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SECRETARY OF THE
COMMISSIONErik Poole
26526 S. Cow Creek Road
Millville, CA 96062
January 8, 2010

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FEDERAL ENERGY
REGULATORY COMMISSIONKimberly Bose
Secretary, FERC
888 First Street, NE
Washington, DC 20426

Re: FERC Project P-606-027 PG&E Kilarc-Cow Creek License Surrender Proceedings

Dear Secretary Bose:

I am writing to follow up on my recent submission of comments to the project team working on the FERC project P-606-027 PG&E Kilarc-Cow Creek License Surrender. My recent comments were e-filed with the commission as FERC accession number 20091230-5100.

In this subject proceeding I am representing myself and my family, as well as the Abbott Ditch Users group (ADU) as interveners along with the Tetrick Ranch, Evergreen Shasta Power Inc. and the County of Shasta. The ADU formed as a group in response to the foreseen impacts to our water right from PG&E's proposed decommissioning plan. We have participated in many meetings and discussions with stakeholders in this proceeding, as well as community groups, local and state agencies, legal advisors and the FERC project team itself. In addition we regularly negotiate and assist with our co-interveners.

The ADU has as its primary goal the uninterrupted continuation of delivery of our adjudicated water right. In our study of the decommissioning plan, and the FERC's decommissioning process, we quickly determined that the most efficient and beneficial avenue of recourse for our group and the community at large was to propose an alternative that the FERC could assess and adopt or adapt to relieve the community of the costs and impacts of PG&E's decommissioning plan.

We began consultation and negotiations with other community stakeholders and agencies in order to form a broad based alternative that addressed as many community concerns as possible. That alternative has been outlined and submitted to the FERC in several filings through our intervention, and more details are forthcoming. The ADU feels that the alternative proposed through our intervener group is the best resolution for the whole community.

However, purely in the interests of the ADU, I wish to clarify our position to the FERC on possible outcomes of the decommissioning process. We believe that the preservation of the ADU water right delivery needs to be a de facto minimum element in any decommissioning plan, or alternative to be considered by the FERC. We believe this

January 11, 2010

Page 2

because it is the California state courts that hold authority to defend the Adjudication¹ and its members from direct or indirect impacts to their water rights. Regardless of the FERC's ultimate assessment of broad public benefit, the ADU water right must remain fully satisfied and uninterrupted. It would be unacceptable should the FERC choose to forward a decommissioning plan that knowingly impacts adjudicated water rights.

While I strongly disagree with the analysis and conclusions drawn in the recent comments from the California Department of Fish and Game² (CDFG), I do wish to point out that those comments also forward this concept: "appropriate mitigation" is required for the foreseen impacts to the ADU water right. These same comments from the CDFG raise the specter that the ADU might somehow lose our recourse to "appropriate mitigation" through our support of a more broad based and beneficial alternative, or due to the FERC decommissioning process ending in a situation requiring the licensing of a new hydro electric project that would be blocked by the CDFG through their possible increased minimum in-stream flow requirements for South Cow Creek. I prefer to place faith in the FERC decommissioning process and the California state courts to protect and defend the ADU water rights from such a legally unsupportable outcome.

Although no intervener or stakeholder in this proceeding thus far has formally forwarded a new diversion to satisfy the ADU water right as an alternative to PG&E's decommissioning plan, we do believe that should the FERC choose not to implement the alternative as proposed through our submissions, and specifically should the FERC choose to allow the destruction of the current diversion facilities used to deliver water for the ADU water right, we believe that the FERC decommissioning order can and must include consideration and remedy for the delivery of the ADU water right.

Were the ADU acting solely in our own interests, we would obviously require that a new diversion be provided to rectify the proposed decommissioning impacts to our water right delivery. However, in the spirit of the FERC approach of searching for a broad based public benefit to decommissioning proceedings, we have chosen to support an alternative that greatly promotes the general public benefit over the proposed PG&E plan. The ADU supports this plan because it also preserves and protects our water right and its delivery.

The ADU remain willing and ready to work with the FERC and all stakeholders to these decommissioning proceedings to ensure a final outcome that benefits the public and respects and preserves water rights. We are eager to ensure that this FERC process be exercised in its entirety and that it not only attain its goal of a broad based public benefit, but results in an outcome that requires no further recourse to state courts and can be

¹Cow Creek Adjudication Decree of the Superior Court for Shasta County, California In the matter of the determination of the rights of the various claimants to the water of Cow Creek stream system excepting Clover Creek, Oak Run Creek and North Cow Creek in Shasta County California No. 38577 Decree entered August 25, 1969 in book 89 of Judgments – the "Adjudication."

² Document Title: Comments on Scoping Meeting for Kilarc-Cow Creek Project, Federal Energy Regulatory Commission (FERC) No. 606, Old and South Cow Creeks, Shasta County. Submitting Agency: The California Department of Fish and Game. Dated: December 10, 2009. FERC Accession numbers: 20091215-5104 and 20091228-0038

January 11, 2010

Page 3

executed without further impacts from government agencies. We believe that the proposed impacts to our water right in PG&E's decommissioning plan rightly deserve remedy through the FERC decommissioning process and look forward to helping create a mutually beneficial outcome with all stakeholders and affected parties.

Finally, I wish to request that this letter, and my earlier comments³ be entered into the official record for this proceeding as they have been served according to the commission's rules either by email or postal service to the service list for the FERC project P-606.

Thank You and Best Regards,

A handwritten signature in black ink, appearing to read 'Erik Poole', with a stylized, cursive script.

Erik Poole
For the Abbott Ditch Users

Cc: All Parties on FERC Project Official Service List

³ Comments of Erik Poole Regarding CDFG Scoping Comments and Abbott Ditch Diversion (EPOOLE Comments on CDFG Dec 30 2009.DOC) FERC Accession Number: 20091230-5100

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Comments to the FERC Project Team for P-606-027

It is my understanding, from meeting with you, the FERC project team, and my discussions with other legal and regulatory advisors that the decommissioning process is at an important stage right now. The team is attempting to make an assessment of the NEPA scope, all the while keeping the overall target of a fair and balanced resolution in the best public interest as its final goal. I have more than appreciation for the efforts and process the FERC team is executing – I have high hopes for this process to yield a swift and fair outcome to the issues at hand. I do not agree with all that is said or submitted to the FERC team. Some of the comments are self-serving, one-sided, factually incorrect and misleading. There are gaps in information that belie deeper arguments, and there is the outright refusal by some to answer questions and deliver quality input to your process. As I stated during the public meeting when the FERC team visited us here, I wish to support and make full use of the FERC process as it is intended, and to that end, I felt compelled to make comments to the FERC team at this time regarding recent submissions.

1. Document Title: Comments on Scoping Meeting for Kilarc-Cow Creek Project, Federal Energy Regulatory Commission (FERC) No, 606, Old and South Cow Creeks, Shasta County
Submitting Agency: The California Department of Fish and Game
Dated: December 10, 2009
FERC Accession numbers: 20091215-5104 and 20091228-0038

The California Department of Fish and Game (CDFG) has played an important role throughout the relicensing and subsequent decommissioning processes for this project from the very beginning. They were present during preliminary negotiations for re-licensing, negotiations resulting in the "MOU" signed by CDFG and other agencies, and have been present at most of the FERC meetings. They have frequently commented on documents and inputs throughout the process, and have participated in site visits. However, the CDFG has not yet submitted crucial pieces of information and data to support this process. Specifically, the CDFG has not stated their sources and requirements for increased minimum in-stream flow (MIF) requirements. Instead, they have left this specter to the imaginations of all other parties involved, thereby creating a gap in information and data rendering appropriate analysis and resolution of project issues impossible.

The CDFG is a key participant in not only this decommissioning process before the FERC, but also to any paths that may be taken to resolve its issues. The MIF requirements are the specific element that make-or-break not only PG&E's initial re-licensing effort, but any alternative that the FERC staff may wish to consider or forward. Without a clear statement of what those MIF requirements will be, and a clear case for their validity, all paths to resolution, save the insufficient and incomplete PG&E plan before the FERC team now, are blocked. This is a situation that is not in the best interests of the FERC process, nor the community at large, nor stakeholders, nor parties trying to propose alternatives. In effect, CDFG's refusal to bring this information into the process holds all others at bay until such point that CDFG may exercise a de-facto authority over these proceedings. The FERC should carefully consider how this impacts their analysis and determination of the best possible outcome for the public benefit.

Proceeding without this information will run the risk of CDFG blocking proposed actions and resolutions through their exercise of MIF requirements. This has the possibility to affect not just PG&E and FERC's

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efforts, but also to affect the many community stakeholders in a very costly and time consuming manner – a time during which the stream system will not benefit from any environmental improvement.

This withholding of critical information from the process can hardly be considered a mere oversight. CDFG themselves state in paragraph five of the above referenced comment letter:

PG&E would have likely had increased minimum instream flow (MIF) requirements under a new license in order to adequately protect, mitigate for damages to, and enhance the fish and wildlife resources for the Project. These new requirements were part of PG&E's determination that decommissioning was a viable and cost-effective alternative to relicensing.

Here is an opportunity for the CDFG to state outright what these “likely” requirements would have been. It is also a clear statement by the CDFG that in fact the assessment of a viable and cost-effective solution hinges on these “likely” requirements. Yet still, no forthright statement of these requirements has been made by the CDFG.

The CDFG then goes on immediately after this statement in paragraph five to state:

An economic analysis to demonstrate how either Alternative would be self sustaining under increased flow conditions should be presented.

This statement is made in an effort to forward the rejection of any consideration of alternatives to PG&E's current decommissioning plan. It is not difficult to see from these two statements that CDFG is one and the same in withholding, and demanding the use of, this MIF requirement information. Nor is it difficult to see that what the CDFG is demanding is a wholesale acceptance of PG&E's decommissioning plan, without consideration of any alternatives, and without the benefit of all pertinent data and information.

The FERC process relies on the provision of all pertinent information from all parties. This was plainly stated in the Scoping Document released by the FERC staff for this project (SCOPING DOCUMENT KILARC-COW CREEK HYDROELECTRIC PROJECT – CALIFORNIA - Application for License Surrender - FERC Project No. 606-027, September 15, 2009, Section 5.0 Request for Information.) It was also plainly stated during the Agency scoping meeting on October 22 2009 when Ms. Linton solicited a comment from Mr. Myers of the CDFG. Mr. Myers stated, according to the transcript record of the meeting¹ on page 93 beginning at line 24: “There's a lot of non-information out there. And there's a lot of analysis proposed. So my question of the FERC staff is, if you don't have the information, how are you going to do that analysis?” (ending at page 94 line 3) to which Ms. Linton gave an excellent and full reply, beginning on page 94 line 4 of the Transcript and ending at page 95 line 6:

¹ UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION In the Matter of: FERC No. 606 PACIFIC GAS AND ELECTRIC COMPANY LICENSE SURRENDER APPLICATION KILARC-COW CREEK HYDROELECTRIC PROJECT RESOURCE AGENCY MEETING HOLIDAY INN 1900 HILLTOP DRIVE REDDING, CALIFORNIA THURSDAY, OCTOBER 22, 2009 9:00 A.M. REPORTED BY: JOHN COTA, FERC Accession number 20091022-4010 – the “Transcript.”

It can't be done that way. We will do our analysis based on the best available information in front of us right now. And that's what we are trying to get from you. *A big portion of our upcoming NEPA document will be about alternatives. And we need that information from you.* The alternatives that are out there are being looked at indirectly through staff so that staff can come with alternatives. And we count on information from the public, the things that were outlined in our scoping document. There's a section in the scoping document called, Requests for Information. It's actually on page 13 of the scoping document, section 5.0, Requests for Information. *This is the kind of stuff that we are looking for from resource agencies, NGOs, the public.* At this point we assume that PG&E has given us all of the information. We went through a time frame where we asked PG&E for additional information. They provided us that additional information. There will likely be some follow up between FERC staff and PG&E. But *the scoping process is the opportunity for you guys to provide us with any information that we can use.* Otherwise we will become our technical selves and we will use all the information that is available to us and do our own research to come up with our analysis. (italicized emphasis added)

Many other stakeholders have offered input, data and information to the FERC process in an open and forthright manner. Stakeholders have gone to significant personal expense to pull in environmental data input and analysis – all in the spirit of the FERC's request as stated in your scoping document. The Fish and Wildlife Service has shared with the FERC information on its recent analysis of the South Cow Creek stream system. Studies specific to South Cow Creek regarding likely factors to improve habitat have been produced and provided to the FERC by private citizens. However, as stated above, all of these efforts may well be scuttled by the CDFG should the CDFG continue to withhold their demands for MIF requirements until a much later and critical point in this process.

Corollary to the conspicuous absence of the MIF requirements from CDFG is the data, studies and analysis to support the demands for increased MIF requirements. I too participated in the quick hike up the lower portion of the Wagoner canyon with representatives from the National Marine Fisheries Service and the CDFG. No equipment was present, no measurements were taken, and no subsequent output of notes, suggested analysis or follow up items has been seen to date. The comment document referenced above states in paragraph six:

After seeing the reach, we believe when the natural hydrograph is returned to South Cow Creek, there will be exceptional habitat for steelhead migration, spawning, and rearing throughout the reach. The Department staff observed the current lack of flow in the bypass reach creates less than ideal habitat conditions and creates potential fish passage issues. Adequate increased flow will remedy these problems.

This armchair assessment of a portion of the reach is hardly scientifically supported. No data on the total available stream flow amounts is used to ground the assumption that "adequate" in-stream flow is achievable. No analysis of the seasonal amounts of total flow is used to assess the possible impacts to the environment for the target species. No analysis of the current habitat conditions in the reach is established as a baseline or to support the claim that the bypass reach is currently "less than ideal." No definition of "ideal habitat" is offered as a yardstick against which measurements can be made. No

specific “potential” fish passage issues are defined, nor is there a measure of whether or not the “potential” is manifested. Comments from the CDFG about the “current lack of flow” should be carefully placed in context; diversion by PG&E was minimal on the day the canyon was hiked, and the flows in the canyon were representative of exactly those flows that will be naturally available.

In short, any new or increased MIF requirements need to be brought to light immediately, along with their supporting evidence, and weighed in the balance for the public benefit of this proceeding. Continued reservation of this information by the CDFG only serves to fetter the FERC process and its attempts to appropriately determine, analyze and weigh the options before it. Should the CDFG continue to withhold this information, data and analysis, or put off the delivery of this information to the FERC until a later date then I would urge the FERC to exercise any and all powers it has available to remove consideration of these demands from its analysis, and remove any possibility for the CDFG to impact the FERC’s research and analysis and the FERC’s ultimate assessment and execution of its decommissioning strategy for this project.

Another topic brought to mind by the CDFG comment document referenced above is the nature of the “MOU” (Kilarc-Cow Creek Project Agreement, March 22, 2005, FERC accession number 20050401-0139 - the “MOU”) signed by several agencies and PG&E prior to PG&E’s decommissioning request to the FERC. While it appears to be unanimously agreed that it is the state courts of California that exercise jurisdiction over the water rights issues at hand in this proceeding, there remain significant differences in the interpretation of those rights and the Adjudication that defines them². These differences strain the MOU and call into question its purpose, authority and usefulness to a fair and balanced assessment of the broadest public benefit possible from this FERC decommissioning process. Additionally, I find it impossible to reconcile the terms of the MOU, especially its purported respect for other water rights, with PG&E’s proposed decommissioning plan. Although the CDFG seems quite capable of this, as they end their comment document at paragraph ten with yet another iteration of their support for the plan.

Paragraphs eight, nine and ten of the above referenced CDFG scoping comment document reflect the complex nature of the multiple interpretations of the MOU and the Adjudication. The CDFG comments in this section begin by recognizing that the MOU has as one of its desired conditions that “Other water right holder's rights are preserved.” This is a very broad statement, and in effect only serves to iterate that the signatories to the MOU should do nothing illegal or contradictory to the Adjudication and other laws governing water rights. This desired condition is in effect a red herring: the MOU has no binding authority over water rights, it is the California state courts that retain that jurisdiction. Those state courts would ultimately be the arbiter should any infraction occur or dispute arise. The Adjudication itself also stipulates in its Effect of Decree section on page 130, in paragraph 30:

That each and every party to this action, his or her agents, successors, grantees and assigns, be and hereby are perpetually enjoined and restrained from doing anything in violation of the

² Cow Creek Adjudication Decree of the Superior Court for Shasta County, California In the matter of the determination of the rights of the various claimants to the water of Cow Creek stream system excepting Clover Creek, Oak Run Creek and North Cow Creek in Shasta County California No. 38577 Decree entered August 25, 1969 in book 89 of Judgments, page 484 – the “Adjudication.”

terms or provisions of this judgment and decree, and from diverting any water from said Cow Creek Stream System as defined herein at any time in excess of a quantity reasonably necessary for, and actually applied to, reasonable beneficial use, under and by reasonable methods of diversion and use, and *from doing anything, directly or indirectly, that will obstruct or interfere with any right of another adjudged and decreed herein.* (italics for emphasis added)

However, the decommissioning plan submitted to the FERC by PG&E contemplates removing the diversion that serves water to the Abbott Ditch Users via their diversion on Hooten Gulch. The PG&E plan proposes no mitigation for this impact, and indeed PG&E has stated that they feel there is no impact to the Abbott Ditch Users water right. Other signatories of the MOU have indicated that they disagree. Reconciliation of the desired condition to respect other's water rights in the MOU to PG&E's proposed decommissioning plan is impossible. The proposed decommissioning plan does not support the desired conditions of the MOU. Signatories should carefully examine their participation in the MOU against their support for the PG&E decommissioning plan and determine how they can reconcile the two, and remain parties to the MOU while supporting the proposed decommissioning plan and its impacts to water rights.

Signatories to the MOU, who claim as a desired condition to preserve other water right holders' rights should carefully review whether or not their support of PG&E's decommissioning plan could be construed as either a direct or indirect obstruction or interference to the right of the Abbott Ditch Users. PG&E has stated that they feel there is no impact due to their planned decommissioning activities. However, I have laid out below a careful exposition of the Adjudication and its supporting documents that strongly indicate otherwise.

The CDFG immediately follows their quotation from the MOU about preservation of other water rights with a statement advocating some mitigation, or perhaps an alternative to PG&E's plan, that includes the construction of a new diversion on South Cow Creek at a location they indicate as a historical diversion point, or a point defined by the Adjudication. This would indicate that at least the CDFG believes there are direct or indirect impacts to the Abbott Ditch water right to consider. The CDFG's proposal to simply construct a new diversion on South Cow Creek belies multiple contradictions and complexities:

1. Details of this plan are not evident anywhere in the CDFG filings to date. How would this construction effort be paid for? How would it be permitted? Who would perform the studies necessary to justify a new diversion in the midst of their foreseen "exceptional habitat for steelhead migration, spawning, and rearing?" In the absence of scientific data and solid analysis, how can common sense support the notion that destroying a diversion in use today is worthwhile when it causes the construction of a new diversion *downstream* of the original?
2. How can the CDFG state, as they do in paragraph ten of their comment document, that they continue to support PG&E's proposed decommissioning plan, remain party to the MOU, and recognize that there are water rights impacts unaccounted for in that plan? How can the CDFG remain party to the MOU that claims respect for other's water rights and continue to push PG&E's decommissioning plan which severely impacts the Abbott Ditch users?

3. There is no "historical" diversion point in South Cow Creek that has served the Abbott Ditch Users. The Adjudication provides in its Special Provisions section on page 20, paragraph 27 that the Abbott Ditch is entitled to divert 13.13 cubic feet per second from the natural flow³ of the east channel of South Cow Creek at a point designated on the SWRCB map as diversion 73. Further, the Adjudication provides "...that the diversion works under this right may be extended to control and divert all flows to which the shareholders are entitled occurring in either the east or the west channels of South Cow Creek." Interpretations of these provisions from the Adjudication vary widely, from PG&E's claim that this means the Abbott Ditch should divert from below the confluence of South Cow Creek with Hooten Gulch, to the CDFG claim that the newly constructed diversion should be placed at Sec. 6 T31N R1W which is a point not on South Cow Creek at all. A rational approach to this situation should consider the current and historical diversion practices by the Abbott Ditch Users. The diversion at Hooten Gulch has always been in place where it is today. Historically, when the natural flows in Hooten Gulch have not sufficed to meet the Abbott Ditch right, the works had been extended (i.e., temporary diversion via sand bag structures) to a point on South Cow Creek in order to augment the natural flows in Hooten Gulch. This correlates to the special provision outlined in the Adjudication. Today this practice is impossible due to re-shaping and cutting of the stream channel by the Army Corps of Engineers. However, taking this historical practice into consideration, one may also conclude that the east channel of South Cow Creek referred to in the Adjudication is actually the lower portion of Hooten Gulch, and indeed the SWRCB Report on Water Supply and Use of Water on Cow Creek Stream System⁴ that predated the Adjudication identifies diversion point 73 as being located on that lower portion of Hooten Gulch (where it remains today) and that water available for diversion there consists principally of water discharged from the powerhouse via its tailrace into the natural flow of Hooten Gulch. Additionally, the associated maps supporting the Adjudication (sheet 4) locate a historical east channel of South Cow Creek as joining Hooten Gulch upstream of said diversion point 73. Please see Attachment A for excerpts from the State Water Board report, including the description of diversion point 73 (matching today's diversion on Hooten Gulch) and the map (sheet 4) associated with the Adjudication, indicating the east and west channels of South Cow Creek, and diversion number 73 on Hooten Gulch.

This digression into the definition and historical accounting of the Abbott Ditch diversion is intended to illustrate my earlier point. There is indeed a significant impact to the Abbott Ditch Users in PG&E's proposed decommissioning plan. This throws the MOU into serious doubt as a binding document, and should cause signatory agencies to contemplate either a withdrawal from the MOU or to re-state whether or not they can support the existing decommissioning plan as put forth by PG&E. I would

³ N.B. "natural flow" is defined in the adjudication, page 3, paragraph number 5 thusly: "The term "natural flow" means such flow as will occur at any point in a stream from the runoff of the watershed which it drains, from springs and seepage which naturally contribute to the stream, *and from waste and return flow from dams, conduits and irrigated lands*, as distinguished from water released directly from storage for redirection[sic] and use, or water imported from another watershed which is released directly to the natural channel for conveyance to the place of beneficial use." (italics added for emphasis)

⁴ State of California the Resources Agency State Water Rights Board Cow Creek Adjudication Report on Water Supply and Use of Water on Cow Creek Stream System Shasta County, California May 1965

further urge the FERC to take these facts into consideration when assessing whether or not PG&E's decommissioning plan is either sufficient or complete. Although PG&E may continue to ignore the historical facts of the Abbott Ditch water right and diversion practices, and though PG&E may have predicated their decommissioning plan on a flawed interpretation of the Adjudication, this error need not be perpetuated by other agencies.

PG&E's disagreement with the facts I have laid out above, defining the Abbott Ditch diversion and the Adjudication's definition of the Abbott Ditch water right, cannot be helped but for recourse to the state courts for a formal assessment. However, the FERC is fully capable of making their own assessment of these facts based on their site visit, comments from all stakeholders, the Adjudication and any other information they may wish to gather. I believe that at a minimum the FERC must recognize that PG&E's decommissioning plan proposes actions that will create one of two severe impacts to the Abbott Ditch Users water right: A) The Abbott Ditch water right will cease to be served via our existing and historical delivery structures, and the irrigation system it supports will become inoperable, or B) the significant time and expense of creating a new diversion somewhere on South Cow Creek will be required, including modification of the Adjudication, new rights of way, permitting, construction, etc.

I hold that both of these possibilities clearly show great deleterious effects on the Abbott Ditch Users and that both scenarios should be weighed in FERC's contemplation of the merits of PG&E's proposed decommissioning. Further, I believe that because PG&E's decommissioning plan completely ignores these associated impacts, the plan should be fully rejected by the FERC, and an alternative pursued forthwith; an alternative that truly respects the water rights as defined in the Adjudication, eliminates impacts to water rights, eliminates impacts to the community at large, reduces or eliminates the costs of decommissioning, preserves green power production and improves the ecosystem and habitat of the South Cow Creek watershed. Although this sounds like an impossible set of conditions when compared to the morass of legal and regulatory confusion created by PG&E, the CDFG and other agencies over this decommissioning proposal, it is indeed possible, it is indeed supported by the public and it is indeed a fully appropriate and beneficial resolution to this decommissioning process before the FERC.

Attachment A

The first page of this attachment consists of an excerpt from pages A-95 and A-96 of the State of California the Resources Agency State Water Rights Board Cow Creek Adjudication Report on Water Supply and Use of Water on Cow Creek Stream System Shasta County, California May 1965. These pages are from the section titled Table A-4 Description of Diversion Systems, beginning on page A-45

The second page of this attachment is Sheet 4 from the maps which accompany the Cow Creek Adjudication. It is an overview showing a large area covered by the adjudication, including the South Cow Creek powerhouse and ditch works, Hooten Gulch, the Abbott diversion, etc. It is not legible in printed form, but may be zoomed in if being reviewed electronically.

The third page of this attachment is a close up of the Hooten Gulch area showing the east and west channels of South Cow Creek as referred to in the adjudication, and the Abbott diversion (point 73) in greater detail and with more exact location on Hooten Gulch.

Diversion 73 is the Abbott Ditch from the south side of the east channel of South Cow Creek within SW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 6, T31N, R1W.

A concrete and flashboard dam 6 feet high and 30 feet long diverts the water into a ditch 7 feet wide and 2 feet deep. Water available for diversion consists principally of water discharged into Hosten Gulch through the South Cow Creek Powerhouse tailrace, although a small amount is also contributed by the eastern channel of South Cow Creek and return flow from lands irrigated by the Wagoner Ditch (Diversion 72).

Ditch flow in 1964 above the Pine Timber Gulch siphon and above all takeouts was as follows:

Date	Flow, in cubic feet per second
May 8	3.2
May 14	9.2
May 29	9.8
June 12	9.3
June 19	15.5*
July 14	11.7
July 27	15.3

* Full ditch capacity

Water entering the ditch is controlled by a headgate at the diversion dam and a second headgate just above the ditch siphon under Pine Timber Gulch. The ditch is about three miles long and provides irrigation water to five ranches. The following tabulation lists these ranches in downstream order and also shows the reported ditch rights and irrigated acreage on each.

Name	Reported ditch right	Irrigated acreage
Allan G. Abbott	8/16	96.0
Ellis T. Jones	1/16	14.6
Jesse C. Jones	1/16	13.4
V. R. Farrell	4/16	74.8
W. H. Hunt Estate Co.	2/16	<u>112.9</u>
	Total	311.7

The ditch follows the contour of the side hill and numerous laterals on the north ditch bank are used to flood irrigate the pasture and hay lands which lie between the ditch and South Cow Creek.

