps which are attached to the recreation Exhibit R. 7 Similarly, on Amador's Exhibit No. 5 is the FERC 8 9 order approving the revised Exhibit R, and I have highlighted the portions that are important there. 10 Amador Exhibit No. 6-A and B is the original land 11 12 office plot of the survey of the two townships in the vicinity of Silver Lake ion 1877, and these are certified 13 copies of the official various plats of the land office and 14 they show in 1977 there was a Silver Lake there, which had 15 an acreage of 322 surface acres. 16 17 Amador Exhibit No. 7 is an exhibit by reference to the California Water Plan Bulletin No. 3, which was 18 19 published in 1957, and we have included pages 112 to 116 which describe what the California Water Plan contemplated 20 by way of development in the South Fork American. 21 Mr. Schuler did testify as to the contents of the 22 23 plan and how Amador sees this plan as assuring the protection of the lakes there for recreational use. 24 And, of 25 course, the key issue in here is El Dorado is asking for assignment of the State filing and our position is that the 26 assignment could not be inconsistent with this plan. 27 28 MR. STUBCHAER: Now you are arguing. 29 MR. GALLERY: Excuse me, I will go on, Mr. Stubchaer. 30 Then, Exhibit 8 and 9 are Mr. Schuler's testimony. 31 Exhibits 8 through 12 and Exhibit 15 are the 32 qualifications and testimony of our witnesses. Exhibits 13 33 and 14 relating to Mr. Alverson's testimony, we will 34 withdraw. 35 36 Exhibits 16 and 17 relate to the fact that Highway 88 as it goes from Jackson up past Silver Lake into Nevada 37 County line has been designated by statute as a scenic 38 highway. And Amador Exhibit 16 is the County adoption of 39 the scenic highway element in its general plan to conform 40 with State law. And Exhibit 17 is Caltrans' own report on 41 the scenic highway, a report on Route 88 as it goes up 42 43 through Amador County.

MS. KATZ: Mr. Gallery, Exhibit 17 you are offering 1 2 by reference. Are there specific pages in there or are you offering the whole thing? 3 4 MR. GALLERY: I'm offering the whole thing, Ms. However, it is paragraph 2.D in the report which 5 Katz. describes Silver Lake and 13 is the photo of Silver Lake in 6 the report. 7 And Exhibit No. 18 is the document from the old 1969 8 9 survey report describing how PG&E was operating Silver and Caples Lakes at that time, and Mr. Lynch in this proceeding 10 testified that's basically how it is being operated today, 11 and that has been offered into evidence, and then, we come 12 to the four additional exhibits which we distributed this 13 morning. 14 Exhibit 19 is a copy of a PG&E map which I filed 15 with FERC as Exhibit K-4. I have now learned that this map 16 17 has been filed by El Dorado as a part of its application, so it is in the file of the Board with the applications that 18 19 are before the Board. So, I think 19 is not needed and does 20 not need to be offered. 21 MR. LAVENDA: You are withdrawing it? MR. GALLERY: Yes, I will withdraw 19. 22 23 Amador Exhibit 20 contains conditions that are proposed by Amador County which it believes the Board needs 24 to incorporate into a permit in order to protect the 25 interests at Silver Lake. 26 And finally, Exhibit No. 21 is a decision of this 27 28 Board in 1988, wherein the Board granted a temporary permit 29 to El Dorado County to appropriate an additional 5,000 acrefeet of this supplemental PG&E water, and the purpose of 30 that is to show that, in fact, El Dorado County needed 31 that --32 33 Objection. MR. SOMACH: MR. GALLERY: Well, I would like to explain the 34 relevance of it, Mr. Chairman. It seems to me we can't 35 36 object to --MR. SOMACH: There has been no testimony as to any 37 38 of this. MR. GALLERY: Well, we have had El Dorado showing 39 that by the year 2020 it may need -- the testimony is that 40 it will not need any additional supplemental water until 41 after 1997, and then there will only be a gradual increase 42 in the need up to the year 2020, when it has an additional 43 44 115,000 people.

1 But in 1988, it came in and asked for and got a 2 permit to an additional 5,000 acre-feet for the 1988 population. 3 4 MR. SOMACH: There has been no testimony at all on 5 any of that. MR. GALLERY: But, you see, we are offering it to 6 show there is some skepticism on the studies, because if 7 they needed that in 1988 --8 9 MR. STUBCHAER: Well, Mr. Somach is right, it hasn't been testified to. You can use it in your argument if it is 10 accepted, but you are offering it now, I understand, and I 11 12 understand why, but we will rule on that after crossexamination. 13 MR. GALLERY: All right. 14 MR. STUBCHAER: Do you have any more? 15 MR. GALLERY: We have one more exhibit, 12-A, which 16 17 was Mr. Hahn's written summary of his testimony. MR. STUBCHAER: Thank you. 18 19 MR. LAVENDA: Mr. Stubchaer, I want to ask if counsel has extra copies of Exhibit 18, as he has introduced 20 it, the former PG&E operations that you introduced last 21 week. 22 23 MR. GALLERY: I don't have any with me, Mr. Lavenda. I distributed copies last week. I can certainly provide you 24 25 with more. I don't have more than one now. MR. STUBCHAER: All right. Are you ready for 26 cross-examination? 27 28 MR. GALLERY: Yes. 29 MR. STUBCHAER: Who wishes to cross-examine these 30 witnesses? Mr. Jackson and staff. All right, Mr. Jackson. 31 CROSS-EXAMINATION 32 MR. JACKSON: 33 by 34 These questions will be for either the Planning 0 Director or Mr. Hahn, I guess. 35 36 Can anyone tell me whether or not Silver Lake was a natural lake prior to PG&E's involvement? 37 38 MR. CLARK: A It was a natural lake. Mr. Clark, how much was it expanded by PG&E's 39 Ο operation, do you know, historically? 40 What I have is 525 acres now. I believe Mr. Gallery 41 А just testified it was 325 acres. 42 Did the use for recreation exist in Amador County 43 0 44 prior to the establishment of the PG&E operation?

I don't know what year PG&E took over the dam. 1 А We 2 were discussing that. The Blue Lake Company and some others had it before PG&E took it over. We have records when we 3 4 were discussing the scenic highway element adoption that people used to come up from Stockton and Sacramento when 5 there was a dirt road there and it was the Alpine Highway, 6 and they used to go to Caples Lake and Silver Lake, and it 7 goes back to trading with the Indians, as recreation even 8 those days. 9 But prior to PG&E's involvement? 10 0 I am not sure what year PG&E became involved, but we 11 А 12 are talking in the early 1900s that we have evidence of the recreation. 13 Has Amador County been able to define PG&E's 14 0 historic operation to any level at all, Mr. Schuler? 15 MR. SCHULER: A What we took was what was in the 16 17 environmental document as the data that we were going to base our agreement with El Dorado on, and we referenced that 18 19 with the USGS records, too, to get compliance with those 20 pieces of data. So, to answer your question, that information has 21 been submitted to the USGS, is what we relied on for the 22 23 historical level. 24 You are not a neophyte in regard to planning dams, 0 planning water projects; are you? 25 Many of our people -- there are many more of our 26 А people that are more experienced than I. I would consider 27 28 myself a neophyte. 29 Do you have criteria in Amador County that would be Q sufficient to set standards for PG&E and El Dorado in the 30 operation of those lakes that you have proposed either to 31 the Board or to the developer, the applicant? 32 If you are speaking of standards being what we 33 Α would --34 35 0 Flows? 36 А Well, we based everything on lake levels, elevations, or staff readings on the lake at the outlet of 37 38 the dam. 39 0 And have you submitted those here as permit conditions? 40 I believe one of those is already in the exhibit. 41 Α One of your proposed conditions is that El Dorado 42 0 and PG&E not be allowed to make further agreements. 43 What is 44 the purpose of that? John might be the person to answer that. 45 Α

MR. HAHN: A I don't think there's a blanket 1 2 prohibition in these conditions that would indicate that PG&E and El Dorado couldn't make an agreement. It is that 3 4 we would like to see the State Water Resources Control Board recognize the lake levels in that agreement and that there 5 wouldn't be any kind of reduction of lake levels below 6 specified levels through that agreement. 7 In Condition 3 --8 Q 9 MR. GALLERY: Could you point that out, Mr. Jackson, where you are referring to? 10 MR. JACKSON: Yes, Condition 3-A. 11 12 The important word in 3-A, Mr. Jackson, it says Α specifically prohibit any further agreement, and then 13 skimming down, for or which causes any change or 14 modification in PG&E's operation at Silver Lake temporarily 15 or otherwise. 16 17 MS. KATZ: This is exhibit 20? This is Exhibit 20, and in paragraph 2, it talks 18 Α 19 about not entering into an agreement that would, in essence, change the operation of PG&E of Silver Lake. 20 MR. JACKSON: Q Assuming that the condition in 21 which the EIR identifies a specific mitigation for the Lotus 22 23 reach of the South Fork of the American River that PG&E's and SMUD's water deliveries need to be reoperated. 24 Would you agree to a drawdown at the lakes for any purpose even if 25 it was necessary for PG&E to do for recreation lower on the 26 27 river? 28 А You have to understand I am an attorney with a 29 client. My client is five supervisors. I have only one here, the chairman, and consequently, I couldn't state 30 formally a position of the Board of Supervisors at this 31 32 time. 33 My inkling, my feeling is that the answer to your question is that the Board would resist releases for fish 34 purposes that would impact on Silver Lake as well as for 35 36 consumptive water use in El Dorado County. And for that you would resist fish purposes, you 37 Ο 38 would resist the white water rafting purpose if the only way that those problems could be met was to compound your 39 40 problems? Yes, I would consider those to be El Dorado's 41 А problem with this project, not Amador County's, and that the 42 solutions to their problems should not come at the expense 43 44 of Amador County.

1 MR. JACKSON: Thank you. I have no further 2 questions. MR. CLARK: A Mr. Jackson, you asked what year and 3 4 I have it, 1928 to 1930 is when PG&E took it over. MR. JACKSON: O And there was recreational 5 development using --6 Highway 88. 7 Α Highway 88 and Silver Lake prior to that date in 8 0 9 your County? 10 Δ Yes. Thank you. I have no further MR. JACKSON: 11 12 questions. MR. STUBCHAER: Staff? 13 EXAMINATION 14 MR. LAVENDA: 15 by Mr. Clark, you testified as to some person day uses, 16 0 17 I believe at Silver Lake, in terms of high recreation use. To your knowledge, did those numbers identify the origin of 18 19 any of the day users or the recreationalists at the lake? In about 1986, the County was working 20 MR. CLARK: А 21 with the U.S. Forest Service on the future recreational use determination environmental document and the 80,000 22 23 recreation visitor days for campground users alone came from that document, and that was in the Highway 88 corridor. 24 25 That wasn't just on Silver Lake. That was probably from Bear River Resort clear over to Caples and beyond. 26 I believe Janice Gordon testified to the actual 27 28 number of Silver Lake, and in that document there are actual Silver Lake numbers. I have them elsewhere. 29 I could find them, but I think she testified to that. 30 I am curious as to place of origin other than 31 Q outside the country, the place of origin of these users. 32 Specifically, do you have any idea how many of these come 33 from El Dorado County? 34 I don't know about El Dorado County, but in the 35 А document I recall, it is in my testimony, I believe, over 80 36 percent of it comes from the Bay Area, Stockton -- I believe 37 it is around 80 percent comes from Stockton and the 38 Sacramento and Bay Area. 39 I think you used the term metropolitan areas. Does 40 0 the Sacramento metropolitan area include the geographical 41 areas to the east of us, i.e., El Dorado County? 42 El Dorado County, probably the western portion there 43 А 44 is some use, but we have noticed that comes up Iron Mountain Road sometimes. There is a lot of traffic up on Mountain 45

Road. We assume a lot of it would be from El Dorado County, 1 because that's where it goes through. 2 You testified that you have been a planner for how 3 0 4 many years? 5 Α Thirteen years. And that includes the period of time in which a 6 Q slide occurred in the South Fork American River between Iron 7 Mountain Road turnout and the Kyburz area? 8 9 Yes. Α And Pioneer Trail became one of the main routes over 10 0 the Sierra into the Tahoe basin, as I recall. Do you have 11 12 any idea what the plausible cause of that slide might have been? 13 It was a mud slide, I believe, that blocked Highway 14 А 50 due to high rainfall. In the period it blocked Highway 15 50 all the traffic came up 88 that normally would have used 16 17 50. That's when we first found out what real traffic would be on Highway 88, and the recreation use for that matter, 18 19 too. 20 Mr. Schuler, in your Exhibit 9 on page 3, the item Ο 21 right after item 2.B., there is a paragraph and let me read Amador County has made these filings, and we are 22 this: 23 talking about your application and petition with the State Board, for the express purpose of retention of a full level 24 in Silver Lake to protect and assure a high level lake each 25 year in June through September. 26 Is it a full level lake that you are referring to 27 0 there, or is it a high level lake from June through October, 28 29 or both? Can you clarify that for me, please? MR. SCHULER: A Of course, the desire is a full 30 31 level lake. 32 Is that the way it has been operated in the past? 0 There have been times when it has been full, and I 33 Α can look that up. More often than not, June, as I recall, 34 was full at the start of the summer and it dropped off after 35 36 that. Well, it's through October --37 Q 38 Then it really drops, September and October. Α So there is no inference by your statement that you 39 0 would expect a full lake in June through October; is there? 40 No, that's wishful thinking. 41 Α On that same page you read in its entirety the 42 0 paragraph near the bottom speaking about Bulletin 3 of the 43 44 Department of Water Resources, the 1957 version.

It is my understanding there's about a five-year 1 cycle for update required by the Department of Water 2 Resources, and this doesn't always occur, but did you have 3 4 some reason for selecting the 1957 version as opposed to a more recent version? 5 No particular reason. The 1957 document was 6 Α 7 available. And it is your contention from that document that 8 0 the reservoirs, particularly Silver Lake, is not included as 9 a place of storage in that document? 10 That's what I got out of the document by reading it. 11 Α 12 There is a small diversion in that plan below Silver Lake, though on the California Plan. 13 On what streams? 14 Ο I believe that was the South Silver Fork. 15 Α I would have to look it up. 16 17 I think there was testimony to the effect that was 0 being considered for wild and scenic, so we could almost 18 19 forget that. I don't know if we could or not. 20 MR. STUBCHAER: You are testifying. Just ask. MR. LAVENDA: Q Going to the last page, page 5 of 21 your testimony, there are some numbers there that you used 22 23 in calculations to justify the amount of water that Amador County was requesting out of Silver Lake, and you make the 24 statement, to provide a margin of safety you double these 25 numbers. 26 27 That is correct. Δ 28 Q What is the source of these numbers? The Forest planned future recreation use 29 Α determination in 1988, the Highway 88 future recreation use 30 31 determination. 32 That gave you the population number, or as you call 0 it, the persons at one time number? 33 34 That's correct. Α Where did you get the water consumption numbers? 35 0 36 Α Those were assumed. Those broke out the overnight users from the day users and assumes that 50 gallons per day 37 38 per capita would be the overnight visitors and 10 gallons per days for the day users. That's an assumption on my 39 part. 40 And then, you proceeded to double these number? 41 0 When I got down to the end, I doubled it for any 42 Α unknown factors for land-use management that might come into 43 44 the future that we were unaware of, a safety factor of two.

You are doubling the population or the numbers, or 1 0 2 just the total amount of water requested? Just the acre-feet. 3 Α 4 Q Are you familiar with the testimony that was given as to the per capita consumption rates for the western area 5 of El Dorado Irrigation District? 6 I don't remember those numbers offhand. 7 Α I was here, I believe, when they stated those numbers. 8 9 And these numbers that you used were just an 0 assumption on your part? 10 An assumption on my part in that based on what we 11 А 12 now know in one of our service areas that's considerably down hill, so to speak, elevation about 3500, the average 13 consumptive use for the area is about 135 gallons per day 14 per connection on the average. 15 So, that's based on 2.8 people per connection. 16 17 So, with that, this is a high number, the 50 gallons per capita per day for overnight visitors. I believe at 18 19 that kind of elevation, that's assuming everybody has dinner 20 and takes showers and things like that, which probably isn't 21 the case necessarily in this tourism area. Do you feel comfortable with those? 22 Q 23 Α I feel comfortable that those are on the high side. On the high side? 24 0 Yes, sir, but not unreasonable. 25 Α MR. LAVENDA: I have no other questions. 26 MR. STUBCHAER: Okay, thank you. 27 28 Any redirect examination? 29 MR. GALLERY: No redirect. All right, we will consider 30 MR. STUBCHAER: acceptance of the exhibits. Are there any objections? 31 MR. SOMACH: Yes, Mr. Stubchaer, I object to 32 Exhibits 1 through 6 on the basis that there was no 33 foundation at all laid with respect to those exhibits. 34 I also object on the same basis to Exhibit No. 21, 35 36 no testimony, no foundation at all. I also object to Exhibit No. 12 and 12-A as being 37 38 legal arguments or policy, and No. 15 as being a policy 39 statement. 40 Finally, I renew my objection to Exhibit No. 18. No party testified to the truth of the statements contained 41 42 within that document. Moreover, it was a surprise document that was submitted without any prior notice or warning to 43 44 any party.

MR. GALLERY: Mr. Stubchaer, I will respond. 1 First, Exhibit 18, I understood Exhibit 18 was admitted into 2 evidence at the time. Is that not your recollection, Mr. 3 4 Somach? MR. SOMACH: I have actually no idea. 5 I said I was renewing my objection for the record, in any event. I know 6 there have been some rulings on these exhibits prior to this 7 time. 8 9 MR. STUBCHAER: Exhibit 18 was admitted. 10 Mr. Gallery, going back to the objection of Mr. Somach to exhibits 1 through 6, let me run through 5. Our 11 12 documents from that pertain to the FERC license and these documents have been filed by the PG&E, the holder of the 13 license, and they illustrate in various ways --14 MR. STUBCHAER: I think those are in the public 15 record and haven't been testified to, so the weight may be 16 17 less than would be given had they been testified to. I am talking about 1 through 5. 18 19 MR. GALLERY: Are you asking for testimony as to 20 My understanding is that documents from the public those? 21 records are admissible. MR. STUBCHAER: And we are receiving them. 22 23 MR. GALLERY: Now, Exhibits 6-A and 6-B are certified copies of the official survey plats of Silver Lake 24 in 1877, bearing the official record stamp of the Bureau of 25 Land Management, and depict the actual existence of a 300-26 acre Silver Lake in 1877. 27 28 It seems to me to be admissible beyond any question. 29 MR. STUBCHAER: I think they are admissible, but Ms. Katz will give a statement on the weight given to some of 30 these exhibits at the conclusion. 31 MR. GALLERY: I know of no better way to show the 32 presence of Silver Lake in 1877 than the official government 33 34 survey. MR. STUBCHAER: Right. 35 36 MR. GALLERY: Then, with respect to Exhibit 5, which is the testimony of Amador County Supervisor, Chairman 37 D'Agostini. I think she is stating the concerns of the 38 County with respect to El Dorado's application, and --39 MR. STUBCHAER: I believe it is acceptable even 40 though it may be part policy statement. There have been 41 similar instances with other presentations and it will be 42 admitted. 43 44 MR. GALLERY: All right. Then we come to Exhibit --I think Mr. Somach's last objection was Exhibit No. 12. 45

Exhibits 12 and 12-A. 1 MR. SOMACH: 2 MR. GALLERY: I'm sorry. The testimony of Mr. Hahn, County Counsel -- well, as Mr. Hahn testified, he has been 3 4 visiting Silver Lake for many years and well knows the conditions up there, and testified as to his own concern and 5 need for protective conditions. And I think in and of 6 itself that's sufficient for the admission of his testimony. 7 He also addressed the adequacy of the EIR and I 8 9 think that this Board, in passing on this application, has to be advised as to whether or not the EIR is adequate. 10 Т believe that you have got to be satisfied as to the adequacy 11 12 of the EIR, and if you find that there is any --MR. STUBCHAER: Well, we will respond to that right 13 14 now. 15 MS. KATZ: Regarding the adequacy of the EIR, as I mentioned at the beginning of the hearing, that is not 16 17 relevant to this hearing. By law, we must assume it is adequate until or unless a judge rules otherwise. 18 19 We have certainly taken notice that there are 20 lawsuits pending regarding its adequacy, but to the extent that Mr. Hahn, or anyone else, and there has been some other 21 testimony submitted with comments regarding the adequacy of 22 23 the EIR, but that is not relevant. To the extent that anyone's testimony concerns that, 24 it is not relevant, but if it is included in other documents 25 that have been admitted, that's okay. It just goes to the 26 weight, and certain things we just ignore. 27 With all due respect, I feel the Board 28 MR. GALLERY: 29 -- it's true that legally you must accept it as an adequate document, but I think in making your decision you have to be 30 satisfied that there are adequate mitigation measures set 31 forth in there and you are not bound by what the applicant 32 thinks is adequate mitigation or what the applicant thinks 33 34 is adequate capacity. The Board can undertake it's own review in its 35 36 responsibility as the responsible agency, and the Board will 37 do that. 38 MR. STUBCHAER: What we are talking about right now I will rule that this will be accepted, 39 is the admission. 40 but the portions that are not applicable will have very little weight. 41 42 MR. GALLERY: And then, we come to Amador County Exhibit 21, which is the Board's 1988 decision on the El 43 44 Dorado application for temporary permit. I was a little disturbed that various relevant applications that are in the 45

Board's piles were made a part of the record by the staff, 1 2 but that here we had a 1988 permit by El Dorado for some emergency water that was not made a part of the Board's 3 4 staff exhibits. It seemed to me it should have been from the 5 beginning, but it wasn't, and so, my thought was first to 6 offer the entire record pertaining to this application and 7 permit into evidence at this hearing. But I didn't. 8 I was only offering the Board's order itself, which discusses the 9 problems that El Dorado was having five years ago with 10 adequacy of supply with its then population and its need for 11 12 additional water, and I thought that was pertinent to the question of whether its estimated future needs which will 13 not begin for another five years, and then rise gradually --14 I thought it was pertinent. 15 MR. STUBCHAER: We can certainly take note of our 16 17 own order and we will accept it. It's already in our own records. 18 19 MR. SOMACH: There is a difference between accept and take judicial notice of it. Just in comment, and I know 20 21 you have ruled, but if I could be heard --22 MR. STUBCHAER: Yes, you may. 23 MR. SOMACH: With respect to Exhibits 1 through 6, as well as this last Exhibit 21, the problem, of course, is 24 that each one of those exhibits are based upon certain or 25 are developed based upon certain facts, certain 26 circumstances, certain issues. 27 28 This last exhibit is the classic example of that, by 29 not having any testimony and just having Mr. Gallery argue its relevance. There is no foundation, there is no nexus 30 between whatever is in those documents and that's the crux 31 of the objection that I raise here. I just want to make 32 sure that the record reflects it. It makes it impossible to 33 It makes it impossible to really understand cross-examine. 34 anything other than the argument that Mr. Gallery has made 35 36 with respect to those documents. 37 MR. STUBCHAER: I see your point and it has a 38 certain amount of merit. I am going to ask Ms. Katz to read a quote from a section of our rules on procedure regarding 39 40 the weight given to the evidence. MS. KATZ: To the extent that those documents are 41 hearsay, I will read from our regulations which are 42 contained in Title 23, found at Section 761(d) evidence. 43 Ι 44 will read it in its entirety:

The hearing need not be conducted according 1 2 to the technical rules relating to evidence and witnesses. Any relevant, non-repetitive 3 4 evidence, shall be admitted if it is the sort of evidence on which responsible persons are 5 accustomed to rely on in the conduct of serious 6 7 affairs. Hearsay evidence, which some of this is, may be used for the purpose of 8 9 supplementing or explaining any direct evidence, but shall not be sufficient by itself 10 to support a finding unless it would be 11 12 admissible over objection in civil actions. There is some more that doesn't apply. 13 Is that the key point? MR. STUBCHAER: 14 MS. KATZ: Yes, but regarding hearsay evidence to 15 the extent that it has not been testified to, and that there 16 17 is nothing else to use with it, it is really of no consequence, but it's certainly admissible. 18 19 MR. GALLERY: We think it is highly relevant for 20 the reason it is describing what conditions are existing up 21 there and I don't think anybody can reasonably quarrel with 22 that. 23 I think Mr. Somach's premise is that nothing is going to happen up there, so whatever is there is there, and 24 I take it he thinks there is no need to hear any evidence 25 pertaining to that, but that's where we digress, of course. 26 We believe --27 28 MR. STUBCHAER: I gathered that his objection is 29 that he hasn't heard the evidence, so he can't cross-examine on the evidence. These are exhibits which have been 30 submitted, but not testified to. 31 MR. GALLERY: Well, we view them as akin to being 32 official documents. Exhibit S, which is on file and which 33 is apparently part of the FERC license, we consider that to 34 be an official government record and these other documents 35 36 are of the same nature. MS. KATZ: Official documents are admissible. 37 We 38 can also take notice of them, and again, most of these objections go to the weight to be given this stuff, and just 39 because it is admitted doesn't mean that it is something 40 that the Board can rely upon or should rely upon, or can 41 legally rely upon, so there is a difference between 42 accepting something into evidence and what we do with it 43 44 once we have gotten it.

MR. GALLERY: I certainly hope that the Board will 1 2 have no question about the authenticity of the documents that are from PG&E's FERC license. 3 4 MR. LAVENDA: They are part of the file. Mr. Stubchaer, could I ask Ms. Katz a 5 MR. JACKSON: 6 question? 7 MR. STUBCHAER: All right. MR. JACKSON: Ms. Katz, as I understand it, the 8 9 document in question is an official Board order. MS. KATZ: Right. 10 And clearly, that's an exception to MR. JACKSON: 11 12 the hearsay rule in any court in California that I know of. Our own records are that it is clearly not hearsay because 13 it is an exception, the Official Records Act. 14 MS. KATZ: Yes. 15 MR. JACKSON: So, it is probative. 16 17 MS. KATZ: I wasn't arguing that we shouldn't accept 18 it. 19 MR. JACKSON: But you were talking about its use. 20 MR. STUBCHAER: She didn't say it was hearsay. 21 MS. KATZ: We have a lot of documents here. All right. 22 MR. STUBCHAER: 23 MR. LAVENDA: Mr. Stubchaer, before we leave this issue, I would like to clarify for the record Amador Exhibit 24 No. 20, conditions proposed by the County of Amador, 25 proposed to whom for what purpose? 26 27 Is this an agreement between Amador and El Dorado, 28 of what is it? 29 MR. GALLERY: No, Mr. Lavenda, these are the conditions that Amador proposes as necessary to protect 30 Silver Lake. We are submitting them to the Board as 31 conditions we think are necessary for the permits. 32 33 MR. STUBCHAER: Thank you. Staff, do you have anything more before we excuse 34 35 this panel? 36 Okay, thank you very much. Before you leave, if you are leaving, you need to get back to the Sierra Club Legal 37 Defense Fund Exhibit No. 12, the Declaration by the County 38 39 Surveyor. 40 Does anyone object to receipt of that exhibit into evidence? All right, we will receive it under the terms 41 outlined by Mr. Somach. 42 43 MR. VOLKER: Thank you. 44 MR. STUBCHAER: We will take a 12-minute break and return about five after three. 45

(Recess) 1 2 MR. STUBCHAER: We will come back to order and 3 continue the El Dorado water rights hearing. 4 The next party to give testimony is Mr. Paul Creger, but I understand there may have been a switch reached by the 5 parties. Is that right? 6 MR. JACKSON: Yes. Mr. Creger said it would be okay 7 if Friends of the River put on their panel to make sure we 8 9 got it over. MR. STUBCHAER: That's hearsay unless he is in here. 10 MR. JACKSON: He went to work on his material. 11 12 MR. STUBCHAER: All right, go ahead. MR. JACKSON: Mr. Stubchaer, I believe that two of 13 the witnesses have not been sworn. 14 (The witnesses were sworn.) 15 MR. JACKSON: Mr. Stubchaer, as a matter of house-16 17 keeping, we also have a handout, like everybody else. It is a summary of the testimony of Steve Evans for Friends of the 18 19 River. 20 MR. STUBCHAER: Do you want to assign a number to it, Mr. Jackson? 21 MR. JACKSON: Mr. Evans, was that to be a 22 23 substitution for your original testimony, or in addition? MR. EVANS: It is in addition. 24 MR. LAVENDA: 1-A. 25 1-A, I believe. MR. JACKSON: 26 I believe it would be useful, Mr. Stubchaer, if I 27 28 would make a short opening statement which will be attached to our time limit here. 29 First of all, Friends of the River is the largest 30 group of people involving protection of the river in the 31 32 State of California. 33 The main part of our testimony will be directed toward the Lotus reach of the South Fork American River, 34 which is the single-most popular, and in many ways, the most 35 important white water rafting river in California. 36 We believe that the EIR correctly identifies the 37 38 effects of this project on white water rafting. 39 Our evidence will show that 100,000 people use this 40 every year and that the major problem with this particular project is that it will divert water above the area of the 41 Lotus reach. The 17,000 acre-feet goes out before it comes 42 into the PG&E powerhouse in Chili Bar. 43 44 The individuals who are testifying are experts in their field, and with no further ado, we will get to them. 45

STEVEN L. EVANS, 1 2 having been sworn, testified as follows: DIRECT EXAMINATION 3 4 by MR. JACKSON: Mr. Evans, is Exhibit No. 1-A a true and correct 5 0 rendition of your testimony and qualifications in this 6 regard? 7 That's correct, particularly in terms of the 8 Α 9 qualifications in my original submitted testimony, and I did not repeat that in my summary. 10 Mr. Evans, would you state your complete name and 11 Q your occupation, sir. 12 Steven L. Evans, Conservation Director of Friends of 13 Α 14 the River. Mr. Evans, would you summarize your testimony, 15 Ο 16 please. 17 It can be broken down into three general areas, the Α first of which deals with the implied federal water rights 18 19 associated with federal protective designations, primarily 20 wilderness and wild and scenic rivers. 21 Lake Aloha and Pyramid Lake are located in the Desolation Wilderness areas. Caples Creek and the Silver 22 23 Fork American River flow through the Caples Creek wilderness area, which has been recommended for wilderness designation 24 by the U. S. Forest Service. Caples Creek and the upper 25 South Fork American River have been determined eligible for 26 National Wild and Scenic River status by the U. S. Forest 27 28 Service in recognition of the wild trout values of Caples Creek and the outstanding recreation and historic values of 29 the upper South Fork. 30 Pyramid Creek is currently under study by the Forest 31 Service in regard to its wild and scenic potential primarily 32 as a result of an out-of-court settlement with Friends of 33 the River. 34 The BLM is expected to assess the wild and scenic 35 36 potential of the Lotus reach of the lower South Fork landmanagement planning process. 37 38 Wilderness and wild and scenic designations carry an implied federal water right associated with the natural 39 40 values which the special designation is intended to protect. We believe that the acquisition of water rights for 41 the El Dorado project should be conditioned to protect the 42 implied federal rights associated with the special natural 43 44 values of the downstream wilderness, recommended wilderness area in the downstream stretches of the reach, which is 45

eligible for wild and scenic, and for which Congress will 1 2 eventually be considering whether they should be designated. The second issue is one of the South Fork being a 3 navigable waterway and protection of the public trust 4 values. The South Fork American River is clearly a 5 navigable waterway within the context of Title 10, Section 4 6 of the California Constitution. 7 White water recreation on the South Fork is clearly 8 9 a public trust value in the context of the Constitution. 10 The El Dorado project will impact this value by establishing a permanent low flow schedule and by reducing 11 12 the period of flow an average of 40 minutes per day, as we have heard from the applicants' testimony. 13 This will reduce the potential for increased white 14 water boating and degrade the quality of the current 15 experience as well as increase the potential for stranding 16 17 and accidents. 18 Recreational boating on the South Fork should be 19 enhanced by the El Dorado project as beneficial use under 20 California's public trust doctrine. We believe there should 21 be a condition on their application. This can be accomplished by restricting the project's diversion to the 22 23 lower practicable point which is the Folsom Reservoir and by establishing an optimum flow schedule, not a minimum flow 24 schedule, for private and commercial boaters, again 25 considering that white water recreation is as much a 26 beneficial use for water in El Dorado County as, say, 27 28 filling swimming pools in El Dorado Hills. 29 The third point in my testimony concerns waterways and conservation. According to the County's own EIR, their 30 31 current water system sustains a systemwide loss of approximately 27 percent. The EIR maintains this loss will 32 be reduced to 15 percent by the year 2010. Nevertheless, 33 they are applying here today for considerable additional 34 water rights. 35 36 The EIR also states that the County's water conservation program consists of public awareness efforts, 37 38 corrosion control, water meter repair and replacement, and correction of system losses. 39 40 We believe that additional water conservation measures should be required as part of their water rights 41 acquisition. Friends of the River is a signatory to the 42 Memorandum of Understanding regarding conservation in 43 44 California dated September, 1991, what we call the Urban Water Conservation MOU. 45

1 This MOU is a current statewide standard for water 2 conservation and was adopted by the State Water Board as a condition of the Draft Decision 1630. 3 4 Many of the best management practices which are to be implemented under the MOU are evidently not part of the 5 El Dorado County water conservation program, at least they 6 are not listed in the EIR. And some of these best 7 management practices include incentive programs, plumbing 8 9 improvements for new and existing homes such as flow restriction devices, landscape water conservation 10 requirements, commercial and industrial water conservation, 11 12 and ultra-low flush toilet replacement. El Dorado County and the El Dorado Irrigation 13 District should be required to sign the MOU and implement 14 its best management practices to conserve water as a 15 condition of its water rights acquisition. 16 17 In addition, the County and the District should be 18 directed to increase efforts to significantly reduce system 19 losses before acquiring new sources of water. 20 Thank you. 21 MR. JACKSON: The next witness is Nathan Rangel. 22 NATHAN RANGEL, 23 having been sworn, testified as follows: DIRECT EXAMINATION 24 25 MR. JACKSON: by Mr. Rangel, is Exhibit No. 2 a full and complete and 26 0 true copy of your testimony in this regard? 27 28 А Yes, sir. 29 Would you give us your full name, summarize your Ο expertise and summarize your testimony. 30 Certainly. My name is Nathan Rangel, R-a-n-g-e-l. 31 Α I am President of the California Outdoors, an association of 32 48 professional river outfitters in California. 33 In addition, I am the California representative and 34 member of the Board of Directors of America Outdoors, a 35 36 nationwide association of 300 professional outfitters. I have been a resident of Coloma and El Dorado 37 County since 1982. My wife and I established our river-38 outfitting company Adventure Connection on the South Fork of 39 the American River in 1982. 40 Through our rafting business, I estimate that we 41 have facilitated river trips for approximately 30,000 people 42 on the South Fork, contributing something in the area of 7 43 44 million dollars to the local economies, not to me necessarily, but to the local economies. 45

I have been a member of the State River Advisory 1 2 Task Force since 1986 and was a member of the El Dorado County River Management Advisory Committee from 1985 to 3 4 1992. I am currently a member of the California Parks and 5 Recreation Commission. 6 I have reviewed the final EIR of the El Dorado 7 County water program and the El Dorado project, particularly 8 9 the document's treatment of the river flows in this South Fork American River. 10 It is my professional opinion as an outfitter as 11 12 well as a recreational boater that the proposed flow schedule delineated in the EIR, page 6-21, is an acceptable 13 minimum and I emphasize minimum flow schedule for drought 14 It is not a reasonable flow schedule during normal 15 years. or high water years. 16 17 In my opinion, the optimum normal or high water year flow for boaters in all kinds of levels of experience in the 18 19 lower South Fork American River is approximately 1750 cubic 20 feet per second. 21 He highest proposed flow in the final EIR schedule is 12000 cubic feet per second, which is only 68 percent of 22 23 this optimum flow. Boaters can do with less than 1750 cubic feet per 24 second, but only by sacrificing quality of recreational 25 experience. As stated in the FEIR, the proposed flow 26 schedule maintains the current volume of rafting 27 28 particularly on weekend days important to commercial 29 outfitters. The schedule provides no additional flows for future growth in the rafting industry, particularly on 30 31 Sundays or weekdays. In addition, as a resident, taxpayer and business 32 owner residing in El Dorado County, I am troubled about the 33 document's reliance on PG&E and SMUD to make even the 34 minimum flows outlined in the FEIR. 35 36 I believe that since El Dorado County is acquiring 20,000 acre-feet of water for beneficial use in the County, 37 one of those beneficial uses should be to provide optimum 38 boating flows on the South Fork of the American River. 39 40 Commercial and private boating on the South Fork attracts, we believe, somewhere in the area of 30 million 41 dollars in economic benefits annually to the rural economy 42 of El Dorado County. Maintenance and growth of this clean 43 44 industry is not possible without permanent assurance of

optimum flows to protect navigation and public trust values 1 2 for current and future users. The water proposed for acquisition in the FEIR can 3 be conjunctively used simply by allowing it to flow down the 4 South Fork into Folsom Reservoir. It can then be pumped 5 from the reservoir to meet the County's growing consumptive 6 7 needs. Use of the lowest point of diversion would also 8 9 eliminate possible reimbursement to PG&E and SMUD for possible hydro generation losses caused by the County's 10 proposed upstream diversions, El Dorado Canal and White Rock 11 12 diversion. I urge the Water Resources Control Board to 13 condition the County's request for water rights from Caples, 14 Silver and Aloha Lakes by establishing an optimum, not 15 minimum, flow schedule. Actually, what I really urge would 16 17 be both an optimum and a minimum be established on the South Fork of the American which meets the current and future 18 19 needs of commercial and private boaters. 20 I believe this can best be done by using water 21 conjunctively; that is meeting boaters' needs and flows down the South Fork to Folsom and diverting it at that point. 22 23 I also feel, quite frankly, that conservation efforts needs to be more emphasized as Mr. Evans pointed 24 25 out. As a resident of El Dorado County, I support the 26 need and I want to make this point, that we do support the 27 28 need for the County to acquire additional water supply and, 29 in fact, I have given testimony indicating our support of this project, but we do want to make sure we can do that 30 without sacrificing the needs of the folks who utilize that 31 resource on a daily basis. 32 Mr. Rangel, when you indicated that we agree with 33 0 34 this project, you are speaking for whom? When I say, we agree, I am speaking for the 48 35 Α 36 professional river outfitters on the South Fork of the 37 American River. Not Friends of the River? 38 Q Not Friends of the River. 39 Α 40 MARK CHARLES TAYLOR, having been sworn, testified as follows: 41 DIRECT EXAMINATION 42 MR. JACKSON: 43 by 44 Q Mr. Taylor, give us your full name, please. Mark Charles Taylor. 45 А

And is your testimony as found in Exhibit 3 your 1 0 2 true and accurate testimony in regard to this issue? It is. 3 Α 4 Q Would you summarize that testimony, sir. I am a private rafter and own a white-water 5 Α equipment store in San Rafael. I am also a part-time 6 residence of El Dorado County. 7 Over the past five years, as a volunteer guide for 8 9 Friends of the River, I have personally guided and/or accompanied approximately 2,000 private boaters down the 10 river. Private rafting is probably the fastest growing 11 12 segment of the river use on the South Fork American, and the proposed low flow schedule in the FEIR, pages 6 and 21, will 13 make such rafting significantly less safe and less 14 enjoyable, and I think would ultimately end up resulting in 15 less use by private rafters. 16 17 The private rafter does not have the logistical support that an outfitter does. They have to come a one-18 19 to-three-hour driving time and to set up and organize their 20 transit around the river by themselves. So, with a three-21 hour window of water, it could lead to numerous people being stranded on the river, increased accidents due to compacting 22 23 of traffic, jamming of the boats. 24 Once an accident occurs, generally the boats have to back up behind -- it is like an accident on the freeway. 25 Ιf the water was dropping and there were 60 or 70 boats caught 26 at a certain spot on the river, you might have several 27 28 hundred people trapped overnight on the South Fork American. 29 I, like Nathan, would like to see -- ultimately this would end up in reducing the economic value to the county of 30 such recreational use of the river. I, like Nathan, would 31 like to see a minimum optimal flow established and I also do 32 endorse or agree with Nathan that the best beneficial use is 33 conjunctive use where the water is allowed to flow down the 34 river for the recreational use and the economic value of 35 36 that, and then taken from Folsom and used in El Dorado 37 County there. 38 Mr. Taylor, what is the difference to an individual Q who is running the river if 40 to 50 minutes is cut off the 39 40 amount of time daily when there are peak flows? Isn't that 40 to 50 minutes the average? 41 А 42 0 Yes. I guess what I am trying to say is that if you have 43 Α 44 a short window, you have to hurry your trip down the river.

Your margin of safety goes down because the river is lower, 1 2 there is more damage and wear and tear on the equipment. Basically, an average flow reduction doesn't give 3 4 the indication of what it is on a specific case. It kind of washes over the impact. 5 Have you been present on the river when the water 6 Q 7 dropped? 8 Α Yes. 9 What happened? 0 Well, what happened is more people get hung up. 10 Α There is, obviously, less water for the crafts to navigate 11 12 and so there's more likelihood a boat is going to get stopped, more likelihood that the passengers are going to be 13 closer, there is going to be less padding over the riverbed, 14 the rocks, more likelihood of injury, and hence, the 15 stoppage of traffic flow down the river. 16 17 Obviously, with lower water there is more likely to be damage, scraping, tear on expensive white water equipment 18 19 which also could lead to a traffic jam as such on the river, and conceivably what has happened -- what has happened to me 20 21 when the water has dropped is that we had to get out of the boats and walk the boats down the river. 22 23 Once again, six or seven people hiking a raft down the river is going to be potentially more hazardous and 24 slower than going down on a flow. 25 Mr. Evans, what is the significance of the Mountain 26 0 Democrat article that is Exhibit 4? 27 28 MR. EVANS: A The significance is that it shows the 29 County's own figures on recreational use on the South Fork American River. It demonstrates that the County has records 30 31 of 77,000 boaters during 1992, a drought year, a low flow year, and it splits that use up between commercial and 32 private use, 44,000 user days of commercial use and 33,000 33 user days of private use, and also, notes that that 33,000 34 days of private use represents an increase of 9 percent, 35 36 again during a drought year, which indicates private boating is increasing even during a drought year, and is likely to 37 38 become the major factor in overall increased boating on the South Fork. 39 40 Now, keep in mind that the low flow schedule published in the FEIR greatly restricts flows during 41 weekdays which are the primary growth area for private 42 boaters who tend to not only stay away from boating on 43 44 weekends because of the congestion, but as I am sure Nathan would verify, the river is pretty much maxed out on weekend 45

days. It's difficult to fit another boat in, so the growth 1 2 in boating on the South Fork tends to be on weekdays, and that's when the flow schedule in the FEIR is most 3 4 restrictive timewise. Mr. Evans, calling your attention to the impact that 0 5 has been identified as significant in regard to white water 6 rafting, would there be an impact to the present white water 7 rafting if El Dorado water was stored in Folsom Reservoir 8 and not taken above Chili Bar? 9 If the lowest diversion point practical was used, 10 Δ which I assume is Folsom Reservoir, that will allow that 11 12 water to flow down the entire stretch of the South Fork into the reservoir, and therefore, it would be available for 13 recreation, not only boating, but fishing and other water 14 15 uses. So, we feel that's very important. we submitted in 16 17 our comments in the EIR that we felt that the County's consideration of the Folsom diversion alternative was very 18 19 lightly considered and was thrown out for no real reason 20 that we could find in the EIR as not being practical for some reason, and we felt that was an alternative that should 21 be looked at in more depth. 22 23 In addition, I think I remain confused as to how the EIR treats the flow issues in the Lotus reach and the impact 24 on recreation. At one point it identifies the flow 25 reduction as a significant impact. In the very next 26 paragraph it says if the flow schedule management by PG&E 27 28 and SMUD could be restructured, it could be reduced to a 29 less than significant impact, and in my mind, that means changing PG&E's and SMUD's FERC license, which seems to be a 30 big question as to whether that is needed here or not, or is 31 feasible. 32 33 Then further on in the list of impacts and 34 mitigation it says that impacts on white water recreation is a significant impact. 35 36 So, it's a very confusing document. They seem to at least touch on those points, but I don't think they have 37 38 gone in depth, as Mr. Rangel and Mr. Taylor pointed out. They haven't fully considered the true impacts of both the 39 40 reduction in time and the reduction in flows on private and commercial boating. 41 42 MR. JACKSON: Thank you. That concludes our 43 testimony. The individuals are available for cross-44 examination.

We would withdraw Exhibit No. 5, the testimony of 1 2 David Fullerton, which when we went over, until this week he was unable to appear. 3 4 MR. STUBCHAER: Then you are going to offer the other exhibits into evidence, and I will rule on that after 5 cross-examination. 6 MR. JACKSON: 1-A, 2, 3 and 4. 7 MR. STUBCHAER: Who wishes to cross-examine this 8 9 panel? 10 Mr. Somach. CROSS-EXAMINATION 11 MR. SOMACH: 12 by Mr. Evans, your testimony talks about implied 13 Q federal water rights. You are a lawyer? 14 MR. EVANS: No, I am not. 15 You appear to mix wilderness and wild and scenic 16 0 17 river related water rights. Can you explain whether or not there is a distinction between the implied federal water 18 19 rights associated with wilderness areas and those associated with wild and scenic river designations? 20 To my knowledge, Congress is currently wrestling 21 Α with the issue of wilderness water rights. Everybody agrees 22 23 there is an implied water right to the federal wilderness In fact, it's become a major political issue 24 designation. 25 as to whether or not certain wilderness areas are designated in the Rocky Mountains in Colorado. 26 27 So, it seems to be at least to my professional 28 knowledge dealing with federal land management and everybody agrees that there are implied wilderness water rights. 29 Again, to my professional knowledge as someone who is 30 primarily employed by Friends of the River to monitor 31 federal land management agencies and encourage them to 32 conduct wild and scenic river studies, I can state that the 33 Wild And Scenic Rivers Act does not affect current water 34 rights, the rights in the law. 35 36 I can't recall the specific section, but I do know it is in there. However, there is an implied water right to 37 designated streams in that if you diverted water upstream of 38 a designated segment, you obviously could impact the very 39 values for which that river was designated. In fact, 40 Section 10-A of the Act mandates the protection of 41 outstanding values, not just in the designated segment, but 42 43 from activities upstream or downstream which could affect 44 that segment.

The Wild and Scenic Rivers Act, however, doesn't 1 0 deal through implication; does it? It acts through specific 2 statutory language; isn't that correct? 3 4 Α I believe so, yes. So, it is then improper to blend whatever the Wild 5 0 and Scenic Rivers Act specifically provides for and the 6 implied federal water rights that you talk about in 7 paragraph number 1 of your testimony; isn't that correct? 8 9 I am not sure you are saying -- would you rephrase А it, please? 10 They are different things? 11 Q 12 А Essentially what I am saying is federal protection of downstream acreage and rivers requires the maintenance of 13 certain instream flows to protect natural values. That's a 14 definite in both the Wilderness and Wild and Scenic Rivers 15 Acts. 16 17 Let's stop and probe that. You state that as if it 0 is an absolute imperative; is that correct? 18 19 А Oh, yes. 20 Are wilderness water rights something different than 0 21 federal reserved water rights? I don't know. 22 А 23 Q Do you know whether or not the U.S. Supreme Court decision in the New Mexico case out of the Rio National 24 Forest applies to this situation? 25 I don't know. 26 А 27 So, you don't know whether federal reserved water 0 28 rights are the same type of water rights that apply in the 29 context of wilderness areas? MR. JACKSON: I have let this go on a bit because 30 Steve did testify to some of these. Obviously, we are going 31 to do that in closing argument. We will be glad to lay out 32 federal reserved water rights in both areas. 33 34 I mean, I can answer the question. MR. SOMACH: This was submitted under oath and 35 36 subject to cross-examination. 37 MR. STUBCHAER: You may answer the question. 38 Α Okay, restate it, please. MR. SOMACH: Q Actually, I can't restate it. 39 (The reporter read the question as follows: So 40 you don't know whether federal reserved water 41 rights are the same type of water rights that 42 apply in the context of wilderness areas?) 43 44 No, I have just read and heard the context of Α wilderness water rights as an implied federal right. I 45

don't know if it is the same thing as a federal reserved 1 2 water right. With respect to the public trust issues covered in 3 0 4 your paragraph 2, this is the same public trust doctrine that the California Supreme Court established in the so-5 called Mono Lake or Audubon case; is that correct? 6 I believe so. 7 Α And that public trust doctrine requires a balancing; 8 0 does it not, of public trust values versus other reasonable 9 beneficial uses of water? 10 I believe that's correct. 11 Δ 12 0 I am not sure which of the two folks, Mr. Taylor or Mr. Rangel, I should address this to, so I will address it 13 to both of you. 14 In terms of dry years, I don't understand exactly 15 your testimony, but in dry years, is it your understanding 16 17 that El Dorado will modify the flows provided for currently by SMUD and PG&E under their agreements? 18 19 MR. TAYLOR: A Modified for rafting? I am not sure of your testimony. Are you testifying 20 0 21 they will make a modification to the existing flows during 22 dry years on the river, or the agreements with respect to 23 flows in dry years? I am confused by the question. 24 Who will? А El Dorado. 25 0 MR. RANGEL: A My biggest concern was that I felt 26 comfortable with the flow schedule as presented as a minimum 27 28 flow schedule. As I pointed out in my testimony, my concern 29 was there was not an optimum flow schedule, and that is testimony I also gave before the board, El Dorado County 30 Water Agency board. What I was hoping to see was something 31 that would stipulate an optimal flow schedule within the 32 context and with the understanding also they are working 33 with two other entities that may or may not have much 34 control or ability to control flows. It's a very 35 36 complicated situation. With respect to El Dorado, it's in the El Dorado 37 Q 38 project that if that project doesn't develop any new water, no new storage facilities upstream, how can it add water to 39 what is already flowing through the system? 40 I'm not asking it to. 41 А 42 0 What are you asking it to do then? I am asking that the Water Resources Control Board 43 А 44 ask El Dorado County as a condition of the water rights permit, that they stipulate an optimal flow schedule, that 45

they strive to the best of their ability to stick to when 1 2 there are years that would allow such a flow schedule. In other words, the flow schedule as stipulated only 3 4 deals with a minimum. Minimum is fine. I have problem with minimum. Minimum is great. We have lived with the minimum, 5 but I don't want the minimum to be taken as the only flow 6 schedule that's in writing. It makes me a little nervous to 7 only see the worst case scenario presented or put forth on 8 9 I would like to see a best case also. paper. 10 But in order to move toward a best case scenario, 0 doesn't one have to have some control over the total amount 11 12 of water flowing through the system? What you are suggesting, I think, is that what 13 Yes. Α I am asking would be impossible for the Water Agency to do. 14 Well, maybe unilaterally impossible. I assume there 15 Q is a scenario out there where SMUD, PG&E and El Dorado get 16 17 together and somehow decide to reoperate all the facilities to provide more flows down the Lotus reach, but the question 18 19 I am posing is what do you propose that El Dorado does 20 unilaterally with respect to the Lotus reach in order to 21 increase flows? I don't think I am looking for an increase in the 22 Α 23 Lotus reach. What we have had over the last ten years has been pretty good. We have had excellent cooperation with 24 PG&E and SMUD, and the County when it's been involved in 25 terms of flows and flow schedules. We are real happy with 26 27 that. 28 What we are looking for is something in writing that 29 puts out those best case scenarios so we are not just operating on a gentlemen's agreement on a day-to-day basis. 30 31 People change, people come and go. We have had an excellent working relationship up to 32 this point, but we don't want to be put in the position of 33 having somebody down the line 10 or 15 years from now 34 saying, well, this is the flow schedule, 1200 is all you 35 36 get. That would make me nervous in a series of years when we had enough water where we could do something with it 37 38 beyond the 1200. Mr. Evans, just a couple of final questions to you 39 0 40 wish respect to the public trust issue. Is it your testimony that the flow schedule associated with rafting is 41 the natural flow of the Lotus reach of the river? 42 MR. EVANS: A No, it is not. 43

And, in fact, that flow is basically there during 1 0 2 the important rafting months because of releases from the PG&E and SMUD facilities; isn't that true? 3 4 А Are you talking about the flow schedule in the EIR or just the normal flow schedule that the river experiences 5 now, the usual flow schedule as opposed to normal? 6 Let's use the usual flow schedule, the normal 7 Q historic flow schedule. 8 9 That flow schedule is the consequence of existing upstream PG&E projects, but you should understand that it 10 has taken a seasonally rafted river and extended the season 11 12 throughout the summer which has contributed, in fact, to its value as white water recreation river because there is more 13 time for people to use it. 14 What we are concerned with in this project are 15 upstream diversions that would impact that use. 16 17 Impact the use that is afforded by the operations of 0 SMUD and PG&E facilities? 18 19 А That's correct. 20 So, the impact is built within the benefit provided Ο by the SMUD and PG&E facilities? 21 The benefit is not wholly associated with those 22 А 23 projects. Again, it enhanced that benefit, but that benefit 24 was there prior to the dams being built, dams, diversions and powerhouses being built on South Fork. 25 Well, but we just focused on this recreation period 26 0 here and I thought you indicated that there was some 27 28 enhancement during that period. 29 Right. А And the impacts we are talking about here fall 30 Q within the ambit of that benefit; is that correct? 31 32 Correct. А 33 MR. SOMACH: I have no other questions. 34 MR. STUBCHAER: Staff? 35 EXAMINATION 36 by MR. LAVENDA: Mr. Evans, in your Exhibit 1-A, your oral testimony, 37 Q 38 item 3, water waste and conservation, you mention that Friends of the River is a signatory of the MOU regarding 39 40 conservation,. MR. EVANS: A That's correct. 41 42 0 That's used as a model supposedly for purveyors throughout the State of California. You alluded to 15 43 44 percent loss and the applicants' testimony, I believe

Exhibit 45, would be a proper place to find the numbers to 1 2 substantiate your direct testimony on item 3. May I ask you a question, as a signatory of that MOU 3 4 for a system to be built between now and operating in the year 2030, do you have a feeling for what might be a state-5 of-the-art type overall system loss that would be 6 acceptable? 7 No, I don't. I do think it is shocking that 8 А 9 currently El Dorado County system loses more than a quarter of its entire yield, and I recognize a lot of that is due to 10 its antiquated system, and it has actually taken steps to 11 12 correct that, but the point I am making here is that if an entity is trying to acquire significantly new amounts of 13 water supply, they should first take steps to correct their 14 system losses. 15 Well, assuming they take steps to correct the 16 0 17 existing system losses, I am focusing on an advanced, perhaps state-of-the-art distribution system that 18 19 incorporates the items that you point out in this MOU for a 20 system to be built 30 or 40 years from now. What if your feeling about an acceptable loss rate 21 for a system in that time frame? 22 23 Α I don't have a feeling for it. Unfortunately, Mr. 24 Fullerton would have more background to answer that question, but he couldn't be here. 25 MR. LAVENDA: Thank you. 26 27 I just have one item. MR. STUBCHAER: In your 28 statement, Mr. Evans, you state that the MOU was adopted by 29 the Water Board as a condition of D-1630. Since D-1630 wasn't adopted, the MOU was not adopted. 30 MR. EVANS: A That's correct. A condition of draft 31 32 D-1630. 33 MR. STUBCHAER: It wasn't adopted. 34 Do you have any redirect? 35 MR. JACKSON: No. 36 MR. STUBCHAER: All right. Any objection to the 37 receipt of the States? 38 Hearing none, they are accepted. Thank you. 39 The Amador Chamber of Commerce is not appearing, but 40 their written material will be accepted as a policy statement. Amador Chamber of Commerce's written exhibit 41 will not be testified to, but they will be a policy 42 statement. 43 44 Yes, Mr. Gallery.

MR. GALLERY: We were informed that they were unable 1 2 to be here today. The Chamber of Commerce did plan on appearing, but they could make it in the morning. Would it 3 4 be possible if you are going to be here in the morning to give them an opportunity to appear and testify in support of 5 their submittal? 6 MR. STUBCHAER: What was the source of staff's 7 contact with Amador County with their making a policy 8 9 statement, the Chamber of Commerce? MS. KATZ: A Terry somebody called. 10 MR. GALLERY: That was today, Ms. Katz? 11 12 MS. KATZ: Yes. MR. GALLERY: We called them this afternoon and 13 they said they couldn't make it today, they could make it in 14 the morning if the hearing was still going on. 15 MR. STUBCHAER: The only party we have remaining is 16 17 Mr. Creger. He asked for 15 minutes, so I anticipate we will complete this afternoon, so I wouldn't want to hold it 18 19 open in the morning just for that. MR. GALLERY: We wouldn't ask you to. We were only 20 assuming it was continuing in the morning. 21 22 MR. VOLKER: Mr. Stubchaer, may I inquire about 23 rebuttal evidence? We anticipate calling one witness in rebuttal and we assumed that would take place tomorrow 24 25 morning. MR. STUBCHAER: Is that person here today? 26 MR. VOLKER: 27 No. 28 MR. STUBCHAER: We will see when we get through with Mr. Creger's testimony, how much time remains. 29 Mr. Creger, please state your name and address for 30 31 the record. MR. CREGER: May I ask two administrative questions 32 first for clarification? 33 MR. STUBCHAER: 34 Sure. MR. CREGER: At the end of Amador County's session 35 36 up here the subject was being discussed about EIR rules and guidelines, and you didn't need a certified EIR to proceed 37 38 with these hearings and that sort of thing. MR. STUBCHAER: I don't think that was said. 39 When 40 it is certified it has to be accepted as valid until the court tells us otherwise. 41 42 MS. KATZ: True, we don't have to have an EIR to 43 proceed. 44 MR. CREGER: My question is, what kind of things are controlled by the EIR statutes and guidelines versus the 45

1 reference material that is in the EIR, that's in there for 2 understanding and use to the task? And a specific example, and the one I will be 3 4 addressing in my testimony, is I will be discussing gage data of the dams and again, datum to me is not an 5 environmental item, manmade or natural. It's a piece of 6 reference material that is put in there to make a picture 7 whole, and so, I am trying to understand it essentially 8 because the statements were made here that certain things 9 were judged under EIR rules and regulations and statutes 10 versus being judged under something else, and there was no 11 12 something else defined because that wasn't the subject. For example, since I am going to bring something up 13 that I do not believe is an environmental issue, is a part, 14 if you will, of the background of project information that 15 incidentally is supposed to be briefly described in the EIR. 16 17 Looking ahead, where does that fit in the rules and regulations of the hearing here? 18 MS. KATZ: I am not sure I understand the question. 19 20 MR. STUBCHAER: We heard during the testimony there 21 are three datum for the dam to determine the water level. 22 That's what you are referring to? 23 MR. CREGER: That type of thing, yes. 24 MR. STUBCHAER: And what we also heard was various storage volumes, and you can come up with the same values 25 having three different levels. I don't know if it is up to 26 an EIR to get to that level of specificity. 27 28 MR. CREGER: But that's the only place these data 29 are presented. MR. STUBCHAER: I don't think we are going to 30 31 resolve that here now. MR. CREGER: I presume things of that nature are not 32 in conflict with the EIR or the EIR rules, they've got to be 33 judged on some other --34 35 MR. STUBCHAER: You can present the evidence which 36 you have and we will consider that in weighing the evidence. MS. KATZ: Yes. 37 38 PAUL J. CREGER, having been sworn, testified as follows: 39 MR. CREGER: My second item is very brief and I 40 would like to read it. After participating in this hearing 41 42 for three days --MR. STUBCHAER: You haven't identified yourself yet. 43 44 MR. CREGER: My name is Paul Creger, C-r-e-g-e-r. MR. STUBCHAER: And your address? 45

MR. CREGER: I live at 501 Magnolia Lane, Santa 1 2 Clara, California, 95051. I am a retired Aerospace Systems Engineer and what I 3 am about to say, I would be happy to affirm the testimony is 4 mine that I have submitted. 5 MR. STUBCHAER: Well, what are you going to say? 6 Is this going to be a procedural question or testimony? 7 MR. CREGER: Procedural. 8 9 MR. STUBCHAER: Are you going to give testimony? 10 MR. CREGER: Yes, sir. Did you take the oath the other day? MR. STUBCHAER: 11 12 MR. CREGER: Yes, sir, a week ago. After participating in this hearing for three days, 13 it became obvious that my testimony which I related to the 14 key issues by reference, should have addressed them 15 directly. 16 17 I, therefore, have restructured this more to address the issues directly. 18 19 The basis for my testimony is unchanged from that presented in my protest and testimony dated May 18, 1939. 20 Ι 21 would like to have that approach essentially accepted today. MR. STUBCHAER: So you are offering your revised 22 23 testimony as a substitute for your original testimony? 24 MR. CREGER: Yes. MR. STUBCHAER: Was that distributed this morning? 25 I distributed it this morning. MR. CREGER: 26 All right. You asked for 15 27 MR. STUBCHAER: 28 minutes, I think. 29 MR. CREGER: Yes, sir. The revised method may take a tad bit longer, but it 30 31 won't be longer than anybody else has taken. MR. STUBCHAER: All right. I am going to start the 32 33 clock when you start anyway. MR. CREGER: I would like to identify just a few 34 items in my original testimony, and also, I would like to 35 36 state that there was no intent in my data and anything I have done to not address Lake Aloha. There just was not 37 38 enough time. Although my experience has not been directly 39 associated with water resources management, it has qualified 40 me to evaluate constructively the total scope of a project 41 42 program or system. Additionally, my experience has a depth of over 34 years in working with others to achieve common 43 44 qoals.

As members of the general public, my family and I 1 2 have vacationed at Silver Lake for 27 years. The applicant is proposing to expand its service 3 4 base incrementally without having fully committed resources. Fully committed resources include documented commitments 5 from the multitude of boards, agencies, departments, et 6 cetera, which form a part of existing State and federal 7 water and electrical power resource management teams. 8 9 Incremental expansion can only be acceptable to the general public when it is shown to be a fully coordinated and 10 integrated part of a mutually agreeable system. 11 12 Summary of my objectives for being here is to insure on behalf of the general public that the water could be 13 appropriated, it's available in the season requested, 14 available for the period of beneficial use requested, also 15 to present testimony on selected issues set forth in the 16 17 Notice of Public Hearing. 18 How will the proposed El Dorado project be operated? 19 Specific operating and contingency scenarios are undefined. By this, I mean detailed, not extremely detailed, 20 but detailed, what if operating scenarios for various system 21 configurations; what if operating scenarios for the various 22 23 delivery schedules; a detailed what if schedule scenario for 1983 water year similar to 1993. Do the same thing for 1993 24 25 after the Cleveland fire. Everybody would like to know what these operations 26 27 They are not detailed enough to allow any kind of are. 28 reasonable logical evaluation. A review of the FERC hydroelectric project 29 relicensing handbook makes it clear that relicensing is a 30 new ball game. Electric power, flood control, water supply, 31 navigation and irrigation are to be balanced against 32 33 environmental values and energy conservation. Contingency plans are totally absent. 34 Incremental permit issuance and project level imple-35 mentation effectively block any effort to analyze total 36 37 program operation. 38 How will the proposed El Dorado project be operated? Lake level stage gage zero point elevations as described in 39 the table named PG&E Lakes Significant Elevations on page 14 40 of Appendix A in the final EIR is incorrect, Exhibits PGC-3 41 and 4 and State Water Resources Control Board folder 8 File 42 43 29919 contain maps from the applicant identified as PG&E 44 Exhibits K-3 and K-4.

The purpose of this schematic sketch, Caples Lake 1 2 Dam and gaging station, is to indicate that on the righthand side is the PG&E Company datum and on the left side the 3 4 National Geodetic Vertical Datum of 1929. As you can see for the spillway crest the numbers are not the same. 5 There is a difference of 155.1 feet between the two numbers. 6 The EIR identifies the numbers from the right-hand 7 side as National Geodetic Vertical Datum of 1920; therefore, 8 9 we have a discrepancy. The same thing for Silver Lake. The correction of a 10 7 to a 9 in red is because --11 12 MR. LAVENDA: The previous slide visual that you had up there, could you please identify it for the record? 13 MR. CREGER: Yes, sir. I am sorry, that was PJC-4. 14 This is PJC-3 and the 9 was an error in reading the 15 reduced size of PG&E's exhibit. Again, note that the 16 17 elevations on the right are not the same as on the left. PG&E Exhibit K-3 and K-4 that have been submitted as 18 19 part of the data for this project each contain a note. The 20 one for Caples Lake reads: Elevations are on PG&E Company's 21 datum. Elevation 7953.0 PG&E equals elevation 7797.9 on 22 USGS. 23 So, this document identifies this particular 24 relationship as the spillway crest level. The same type of thing exists for Silver Lake except 25 it is a little more complicated getting to. The note on 26 this document reads: Elevation 7196.25 PG&E equals 27 28 elevation 7250.32 USC and GS. MR. LAVENDA: Mr. Creger, would identify that 29 30 document? 31 MR. CREGER: This is PJC-3 again. The document I was reading from is PG&E Exhibit K-3, 32 which is found in the files here that's been submitted by 33 the applicant. 34 The point of these four slides is that a difference 35 36 in datum does exist and of greater significance that in the EIR and Appendix A at the time of the El Dorado first 37 38 hearing on the final EIR, I presented similar information, not to PG&E maps because I did not have access to them at 39 40 the time; however, the conflict of datum was evident at that time and the response that gets no rebuttal, but the 41 42 response in the letter from Sierra Hydro-Tech to the El Dorado County Water Agency said that they examination of the 43 44 USGS reports and these PG&E data show that the information that was presented in the EIR is correct. 45

1 My effort here is to show you that it is not 2 correct. The next thing I have that may be supportive in this 3 4 area, and which would serve as corroborating evidence is two weeks ago approximately I was up at the area and on the dam 5 at Caples Lake near the spillway is this PG&E Company survey 6 marking of which this is a simulated facsimile, and at 7 Silver Lake the same type of marker is there. 8 9 I'm sorry, the first one was PJC-7. This one is PJC-8. 10 And just across the road at Silver Lake is a Coast 11 12 and Geodetic survey marker with no elevation marked on the marker itself, but by calling the number at the bottom in 13 Denver, I obtained the elevation shown at the top. 14 These three different numbers as far as elevations 15 go all are National Geodetic Vertical Datum of 1929 numbers, 16 17 so that I am showing here that PG&E knows where its dam is and the USGS knows where the big boulder across from Kay's 18 19 Store is next to Silver Lake and they are all based on 20 National Geodetic Vertical Datum. 21 In the process of trying to resolve this relatively simple technical problem, I have been contacting the USGS 22 23 several times in my trips through Sacramento here, and they 24 had indicated that there's a possibility there was a discrepancy, and in addition, or along with that, they would 25 certainly look into. That wasn't a high priority item. 26 When I asked them last Thursday to please provide me 27 28 the name of someone that I could subpoena to come and say 29 those things here, they found time to write a letter. Ι have submitted that as PJC-10, and I am the only one at this 30 31 point that has a number on it, and basically, I would like to read the letter -- let me read it in key elements. 32 It is written to the California State Water 33 Resources Control Board. It is dated July 18, 1993. 34 Ι 35 believe the reason for that is not only was there a computer 36 down, but their telephone system was down, and I didn't 37 receive this until about a quarter after four Friday. 38 (Reading) Gentlemen, Mr. Paul Creger has asked us to write you in 39 regard to the datums of gages on Silver and 40 Caples Lakes near Kirkwood, California. 41 42 I am going to skip some of this and jump down to: The records for these two lakes have 43 44 sufficient hydrologic value that, since the 1986 water year, the survey has opted to 45

publish the data in the survey document 1 2 entitled Water Resources Data for California, Volume 4, North Central Basins and the Great 3 4 Basin from Honey Lake Basin to the Oregon State line. 5 The published statements about datum read as 6 follows: 7 Datum of gage is 7184.3 For Silver Lake: 8 9 feet above National Geodetic vertical datum of 1929 (levels by Pacific Gas and Electric 10 Company). 11 12 For Caples Lake: Datum of gage is 7894.0 feet above National Geodetic Vertical Datum of 13 1929 (levels by Pacific Gas and Electric 14 15 Company). On June 17, 1993, Mr. Creger brought to the 16 attention of the Survey the fact that in 17 reality these elevations were above an 18 19 arbitrary datum established by PG&E and were not above National Geodetic Vertical Datum. 20 21 The Survey researched the matter and found 22 that Mr. Creger is probably correct. On such 23 short notice, the Survey cannot determine the true National Geodetic Vertical Datum. 24 Information provided by PG&E is not adequately 25 supported for us to accept their numbers 26 without further research. 27 28 According to information in the PG&E license 29 papers, the elevations above National Geodetic Vertical Datum for the datum of the two gages 30 31 are: Silver Lake 7130.23 feet. 32 Caples Lake 7737.94 feet. 33 The Survey will try to determine the correct 34 values and include them in future publications 35 36 of the data report, beginning with the publication for the 1993 water year. 37 38 MR. STUBCHAER: Your 15 minutes are up. How much more time will you need? 39 MR. CREGER: I believe I can go through the rest in 40 ten minutes maximum. 41 42 MR. STUBCHAER: All right. MR. CREGER: The thrust of this whole point is that 43 44 the datums are obviously different and that we have been asked to rely on the information in the EIR and the EIR has 45

been certified with these datum differences there. 1 The 2 differences have been explained in the letter from Sierra Hydro-Tech, but the concern on my part is basically the area 3 4 of essentially not disclosing this kind of information; and secondly, the basis for historical lake levels presented in 5 Appendix A of Tables A through F, in the final EIR is 6 unverified. 7 This came out in testimony the other day here, that 8 9 the data presented for lake levels is not totally taken from the USGS records, but a combination of data that has been 10 collected over the years from PG&E and other sources by 11 12 Sierra Hydro-Tech, and perhaps others, I don't know. So that the significance is that we are being 13 presented historical lake levels based upon unverified data, 14 and gage datums that are in all probability in error. 15 In fact, Mr. Chairman, if you wanted to, I think the 16 17 safest thing anybody could do would be to issue a permit for 100 percent of the water at Silver, Caples and Aloha, for 18 19 any season and for perpetuity that is located between the 20 lake stage at zero storage and the maximum water service 21 elevations specified in the table on page 14 of Appendix A of the final EIR, because if we grant them all that water, 22 23 Mr. Chairman, there is no water there. Are there measures that could be taken to assure 24 water could be diverted and used in the most efficient 25 manner? No baseline system goal exists for measuring 26 Improvement is being measured from an 27 conservation. 28 arbitrarily selected unacceptable condition. No trade 29 studies have been presented showing the selection of a realistic system goal. 30 31 Additional project works cannot be evaluated without a baseline operating system being defined. 32 By this, I mean that measurement, and I am not 33 taking anything away from El Dorado, that improvement is 34 being made and has been made; however, nothing has been 35 36 shown as to what is the maximum improvement. If things are being compared to conditions where you might say the 37 38 conveyance leaks like a sieve in the old days, and now they leak like a tea strainer, and we think we can achieve some 39 40 sort of a condition whereby they will leak less than a tea strainer, but nobody has started with the opposite side, 41 what is the best you could possibly do, what trade studies 42 have you made to examine the best you could possibly do and 43 44 find out it is not cost effective to do that, it is impractical, it has environmental problems, and then work 45

down to a goal, rather than working from the existing 1 2 condition up to some limit like 15 percent. Is there unappropriated water available at Silver 3 4 Lake, Caples Lake and Lake Aloha for the proposed El Dorado 5 project? The availability of unappropriated water has not 6 7 been addressed, much less proven. A recent item in a California Code of Regulations, 8 9 Article 23, stream systems declared to be fully appropriated, operative on 5/7/93, provides for procedures 10 for revoking or revising the status of stream systems 11 12 declared to be fully appropriated, for adding stream systems, for public participation. 13 I have added that only for the reason that it's new 14 and being it is a process by which fully appropriated 15 streams can be changed. I am not asking for an answer 16 17 instantly, but it seems to me to be proper to these hearings to identify whether t hat particular process has received 18 19 any activity, i.e., either request to change, because one of 20 the subjects I have heard in the meetings so far is that 21 certain things are fully appropriated, and this could change 22 them. 23 Is the proposed El Dorado project in the public 24 interest? Replacing multi-use hydroelectric power generation 25 with fossil or atomic fueled power generation, as I said, at 26 the bottom, I do not believe this is in the public interest. 27 28 The planned exchange, in time of emergency, of power generation, recreation, fish and wildlife resources, et 29 cetera, for consumptive use via the Hazel Creek tunnel is 30 31 not in the public interest. Issuance of a water right for perpetuity for one 32 project of a vaguely defined multiproject system is not in 33 the public interest. 34 To proceed with a program or program element or 35 36 project without an in-depth probability analysis that supports the assumptions based upon streamflow 37 38 reconstruction and tree-ring analysis is falling short of looking at the big picture. 39 40 Failure to address the condition of and a maintenance program for applicable elements of the total 41 program as they apply to the proposed El Dorado project is 42 43 not in the public interest. 44 By this, in my original testimony, I was concerned about reservoir spilling out. I think I heard today the El 45

Dorado forebay was 540,000 acre-feet, or some number like 1 2 that, and I believe it is more like 240 or 250 nowadays. What is going to happen to this total project? 3 We 4 are going to issue a water right for perpetuity and nobody has even discussed essentially the general degradation is 5 power use continuing to be cost effective? 6 MR. STUBCHAER: Mr. Creger, you have three minutes 7 left on the extended time, and looking at your written 8 9 submittals, we don't need to read them into the record. They are in writing. They are part of the record and if you 10 could get to your conclusions and recommendations and 11 12 summarize, I think that would help. MR. CREGER: All right, sir. 13 Should Applications 29919 through 29920 be approved? 14 The finance, growth data, that have been presented 15 as the basis for this have not been proven or shown to be 16 17 applicable to this project. I don't believe data of this nature can be accepted at its face value and say, therefore, 18 19 because they said, we should. Provision of an affordable water supply within the 20 21 EID is only possible at the expense of others. Appendix C of the final EIR does not reflect the 22 23 current state of application maturity. 24 The applications to be approved have not been 25 disclosed. We have only seen in the EIR some older original applications and they are not in a completed state. 26 Applications 29919 through 29922, Application item 3 27 28 is points of diversion and rediversion, and item 7 is Item 3 in Application No. 29921 does not 29 diversion works. contain the Hazel Creek tunnel rediversion that can be used 30 to restore water. I don't know whether they don't need it 31 or whether it just is an oversight, or whether it is in the 32 later versions. 33 34 The basic theme of these applications and the supporting EIR is trust me. The errors, omissions and 35 36 conflicting information identified to date leave serious doubt that more do not exist or will not be present in 37 38 anticipated agreements yet to be made. Approval at this time does not appear to be the 39 prudent thing to do. 40 MR. STUBCHAER: One minute. 41 MR. CREGER: Should the petition for partial 42 43 assignment of State filed Application 5646 be approved? 44 The applicants have indicated, by filing Applications 29919 through 29922, that a diversion season 45

from November 1 to August 1 can support the proposed El 1 Dorado project. They have indicated that both the petition 2 and the applications can provide the 33,000 acre-feet. 3 4 Approval of the petition carries with it a season of January 1 to December 31, and since the season from November 5 1 to August 1 can meet their needs, there is no 6 justification for extending the season three months. 7 The petition for partial assignment of State filed 8 9 Application 5645 should not be approved. 10 MR. STUBCHAER: Your time is up. MR. CREGER: You are really going to cut it that 11 12 short, sir? MR. STUBCHAER: I had asked you to speed up. 13 Ι granted you ten additional minutes and I suggested you not 14 read the slides into the record because we have them in 15 writing, and you continued to read them. 16 17 I will give you three minutes to summarize, but please get to your final conclusions, if you would, and we 18 19 have the written materials. They are part of the record you 20 have testified to. As a member of the general public, my 21 MR. CREGER: purpose in being here is primarily based on becoming aware 22 23 of the situation that is being discussed, the water rights that are being asked for, and not being associated with this 24 process as my regular daily activities, I find it utterly 25 inconceivable that a water right to be granted for 26 perpetuity can be considered to be granted with all of the 27 28 total unknowns that are existing with respect to agreements, 29 what FERC can or will not do in the relicensing process. Ιt just chokes you up and slows you down to say, is this really 30 31 happening? There's got to be a better way. In the slides before us that I did not show, I 32 suggest that perhaps a condition of a permit, God forbid it 33 should be granted, but a condition of that permit is to have 34 representatives from all of the affected groups that are 35 36 normally consulted with to meet together around the table and address this issue technically, if you will forgive me, 37 leave your attorneys home for a few days, and identify what 38 really is going on and what would make this work. 39 40 I am not against the El Dorado having water. I am for it if it is there. But we are not participating in an 41 effort that is going to determine that. Somebody is going 42 to win the argument. Somebody is going to lose the 43 44 argument. We are all going to lose if that happens. Thank you, sir. 45

MR. STUBCHAER: Thank you, Mr. Creger. 1 2 I want to say you did a beautiful job in preparing 3 your slides. I am just sorry that the time expired. 4 Who wishes to cross-examine Mr. Creger? MR. SOMACH: I just have a question. 5 I don't know 6 if Mr. Creger offered himself as an expert witness or not. 7 MR. CREGER: Am I to say something? MR. STUBCHAER: You may go back to the podium, if 8 9 you wish. 10 MR. CREGER: Yes, sir. MR. STUBCHAER: I don't recall either. Were you 11 12 offering yourself as an expert witness in any of these matters? 13 MR. CREGER: Expert from the point of view of being 14 a retired systems engineer and believe I understand a 15 reasonable amount about the technical data. I am able to 16 17 comprehend the technical data that has been prepared and make some presentations related to technical data. 18 19 MR. STUBCHAER: I think your statement of qualifi-20 cations was submitted. MR. CREGER: 21 Yes. MR. STUBCHAER: So, I guess the answer is yes then. 22 23 MR. SOMACH: I just have a few questions. CROSS-EXAMINATION 24 MR. SOMACH: 25 by Mr. Creqer, do you have a degree in hydrology? 26 0 No, sir. 27 Α 28 Q Have you taken course in hydrology? 29 Α No, sir. Do you have a degree in civil engineering? 30 Q 31 Α No, sir. Are you a registered civil engineer? 32 0 33 No, sir. Α 34 Are you an expert in the procedures undertaken by 0 the Federal Energy Regulatory Commission? 35 36 Α No, sir, but I can read their books. 37 Have you ever participated in any Federal Energy 0 38 Regulatory Commission proceeding? Not yet, but I will. 39 Α Q The answer to that question is no? 40 No, sir. 41 Α 42 MR. SOMACH: I don't have any other questions. MR. STUBCHAER: All right. Mr. Creger, do you wish 43 44 offer your exhibits into evidence? 45 MR. CREGER: Yes, sir.

MR. STUBCHAER: Have you assigned numbers to those? 1 2 MR. LAVENDA: We have, Mr. Stubchaer, and staff has been provided copies of the latest exhibits with the 3 4 exception of 7, 8 and 9, I believe, which are the monument replicas that were introduced. We have the others. 5 MR. STUBCHAER: How did you duplicate or replicate 6 Was that a computer drawing program? 7 those monuments? MR. CREGER: No, sir, it happens to be a Microsoft 8 9 desk top publishing program. I created them from taking videos of these markers at the dams at Silver Lake, and if 10 time wasn't a problem, you could have seen all that in 11 12 living color. MR. STUBCHAER: All right. Are there objections to 13 the receipt of these exhibits? 14 MR. SOMACH: Point of clarification, I guess. I 15 understand the Board's rules to separate evidence into 16 17 expert evidence and lay evidence, and I would object to this evidence and testimony as being introduced as expert. 18 19 Mr. Creger isn't an expert in any of the areas that 20 he testified to, and if there's a distinction, and I believe 21 there is, in the regulations, I think they must come into 22 play at this point to segregate the nature of testimony and 23 what it is being offered for. MR. STUBCHAER: All right. Mr. Creger, your evidence 24 will be considered as lay evidence and not as expert 25 evidence, but it will be accepted into the record. 26 27 MR. CREGER: Thank you. 28 MR. STUBCHAER: Mr. Lavenda, did you have any questions? 29 MR. LAVENDA: No, sir, I didn't. 30 MR. STUBCHAER: That concludes the direct testimony 31 32 in this case. Save the American River Association is not here. 33 How many parties intend to present rebuttal 34 35 evidence? 36 One party. As I look around this room, I know I could see \$3,000 an hour, and if your witness were here 37 38 today, we could hear him this afternoon and conclude this 39 hearing. Is there any way you could present his evidence by 40 declaration or anything like that, or would that be 41 42 acceptable to the parties? 43 Could you perhaps come up and show good cause why we 44 should hold the hearing on another day to receive rebuttal evidence? 45

MR. VOLKER: Well, 1 the testimony is in the nature 1 2 of rebuttal testimony to evidence presented during the hearing, obviously. Because it is rebuttal, we were unable 3 4 to prepare in advance of the hearing. We retained the expert who would present this testimony on Friday afternoon. 5 MR. STUBCHAER: Would you care to tell us what part 6 7 of the testimony he is going to rebut? This would be rebuttal to the testimony MR. VOLKER: 8 9 that the growth projections employed by the applicants in developing the parameters for their project, the water 10 demand, that they assumed would exist and would have to be 11 12 supplied through this project were predicated on the Department of Finance growth projections, and further, that 13 the general plan in preparation in El Dorado County 14 replicated those Department of Finance growth projections. 15 We would propose to present testimony indicating the 16 17 Department of Finance growth projections are not in themselves an adequate basis for a growth projection under 18 19 the circumstances and that the El Dorado planning process does not adopt, cannot be expected to adopt the Department 20 of Finance growth projections as is. 21 I think this Board needs to weigh the need for this 22 23 project against its potential adverse impacts. If the need is not as great or as well documented as has been suggested 24 by the applicant, then obviously, less weight would be given 25 to the need for the project relative to its adverse effects. 26 MR. STUBCHAER: What is your witness's name? 27 28 MR. VOLKER: Ms. Terrell Watt. She is a planner. 29 MR. STUBCHAER: Is there anyone else who wishes to comment on this matter? 30 MR. SOMACH: Yes, Mr. Stubchaer. 31 The testimony that we provided was provided early on 32 last week, number one. Number two, the testimony we 33 provided was in our written submissions of May 18. 34 Moreover, it was all part and parcel of the 35 36 applications and EIR that was provided both at that date and 37 prior to that date. 38 There is absolutely no information they intend to rebut that they haven't known for at least a month, if not 39 40 more. Anyone seeks to be ready to go when the hearing is It could be anticipated that we would finish today. 41 over. 42 In fact, these are extra days, that originally the hearing was called for Monday, Tuesday and Wednesday, and if needed, 43 44 it would go further, so as a consequence, requiring everyone to come back here tomorrow because Mr. Volker didn't have a 45

witness here, who he could have anticipated would have been 1 2 called today, there is just simply no reasonable excuse for that, number one; and number two, the idea he didn't know 3 4 this testimony was going to be offered just simply doesn't hold up when we consider how long the basic issue of 5 population demands has been on the table as a fundamental 6 aspect of what was being proposed by the project proponents. 7 Well, it wasn't until the cross-MR. VOLKER: 8 9 examination Monday that it became apparent that there was no documentation for the growth projections other than this 10 apparent reliance on the Department of Finance growth 11 12 projection. When it became clear that was the sole basis for the applicants' projections of water demand, it became 13 clear that this was something we would have to rebut. 14 MR. STUBCHAER: That was not clear from the written 15 submittals before the cross-examination? 16 17 MR. VOLKER: We understood that the growth projections were based on a calculation of growth based on a 18 19 specific history in El Dorado County based on the somewhat 20 obsolete general plan, which as I indicated, has a 1963 21 circulation element. 22 Now we have learned that it's apparently based 23 solely on a Department of Finance projection of growth. MR. STUBCHAER: 24 I am going to ask the applicants to look in the record and see if there is information there 25 that indicates that that was the basis for the population 26 projection. 27 28 MR. SOMACH: Appendix A to the Draft EIR --29 MR. STUBCHAER: The draft? MR. SOMACH: Yes, and if I could draw your attention 30 to the Appendix, and then in particular, if you take a look 31 at the very top of the Appendix on A-4 where the reference 32 right there is to the State of California Department of 33 Finance projection and how population projections beyond 34 that were based. 35 36 MR. STUBCHAER: All right. Excuse me, I just want to read in context. This is Appendix A, background 37 38 information on EID population and water demand projections. 39 It just goes down and explains exactly MR. SOMACH: 40 how each projection was made. MR. STUBCHAER: This talks about the City of 41 42 Placerville. 43 MR. VOLKER: May I be heard on this point? I think 44 page A-3, which has been referenced, makes clear our point.

In discussing the El Dorado Irrigation District east 1 2 side and west side population projections for 2010 --MR. STUBCHAER: Where on page A-3? 3 4 MR. VOLKER: It is the ultimate paragraph, the second from the last. It indicates El Dorado Irrigation 5 District's east side and west side population projections 6 for 2010 are based on projected market growth in accordance 7 with the schematic land-use plan developed by SCA for the El 8 9 Dorado 2010 general plan, et cetera. 10 So, we had understood that was based on a planning process, but we heard testimony that indicated; no, it was 11 12 based on the Department of Finance growth projections. I think our testimony is properly rebuttal evidence. 13 MR. STUBCHAER: Mr. Somach, do you find any other 14 reference other than the City of Placerville, to the 15 Department of Finance population projection? 16 17 MR. SOMACH: If you look, for example, again, at the Draft EIR 3-1, we talk about population projections. 18 19 We have a reference, again, to the California Department of Finance projections. 20 21 MR. STUBCHAER: That's historic. 22 MR. SOMACH: You are asking me, and I --23 MR. STUBCHAER: It's very difficult, but nonetheless, unless I can find evidence of population --24 MR. SOMACH: Okay. Just give me a moment. I can't 25 find the references at this point. Nonetheless, you know, 26 this testimony was presented on Tuesday in its entirety. 27 I 28 mean, I don't understand -- it had to come out of cross-29 examination with the El Dorado witnesses. That took place on Tuesday. This is Monday afternoon of the week after 30 31 that. 32 I still don't understand the reason for the surprise or the fact that they couldn't provide this until tomorrow 33 morning. 34 It troubles me, Mr. Volker, because MR. STUBCHAER: 35 36 we might get to a certain point in the hearing where it inconveniences all the parties to the hearing. That does 37 38 trouble me. I see your point about not knowing about this, 39 however, until it came up in cross-examination, so you 40 couldn't begin that rebuttal a month ago. 41 42 MR. VOLKER: It wouldn't have helped if I had been able to predict when the direct would have ended, but had I 43 44 been able to predict that, our witness would not be ready until tomorrow. I was in another hearing on Thursday and 45

1 Friday in Susanville and I was unable to attend to this 2 myself. I was here all day Tuesday and Wednesday. We did 3 4 the best we could to identify somebody. She worked over the weekend and thought she would be ready by tomorrow, is the 5 best we could do under the circumstances. 6 7 I apologize. I don't want everyone to come back 8 tomorrow. 9 MR. STUBCHAER: If you don't want everyone to come back, can the parties suggest a way to handle this without 10 reconvening the hearing, including myself? 11 12 Ms. Katz, I don't know if that's possible. MR. VOLKER: I would be happy to offer her testimony 13 ion a declaration, and if there is a request from the 14 applicants to file a response declaration, we would 15 stipulate that is appropriate. We would waive cross-16 17 examination of their declarant if they would waive it of 18 ours. 19 MR. SOMACH: That's fine. 20 MS. KATZ: If they agree. 21 MR. STUBCHAER: All right. MS. KATZ: 22 Is there anyone else out there who has 23 anything to say? MR. STUBCHAER: I looked around the audience when I 24 25 asked. MS. KATZ: It's like speak now or forever hold your 26 If you think you might want to be cross-27 peace, folks. 28 examining one or both witnesses, now is the time to speak 29 up. 30 MR. GALLERY: We would only like to get copies of the declaration. 31 MR. STUBCHAER: They will go to all parties. 32 33 All right, thank you. MR. SOMACH: Now, my understanding of that 34 stipulation was Mr. Volker was going to file with the Board 35 36 with copies to the parties a declaration or affidavit of this testimony by Monday. 37 38 MR. VOLKER: That's fine. MR. SOMACH: 39 And we would have a reasonable time to respond also in declaration or affidavit form. 40 MR. STUBCHAER: Could you specify a time? Is ten 41 42 days enough time? 43 MR. SOMACH: Ten days would be enough time. 44 MS. KATZ: That's ten days -- I want to clarify --

MR. SOMACH: From Monday, from the day I receive it, 1 2 which I expect will be Monday. MS. KATZ: Steve, you will submit to the Board and 3 4 all parties no later than a week from today, Monday? MR. VOLKER: Yes. 5 That declaration. 6 MS. KATZ: 7 MR. VOLKER: Yes. MS. KATZ: Ten days from next Monday, a week from 8 9 today, ten days hence you will respond however you want to 10 respond. MR. SOMACH: Yes. 11 12 MR. STUBCHAER: If he wishes to respond. MS. KATZ: To Mr. Volker, with copies to the Board 13 and other parties. 14 To the Board and copies to the parties. 15 MR. SOMACH: 16 MS. KATZ: Okay. 17 MR. STUBCHAER: All right. Are there any additional 18 exhibits that we haven't covered? 19 MS. KATZ: Yes. Save the American River Association 20 submits theirs as a policy statement. MR. STUBCHAER: We will accept Save the American 21 River Association's submittals as policy statements. 22 The 23 same thing for the Amador County Chamber of Commerce. 24 Any others? 25 MR. CREGER: I have a question. I believe I missed the boat, but I have got to ask. I believe I ran across 26 some minor discrepancy between Mr. Bowman's and Mr. Reeb's 27 28 testimony which they were adding to the information some 29 additional exhibits which was what they were reading in their summaries, and I believe I passed the time I can say 30 anything about it. 31 MR. STUBCHAER: You passed the time. You are 32 permitted to submit closing arguments and you could mention 33 in there, if you wish, anything you didn't get the 34 35 opportunity to say. 36 As I said, all your beautiful view foils are in the 37 record. 38 The administrative hearing record for this hearing will remain open for 30 days to receive the expected 39 40 agreement between SMUD and El Dorado, and to receive any CEQA document which may be prepared relative to that 41 agreement. It will require SMUD and El Dorado to provide 42 copies of the agreement and CEQA documents to the Board and 43 44 to all parties pursuant to the instructions contained in the Notice of Hearing. 45

After the expiration of the 30-day period, on July 1 2 21, all parties will have an additional 20 days to submit any written legal briefs or closing arguments. 3 Such 4 arguments may be in the form of a legal brief. However, that format is not required. 5 Persons may also submit written policy statements 6 7 prior to the close of the record. After this 50-day period expires on August 10th, the 8 9 administrative hearing record for the El Dorado hearing will 10 close. To repeat, SMUD and El Dorado have until July 21 to 11 12 submit their agreement and CEQA documents. All parties have until August 10th to submit closing arguments and policy 13 14 statements. MR. GALLERY: Do we have some reasonable assurance 15 that there will be a transcript available by July 21? 16 17 THE REPORTER: I certainly hope to have it done by 18 the 21st. 19 MR. STUBCHAER: The Board will take this matter 20 under submission. All persons who participated in this hearing will be sent notice of any Board action on this 21 matter and will receive a copy of the Board's decision. 22 23 I want to thank you all for your interest, 24 cooperation and participation in this hearing. 25 This hearing is adjourned. (The hearing was adjourned.) 26 27 28 29 30 31 32 33 34 35 36 37 38 39