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STATE OF CALIFORNIA

WATER RESOURCES CONTROL BOARD

WATER RIGHTS HEARING ON

PERMITS 11308 AND 11310

JOE SERNA, JR. BUILDING

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

COASTAL HEARING ROOM, SECOND FLOOR

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EXHIBITS

PROCEEDINGS

CHAIRPERSON DODUC: Good morning, everyone. I think we're ready to resume. Two minutes early. I guess I should wait.

Please take a moment right now and put your mobile devices on vibrate, silent, or off, if you can handle being off.

When we adjourned yesterday, we had completed the direct of Dr. Hanson and Ms. Baldrige.

And so now I will begin the cross-examination with Reclamation. Does the Bureau wish to cross?

MS. AUFDEMBERGE: No.

CHAIRPERSON DODUC: All right. I assume Mr. O'Brien.

MR. O'BRIEN: My colleague, Mr. Marsh, has a couple questions.

CROSS-EXAMINATION

MR. MARSH: Good morning.

If I may perhaps ask Mr. Lindsay if he could bring up one of the exhibits from yesterday. I don't know if those are still available. It was one of the charts related to Santa Ynez.

SUPERVISOR LINDSAY: Whose PowerPoint was that?

MR. MARSH: It was Dr. Hanson's. Thank you.

Good morning. Thank you for coming back here

this morning.

Dr. Hanson and Ms. Baldrige, I have a few questions as follow-up to some of the testimony you heard yesterday and to your cross-examination questions.

First, there was a lot of concern paid to the low adult returns in the Santa Ynez River. And I was wondering if you could explain a little bit further what those adult returns have been and what those mean for the overall population.

MS. BALDRIGE: Well, from an anadromous perspective, we haven't had a whole lot of anadromous fish returning. We had 16 fish in one year that came back into the system.

I think what we've been focused on in the Santa Ynez is really trying to promote the growth of the juvenile fish in the spawning habitat. We've been opening up in the system, tributaries and the watering of the upper part of the Santa Ynez River right by Bradbury Dam. So we've been looking at how are we able to grow fish and those growth habitats that are coming back from fish that are coming in from the ocean and also fish in the resident life form there in the river.

And it's important that we're able to produce juveniles that can turn into adults and go out to the ocean and come back.

I think I mentioned yesterday it's very difficult to know whether a juvenile fish that you're looking at is anadromous or not, even when they show what we call smoltification characteristics. Those fish can actually go down the river and end up residualizing and staying home.

And then you can have other fish that will adopt smolting characteristics as they go downstream. So since we don't really know the fates of some of those juveniles, we try to monitor what comes back in the adult world. But it takes time to develop a population.

MR. HANSON: The other point to make is that -- I think Dr. Trush made this point -- when these juveniles migrate from the Santa Ynez into the coastal marine waters, they're then subject to a number of other population level stresses, predation, food supply, ocean productivity. So there are a variety of factors both within the control of what can be done in the basin, but there are also a number of factors outside the control that influence the population dynamics and the subsequent number of adults that return.

Some of the other factors we discussed yesterday are things like the growth rate within the river, the life history diversity of the species that's rearing within the watershed. Those types of attributes are also important

to the rebuilding process for the numbers of adults that subsequently return.

MR. MARSH: Would you say this is necessarily unexpected so early in the implementation of the biological opinion in the Fish Management Plan?

MR. HANSON: No, I don't think it's unexpected. Most programs if you start with a habitat that -- back in the early '90s when we first started working on the river, there was literally no water in many of the areas that were potentially good steelhead habitat.

It takes time to then implement the kinds of actions that are required. Takes time to design and implement fish passage facilities. It takes a number of years for those in-stream flows to create habitat conditions that are more suitable for the fish, including the propagation of riparian vegetation along the margins. It takes time because these anadromous fish rear for a period of one or two years typically in the fresh water environment, but then they rear for a period of two or three years in the ocean. So there is a built-in lag in terms of the time required for a given generation to go through that process, much less the propagation of multiple generations. So it is a rebuilding process.

And it's recognized in much of the restoration literature that it will take a number of years or decades

for that rebuilding process to occur. In the NMFS recovery plan, they discuss the importance of things like the decadal oscillation and ocean conditions as an important factor as well. And that's part of the foundation for their assessment that it could take 80 to 100 years to fully take advantage of the kind of habitat restoration actions and the other actions that are being done within the basin to fully recover these populations.

MR. MARSH: So in other words, eight or ten years may not be enough to measure success or failure?

MR. HANSON: Eight or ten years gets you I think information on the ability to effectively start to open up some habitats. Gives you some better information on the ability to implement these restoration actions and get them on the ground. It doesn't give you a sufficient time to really fully assess the performance of the program. But you can get some early indications that are we at least seeing trends that are promising in the right direction.

MR. MARSH: Are you seeing those trends?

MR. HANSON: I think we are. I think we are in terms of we're seeing reproduction within these new areas, not new areas, but areas that have now been made accessible. They're suitable. We're seeing juvenile rearing in those areas. We're seeing evidence of

migration of both upstream adults as well as downstream migrating juveniles. We're seeing growth within these various areas. So we've got good indications.

The graph that's up here is Figure 1 from my testimony. And this shows our estimates of standing stock for juvenile and some adult O. mykiss in the area of Hilton Creek and the main stem to Alisal. That's the primary area that's influenced by releases from the dam. This does not include habitat in Salsipuedes Creek and other creeks that are tributary to the Santa Ynez and producing fish. But these are the kind of data that we watch to be able to say are we seeing a promising trend and is this in the right direction.

MR. MARSH: Are you familiar with any other systems in Southern California?

MS. BALDRIGE: Well, we have several systems where we started some restoration activity. The Ventura River, which is south of us, is where we installed the fish ladder and have been monitoring the populations there.

I think that our populations are probably a little ahead of those populations down there in Ventura from the information that I've seen. I don't think we have information on any other Southern California stream the way we do on the Santa Ynez. This is really the --

this is the system that everybody turns to for looking at information on Southern California steelhead, and this information was incorporated into the NMFS Recovery Plan and other documents that have come out of this. They've told us it's the best data set they have.

MR. HANSON: I think another couple of aspects. One is this program has the advantage that it's been in place almost 20 years in terms of the data collection and thinking about these kind of actions, which is ahead of most other restoration programs in Southern California.

The other thing to consider, though, is Southern California in this particular population segment is on the southern boundary of its geographic range. The environmental conditions throughout the Southern California area are highly variable and in some case very harsh for steelhead in terms of flows, hydrologic condition, water temperatures, those kinds of factors. So we're learning a lot about that aspect as well in terms of the Santa Ynez system. So it's not only that we're ahead of it in terms of having implemented a number of actions, but I think we're ahead of the curve in that we've got almost a 20-year period of monitoring to better understand some of those processes and how to best address them.

MR. MARSH: Now when you say 20 years of monitoring or 20 years of a program, that does not

necessarily include implementation of measures that are in the Fish Management Plan or Biological Opinion; is that correct?

MR. HANSON: That's correct. That basically goes back to 1993 which was the period when Jean and I were both asked to come down to the watershed, begin collecting some samples, collecting some data, working with others in the community to try to start the formulation of what then ultimately transpired into the development of the Fish Management Plan, which occurred in the late 1990s. And then subsequently, the Biological Assessment and Biological Opinion right around the turn of the century, 2000. And then subsequently as we've moved through the process, the FEIR alternatives and some of the other actions.

MS. BALDRIGE: I think the important thing to remember, too, when you look at where we are with implementation, we've implemented the full program in 2005. That's when we had the long-term releases and we also had the passage supplementation. Before then, we're building into implementation and we're still working on completing our passage tributary fixes in the basin. So as you look going forward, we've been taking actions that have been increasing things. But the program in the main stem really didn't get underway until 2005.

MR. HANSON: The other aspect of that is through the monitoring, we're identifying not only the promising trends that we talked about earlier, but we also identified some areas that can be refined and improved. And we're factoring that into the program as well as part of an ongoing process.

MR. MARSH: And this segways perfectly into my next question. That is there was a lot of testimony yesterday about implementation of the Biological Opinion and specific natures in the Biological Opinion, including some of the exceedances of take. I'm wondering if you could explain a little bit further what has been done to actually implement the Biological Opinion since mid 2000s.

MS. BALDRIGE: Well, if you look at the graph up there on the implementation, the implementation of Biological Opinion was issued in September of 2000. The year before that, we had gotten in the preliminary Hilton Creek watering system. So '99, we started watering Hilton Creek.

In 2004, we were able to finish off the radio gates that allowed the water to be stored in the passage supplementation account. And it also increased the yield for the project to provide for some in-stream flows that we were releasing.

And then if you look -- we started the long-term

releases then we actually started in 2005. And then we have first opportunity to use the passage supplementation program in 2006.

We also had a passage fix in Hilton Creek that occurred in 2005. And with the latest watering system, we were able to water another probably third of a mile of stream there. So we were able to increase the length of area that we were watering as well as removing the passage barrier that was there. So 2005 was a big year for us, I guess.

And those are kind of the actions that we're taking in the upper river. We continued our tributary enhancement program. We have a number of projects that have been completed in Salsipuedes and Quiota Creek. Quiota Creek is the one we're continuing to work on. We have a little bit more to do there. But last year, we were able to remove the full passage barrier that was in Hilton Creek, what's called the Keystone Barrier. So now fish do have access to the entire reach. There's two more passage barriers that provide partial wattages of habitat in Quiota Creek that are the focus of our ongoing work.

So through each year, we've tried to take advantage of the opportunities that we have with grant funding and project design money to move our project forward.

MR. MARSH: Again, there was some testimony yesterday about the take exceedances as well as take that was expected to occur in the Biological Opinion. Can you explain or tell me what does that mean to the overall population and what were those takes?

MS. BALDRIGE: We have had a number of take. We have sort of take that comes with just a handling of the fish. And that's included in the trapping mortality, take that's granted to the project. So the allowances for juvenile fish per year in one adult fish.

In our estimation of the record of our take, we've never exceeded the juvenile take. We've taken 16 juvenile fish through the entire period. We have exceeded take in the trapping program on two occasions with adults. We had two adults that came in 2001 that were killed and then 2006. Now when I say killed, all of the fish that we have found of floated dead into the nets. So we've not killed -- we have not had any fish expire during the handling, but delayed stress can cause mortality. We found one anadromous adult that was washed down into our trap. It had already spawned. And it's the only anadromous adult that was collected in the program was that one fish that floated into the trap.

So but never the less, the take for adults through the period has been eight fish. We've had another

take that occurred I think it was mentioned yesterday when there was a down ramping of a storm release. And so we lost some fish there. Those were predominantly juvenile fish that were lost at that time. And I believe there were twelve of them that we were able to locate.

MR. MARSH: I believe you testified yesterday that you believe some of this take is because of the increased numbers.

MS. BALDRIGE: Well, the take for the trapping is because of the increased numbers. The take for the twelve fish and the three fish were really accidental mortalities associated with operations. And for each of those times where we had accidental mortality for operations, there's been a plan or program put in place to avoid that take in the future.

So for example, when we have ramping criteria that now are followed by reclamation for whenever they down ramp the flows. And for the Alisal take, we have a program that has a feedback loop in it so that we know exactly where the water is. And we have a release program to avoid having flows drop at Alisal. So each time there's been that. But if you look at the overall take in comparison to the population numbers that we have, it's a very small proportion of the fish that have actually died.

So in my opinion, I don't think that that has a

large effect on the population. I think we're still growing those populations out there, despite the few mortalities that we've had.

MR. MARSH: Based on your review of the data then would you conclude that the Biological Opinion is still a valid basis for an ongoing program? In other words, the take exceedances don't diminish the importance of the Biological Opinion as on ongoing program.

MS. BALDRIGE: No, I think the Biological Opinion includes a lot of very good proposed actions by reclamation, which includes all the management actions that are up there.

I think that as far as the implementation of the Biological Opinion, we have learned where we have some vulnerabilities in that, in the operations part. And we've taken steps to correct that.

But I think the Biological Opinion it's still in effect. It's still the document that guides the program on the Santa Ynez River. And I don't think because -- I'm trying to say I don't think the small amount of take that we have or mortalities really negates the Biological Opinion, nor should it be a reason for the FEIR not to be able to rely on the Biological Opinion.

MR. MARSH: Yesterday, Dr. Trush had testified regarding the amount of mileage in the Santa Ynez system,

and that wasn't a key factor in the recovery of these fish. Can you discuss the importance of mileage and habitat restoration?

MR. HANSON: Let me start, and then Ms. Baldrige can add.

In terms of building the population in the Santa Ynez River, there are couple of basic principles that we've applied as we've looked at opportunities for habitat restoration. One of those is habitat and two key components of habitat expansion. One is that it's beneficial to a population to have your habitats fairly widely distributed geographically so that the fish can take advantage of different elevations, different parts of the watershed, different tributaries. And that has benefit not only from the standpoint of habitat diversity, but it reduces the risk that some kind of an environmental condition, a fire, a spill, some kind of an accidental condition could, in fact, eliminate your entire population. You want to have it disbursed so that you're dampening the risk of any kind of a catastrophe adversely effecting the entire population. And that way, you have portions of the population even under those adverse conditions that can start to re-populate habitats in the future. So that's an important consideration.

The second important consideration is that we

want to promote this lacticity that was talked about yesterday. Steelhead are a unique species and many attributes. And one of those is that they have adapted and evolved to living in highly variable environmental conditions. And the plasticity and their life history, some remain resident. Some go to the ocean, differences in timing of migration, difference in habitat usage, those are all important attributes that we want to promote in this population in order to broaden and strengthen the life history diversity of the species. And by having very diverse habitats, it helps promote that.

The other is that, as Dr. Trush pointed out yesterday, it's important that you have production of substantial numbers of juvenile fish that grow well in order to survive the rigors of ocean entry and the conditions that occur in the ocean.

And in order to expand the habitat carrying capacity so that you do have more area for these fish to be produced, more areas for spawning, more areas for juvenile growth, that you can start to then rebuild your population in terms of its overall abundance within the watershed and therefore create additional fish that can then migrate to the ocean and contribute to the adult population.

MR. MARSH: You had mentioned a little bit

earlier that in rebuilding ten years is perhaps not a good measure of success at this point. And that the recovery plan had 80 to 100 year recovery time line, time horizon; is that correct?

MR. HANSON: In the Recovery Plan, they point out and they discuss that recovery can take a long period of time, as we have fluctuating ocean conditions, as we have fluctuating environmental conditions within the watersheds, particularly within Southern California. And I think part of their message, at least part of the message I got from reading that portion of the Recovery Plan, is you can get some early indications that you're on the right track, but be prepared that it takes a long period of time for these populations to fully recover.

MR. MARSH: And you've reviewed the final Recovery Plan; is that correct?

MR. HANSON: I have.

MR. MARSH: Dr. Trush yesterday had testified that there was a recovery number of 4,000 fish and that you couldn't bring --

MR. HYTREK: Objection.

CHAIRPERSON DODUC: Yes?

MR. HYTREK: This is going beyond cross-examination of the surrebuttal testimony. It's going into other people's testimony and this is going

beyond the scope of cross-examination into NMFS's Recovery Plan, which wasn't the subject of his testimony, other than one point about how long it may take to get to recovery.

CHAIRPERSON DODUC: Your response.

MR. MARSH: Yesterday, recovery was a subject of the questioning. And it's important to the issues related to abundance and recovery of the salmon which has been the subject of this testimony the last two days.

CHAIRPERSON DODUC: I'll give you some latitude in that.

MR. MARSH: I only have a couple questions.

I just wanted to understand -- you've been working on the Santa Ynez for 20 years. Is it your understanding that the recovery goal for the Santa Ynez is 4,000 fish?

MR. HANSON: No. My understanding from reading the Recovery Plan is -- and this is the final Recovery Plan. They've identified what they consider to be the viable salmonid population target for recovery. And that's identified as an average annual escapement, return of adults, of 4,150 adults, not to the Santa Ynez, but rather to the entire Southern California DPS. And so the Santa Ynez is just one of the river systems contributing to that Southern California DPS.

My understanding from the testimony yesterday that when Dr. Trush was going through and doing his analysis, he had applied the 4,150 fish as if it were going to be produced from the Santa Ynez River alone. And I agree with him. The Santa Ynez River downstream of Bradbury Dam would not support 4,000 returning adults. But the point was that that was the target for recovery for the entire Southern California DPS.

MR. MARSH: And are there measures in the Fish Management Plan and Biological Opinion that are consistent with the current final Recovery Plan?

MR. HANSON: There are. As I mentioned yesterday, we gave consideration to the types of strategies and conservation actions that would be appropriate for recovering a salmonid population like steelhead in Southern California. I had served on the Recovery Team for the National Marine Fisheries Service for Central Valley salmonids. And as part of that, Steve Lindley and a group of us looked at these kind of conservation strategies and actions, the primary constituent elements, and how viable salmonid population dynamics fit into that.

Those principles were imbedded when we were thinking about the development of the Fish Management Plan. They were then subsequently imbedded as that plan

became the core for the Biological Assessment, the Biological Opinion. They're not complete in that the Recovery Plan identifies additional actions. But the actions that we've taken, things like expansion of habitat, removal of passage barriers, and impediments, in-stream flows to support spawning and juvenile rearing of all consistent with the guidance and the direction that's provided by the Recovery Plan for the types of actions to address the stressors on these populations.

MR. MARSH: And again, going back to the population statistics that you have on the stocks for Santa Ynez, what you're seeing is an improvement over the base line condition; is that correct?

MR. HANSON: That is correct.

MR. MARSH: And in light of that, do either of you see any reason why the final EIR should not come into evidence?

MS. BALDRIGE: No.

MR. HANSON: No.

MR. MARSH: With that, I have no further questions.

CHAIRPERSON DODUC: Thank you.

Mr. Wilkinson and Mr. O'Brien, these are your witnesses, so I will move to the Ms. Dunn.

MS. DUNN: No questions.

CHAIRPERSON DODUC: Mr. Conant?

Ms. Murray.

CROSS-EXAMINATION

MS. MURRAY: Good morning. I have just a couple questions. One is as I understand your testimony --

CHAIRPERSON DODUC: Could you get much closer to the microphone?

MS. MURRAY: Yesterday and today, really both of you mentioned it, that 2005 was a big year. The program really in the main stem kicked in in 2005 and it's an ongoing process. So is it your opinion that this interim program really has only been going since 2005 with all of the flows and the accounts and you're still learning about the system; is that correct?

MS. BALDRIGE: Well, I think we always learn about a system, even if we've been working on it for 20 years. But we've mad some small steps along the way, but the full program from the flow perspective was not implemented until 2005.

MS. MURRAY: So thank you for that clarification. Still an interim.

So I also want to ask about a graph you had yesterday Cachuma Member Units Exhibit 293.

MS. BALDRIGE: Yes.

MS. MURRAY: Is it your understanding that the

Department of Fish and Game has approved grants for the Cachuma Conservation Release Board and the Cachuma Operations and Maintenance Board in the years 2000, 2002, 2003, 2004, 2006, 2007, 2008, and 2010 in about the total amount of $1,761,764 approximately and --

MR. HANSON: Approximately.

MS. MURRAY: And is that figure included?

MS. BALDRIGE: The answer is yes. Fish and Game has been wonderful in helping us implement the program, in particular, Mary Larson. Those numbers are included here. They are all of the costs that have been expended on fisheries projects in the Santa Ynez.

MR. HANSON: I'd like to add to that and express my appreciation as well, not only for the financial contribution, but Fish and Game has been a partner in terms of helping design many of these projects.

MS. MURRAY: Right. That's the indication I got. And still an ongoing interim.

MS. BALDRIGE: If I may say before you go, Fish and Game was the one that led the early process. So it's been great they've been able to stay involved through time. I know there's many time, talents, from Fish and Game.

CHAIRPERSON DODUC: Thank you, but you've answered her questions.

Let's move on. Mr. Hytrek.

CROSS-EXAMINATION

MR. HYTREK: Good morning.

Ms. Baldrige, you testified that the Final Environmental Impact Report relies on more --

CHAIRPERSON DODUC: Could you please get microphone?

MR. HYTREK: You testified that the final Environmental Impact Report relies on more than the 2000 Biological Opinion; is that correct?

MS. BALDRIGE: Correct.

MR. HYTREK: It still relies at least in part on the 2000 Biological Opinion; is that right?

MS. BALDRIGE: Yes, it does.

MR. HYTREK: Then you discussed an incident in 2007 in which mortality resulted from failing to meet flow requirements at Alisal Bridge; is that right?

MS. BALDRIGE: Yes.

MR. HYTREK: So, now, that incidental or that mortality resulted from project operations, not monitoring; is that correct?

MS. BALDRIGE: Yes.

MR. HYTREK: And then you testified about revisions to protocols and the project operations manual that resulted from that; is that right?

MS. BALDRIGE: Yes.

MR. HYTREK: And that those revisions are revisions to operations that were analyzed in the 2000 Biological Opinion; right?

MS. BALDRIGE: They were. I think the 2000 Biological Opinion contemplates we would meet the target flow at Alisal 1.5 CFS in years when we were required to release that. The protocols ensure we were meeting the target that was analyzed.

MS. HYTREK: But has NMFS analyzed the new protocols since the new Biological Opinion yet?

MS. BALDRIGE: I don't believe there is a new Biological Opinion, so I don't know if NMFS has analyzed the information that we sent them relative to the actions that we were taking in the river. But I have not seen a new Biological Opinion.

MR. HYTREK: Dr. Hanson, you just recently testified about the recovery targets in the NMFS draft Southern California Recovery Plan; is that correct?

MR. HANSON: No. I was referring to the final Recovery Plan.

MR. HYTREK: You were referring to the final Recovery Plan. Were the targets any different in the Draft Recovery Plan that's the subject that was part of this Final Environmental Impact Report?

MR. HANSON: The data that I reviewed for this proceeding was based on the final. I didn't go back and review the earlier draft. I looked at that a year or two ago. But the information I used in preparing my testimony and the information that I just reviewed was from the final.

MR. HYTREK: Do you have any reason to believe that the targets are any different in the final than the draft?

MR. HANSON: I don't have any reason to believe they're different, although it wouldn't surprise me that in the comments and further deliberation that they could have refined those. But I don't know for sure.

MR. HYTREK: The final wasn't available both for -- the Final Recovery Plan wasn't available for the Final Environmental Impact Report; right?

MR. HANSON: That's correct.

MR. HYTREK: I'd like to show you the cover page and relevant page from the Draft Recovery Plan. Now this is the cover page and page 51 of the Draft Recovery Plan. So bringing your attention to line 8 there, it's got all the lines numbered. Could you please read the title there?

MR. HANSON: The title on line 8 is 5.3.1.1, discussion of population level recovery criteria.

MR. HYTREK: That's population, not the distinct population segment or the species; is that correct?

MR. HANSON: The title says, "Population Recovery." Just scanning through the lower couple of paragraphs, it refers to the DPS.

MR. HYTREK: Well, now refer you to line 16. Could you please read the sentence that begins on line 16?

MR. HANSON: Based on the irregular inter-annual patterns of precipitation, anecdotal accounts of highly variable spawning runs and expectation that larger abundances buffer populations against the increased extinction risk that come with variations in freshwater and marine survival. It can be expected that an average of 4,150 spawners per year and persisting through a cycle of core ocean conditions would be adequate to safeguard a population (see also discussion below at P.2-Ocean Conditions).

MR. HYTREK: So that 4,150 figure refers to populations; isn't that right?

MR. HANSON: It does refer to populations, plural.

MR. HYTREK: Okay. Then referring you to line 28, could you read the sentence that begins there?

MR. HANSON: "Separate watersheds comprising each BPG treated as individual steelhead populations for the

purposes of meeting the run size criteria."

MR. HYTREK: Thank you.

Now referring to your testimony regarding Figure 1 of your outline that we had up here previously --

MR. HANSON: Yes.

MR. HYTREK: So the numbers of O. mykiss that are represented there are both resident O. mykiss and the anadromous form of O. mykiss; is that right?

MR. HANSON: That is correct. These data were taken from snorkel surveys and they represent both resident and the anadromous life history form.

MR. MARSH: And the anadromous life history form is commonly referred to as steelhead. And that's what's listed by the National Marine Fisheries Service under the ESA; is that correct?

MR. HANSON: Steelhead, the anadromous form, are the life history form that are listed, yes.

MR. HYTREK: Then you testified about trends in the numbers. Have you run -- or does this figure represent any statistical regression analysis to determine whether any trends are significant?

MR. WILKINSON: Which figure are you referring to, Counsel?

MR. HYTREK: Figure 1 on the board.

MR. WILKINSON: The one up on the screen.

MR. HYTREK: The figure that's up on the screen. The figure that I referred to earlier that he testified about.

MR. HANSON: This was a histogram of annual estimates of standing crop. It does not represent a regression from a trend perspective, no.

MR. HYTREK: Now this figure starts at 1995 and you discussed trends since 1995; is that correct?

MR. HANSON: I discussed these data, which the best data we had from the snorkel survey started in 1995, yes.

MR. HYTREK: And the Final Environmental Impact Report uses a base line of 2000; is that correct?

MR. HANSON: I believe that is correct.

MR. HYTREK: Thank you.

CHAIRPERSON DODUC: Thank you, Mr. Hytrek.

Ms. Krause?

Mr. Wilkinson, are there any discrete points upon which you'd like --

MR. WILKINSON: Very discrete points and probably just one.

REDIRECT EXAMINATION

MR. WILKINSON: Dr. Hanson, looking at the page of the draft Steelhead Recovery Plan that was provided to you by Mr. Hytrek, could you see anywhere on that page an

effort by the Draft Recovery Plan to link the number of 4,150 spawners specifically to the Santa Ynez River?

MR. HANSON: The linkage would be I think implied by the sentence that begins on page -- on line 28 that just simply says, "The separate watersheds comprising the BPG are treated as individual steelhead populations for the purposes of meeting the run criteria."

That would imply that one interpretation is the 4,150 steelhead. Would be applicable to each of the individual watersheds? That doesn't make a lot of sense to me. But that's what's implied by that sentence.

MR. WILKINSON: All right. So the reference is then throughout the page to the DPS means then that the number 4,150 would be used to multiply by all of the watersheds within the DPS?

MR. HANSON: That would be one interpretation of this, yes

MR. WILKINSON: Is that the interpretation you received or took away from the document?

MR. HANSON: That is not the interpretation I took away from the document, given the watersheds and my expectation of their production in Southern California.

MR. WILKINSON: What was the interpretation then that you have from this document?

MR. HANSON: The interpretation I had from the

document was that this 4,150 adult steelhead returning on an annual basis would be for all of the various systems tributary to the southern part of California that would support the southern steelhead DPS. Not individual river systems.

MR. WILKINSON: You were asked a question by Mr. Marsh about base line. And I know that's been a concern to the Hearing Officer throughout the proceeding. I would like to know whether in your opinion there has been a significant measurable increase in population abundance of O. mykiss, including anadromous steelhead, since the development of the 2000 Biological Opinion?

MR. HANSON: Based on the monitoring data that I've reviewed, I believe this has been.

MR. WILKINSON: And Ms. Baldrige, do you have a similar opinion?

MS. BALDRIGE: I do.

MR. WILKINSON: Thank you. That's all I have.

CHAIRPERSON DODUC: Any re-cross?

All right. I don't see any takers to that.

Mr. Wilkinson, at this point, do you wish to move into evidence your exhibits?

MR. WILKINSON: I would like to confirm with Mr. Mona that we --

CHAIRPERSON DODUC: Could you get closer to the

microphone?

MR. WILKINSON: I'm sorry -- that we moved into evidence the exhibits related to Ms. Baldrige's testimony yesterday; is that correct?

ENGINEER MONA: That's correct. Number 293. So next in order is 294.

MR. WILKINSON: Then I would move as 294 Dr. Hanson's testimony outline.

CHAIRPERSON DODUC: Any objections to that? Not hearing any, we'll accept that into the record. Thank you.

(Whereupon Member Unit Exhibit 294 was admitted into evidence by the Hearing Officer.)

MR. WILKINSON: That's the last panel, if I'm not mistaken, isn't it?

CHAIRPERSON DODUC: Yeah. You were very efficient. If I had known, I would have kept you later last night. All right.

Well, thank you all for your efficiency yesterday and this morning.

Does staff have any procedural issues you want to cover? All right.

Since closing briefs for Phase 2 of the Cachuma hearing were submitted in February of 2004, I'm not going to be accepting additional closing briefs, especially

since you've all given us a lot of information these past two days. So I'm going to just go ahead and thank you for your interest, your cooperation, and your participation in this hearing.

I will issue my decision on the very narrow scope of this hearing next week. And with that, the hearing is adjourned.

(Whereupon the hearing adjourned at 9:41 a.m.)

CERTIFICATE OF REPORTER

I, TIFFANY C. KRAFT, a Certified Shorthand Reporter of the State of California, and Registered Professional Reporter, do hereby certify:

That I am a disinterested person herein; that the foregoing hearing was reported in shorthand by me, Tiffany C. Kraft, a Certified Shorthand Reporter of the State of California, and thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said hearing nor in any way interested in the outcome of said hearing.

IN WITNESS WHEREOF, I have hereunto set my hand this 13th day of April, 2012.

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TIFFANY C. KRAFT, CSR, RPR
Certified Shorthand Reporter
License No. 12277