DAWSON, PASSAFUIME, BOWDEN & MARTINEZ

DALE H. DAWSON
PHILLIP A. PASSAFUIME
GERALD D. BOWDEN, *Ret.*KATHLEEN M. MARTINEZ
CHRISTOPHER M. WOLCOTT, *Assoc.*

A LAW CORPORATION 4665 Scotts Valley Drive Scotts Valley, California 95066

(831) 438-1221 FAX (831) 438-2812

April 27, 2015

Peter Barnes

RE: Lake Almanor Cold Water Curtain

Dear Mr. Barnes:

On March 25, 2015, I sent you a letter regarding the Lake Almanor Cold Water Curtain. This was in response to an email informing me March 25, 2015 was **the final day to submit letters**, leaving me no time to do justice to the letter. Because of the time limit and my rush to get the letter to you before the deadline, there were a few mistakes that might have clouded the intent of the letter. Thus, I have re-done the letter as per that day, with the proper wording, and it is attached herein. Also attached is my original email which had the typos. Most of the changes were, in fact, typos or for clarification, but the change in paragraph 4 changes the meaning of the paragraph entirely (line 2 should say "no reliable data" rather than "reliable data").

Please put this revised letter with your file. If you have any questions, feel free to call me at (831) 438-1221.

Thank you for your attention to this matter.

DALETTOAMCON

Very truly viol

DHD:jd Enc.

DAWSON, PASSAFUIME, BOWDEN & MARTINEZ

DALE H. DAWSON
PHILLIP A. PASSAFUIME
GERALD D. BOWDEN, *Ret.*KATHLEEN M. MARTINEZ
CHRISTOPHER M. WOLCOTT, *Assoc.*

A LAW CORPORATION 4665 Scotts Valley Drive Scotts Valley, California 95066

(831) 438-1221 FAX (831) 438-2812

March 25, 2015

Corrected email letter to Peter Barnes DATED March 25, 2015

Dear Mr. Barnes:

I am opposed to the recommendation of the Water Board staff as set forth in the Draft EIR. I was an active member of the FERC committee that reviewed PG&E's initial proposal for a cold water curtain that would deliver "heavy water" (water witha low dissolved oxygen content) via the Prattville Intake, through Butt Valley Reservoir, through Caribou, and ultimately to the Feather River. A careful review of the information provided in support of the project by PG&E shows that the reduction in water temperature in the Feather River though this approach is marginal at best. Careful consideration of that proposal and the information developed by experts funded by PG&E should cause any independent person to conclude contrary to the Draft EIR released by the Water Board in November, 2014.

- 1. The project will draw water from below the thermo cline that has a low dissolved oxygen content ("heavy water"). While that water may be desirable to PG&E for purposes of producting electrical energy, the removal will lower the thermo cline and increase the volume of warm water in Lake Almanaor. The result is to reduce, if not eliminate, the cold water haabitat necessary for trout, salmon and other cold water species.
- 2. Reduction of cold water habitat and the fishery supported bythat habitat will have a significant economic impact on the commun ities, and business surrounding Lake Almannor which depend upon the fishery to attract tourism. Almost all businesses, hotels, motels, restaurants, sporting goods stores, gas stations (to mention a few), depend on the trade brought to the community by the fishery. At a time when the area is beginning to recover from the effects of the recent recession, the loss of this business generated by the cold water fishery will have a significant adverse impaact, if not a devastation impact. Finally, real estate values will drop as many of the persons owning property in the Lake Almanor area are there because of this fishery.
- 3. The project will deliver "cold water" through the generators at Butt Lake Reservoir. Again, this is undoubtedly a benefit to PF&E by using the "heavy water", but it will also have an adverse negative impact on Butt

Corrected email letter to Peter Barnes
DATED March 25, 2015
March 25, 2015
Page 2

Valley Reservoir ("Butt Lake"). Butt Lake is a shallow lake that currently sustains a unique trophy trout fishery that is also of economic value to the communities that surround Lake Almanor. Butt Lake, however, is a shallow lake. Among other things, the thermal curtain will cause the "cold water" taken from Lake Almanor to warm significantly as it courses through the 8 miles of shallow water of Butt Lake before it leaves Butt Lake for Caribou, thus minimizing the downstream cooling effect. The water when it arrives from Butt Lake will need to be re-oxygenated to provide a habitat suitable for trout, salmon and other cold water species that depend on high counts of dissolved oxygen. The construction and installation of the system to reintroduce oxygen into the water hasn't been analyzed from the perspective on its effects on the environment. Finally, it was explained that some method of capturing and channeling the cold water through Butt Lake was designed, but it hasn't been analyzed for it's impact on the environment of Butt Lake and its surroundings. Finally, the design could also "kill" Butt Lake as a cold water fishery and valuable recreational resource to the surrounding communities.

4. The science on the project's ability to meaningfully reduce downstream water temperatures is flawed, as there is <u>no</u> reliable data that supports installation of the project to reduce water temperatures. Other alternatives with less environmental impacts exist but are opposed by PG&E.

The proposals to install "Cold Water Curtains" have major adverse impacts on the habitats of Lake Almanor and Butt Valley Reservoir and the ecosystems located therein. Moreover, there are significant adverse impacts on the economy of the communities and their social structure. The only real benefit of these proposals is to PG&E, who will be using "heavy water" to generate electricity. The proposals should be summarily rejected, as there is negligible, if any, benefit to the Feather River system, and that benefit, if any, is at the ecological, social, and financial expense of the two lakes and surrounding communities.

Law offices of: Dawson, Passafuime, Bowden & Martinez

Corrected email letter to Peter Barnes DATED March 25, 2015

March 25, 2015 Page 3

Please share this information with the Board. Also, I would appreciate you keeping me advised on all future matters relating to these projects.

DALE H. DAWSON, Attorney

4665 Scotts Valley Drive Scotts Valley, CA 95066

dale@dpb-law.com (831) 438-1221

Jane Dawson

From:

Dale Dawson

Sent:

Wednesday, March 25, 2015 4:38 PM

To:

Jane Dawson

Subject:

FW: Lake Almanor Cold Water Curtain

From: Dale Dawson

Sent: Wednesday, March 25, 2015 3:52 PM
To: 'Peter.Barnes@waterboards.ca.gov'
Subject: Lake Almanor Cold Water Curtain

Dear Mr. Barnes,

I am opposed to the recommendation of the Water Board staff as set forth in the Draft EIR. I was an active member of the FERC committee that reviewed PG&E's initial proposal for a cold water curtain that would deliver "heavy water" (water with a low dissolved oxygen content) via the Prattville Intake, through Butt Valley Reservoir, through Caribou, and ultimately to the Feather River. A careful review of the information provided in support of the project by PG&E shows that the reduction in water temperature in the Feather River through this approach is marginal at best. Careful consideration of that proposal, and the information developed by experts funded by PG&E should cause any independent person to conclude, contrary to the Draft EIR released by the Water Board in November, 2014.

- 1. The project will draw water from below the thermo cline that has a low dissolved oxygen content ("heavy water"). While that water may be desirable to PG&E for purposes of producing electrical energy, the removal will lower the thermo cline and increase the volume of warm water in Lake Almanor. The result is to reduce, if not eliminate, the cold water habitat necessary for trout, salmon and other cold water species.
- 2. Reduction of cold water habitat and the fishery supported by that habitat will have a significant economic impact on the communities and business surrounding Lake Almanor which depend upon the fishery to attract tourism. Almost all businesses, hotels, motels, restaurants, sporting goods stores, gas stations to mention a few, depend on the trade brought to the community by the fishery. At a time when the area is beginning to recover from the effects of the recent recession, the loss of this business generated by the cold water fishery will have a significant adverse impact, if not a devastating impact. Finally, real estate values will drop as many of the persons owning property in the Lake Almanor area are there because of this fishery development was, on the area.
- 3. The project will deliver "cold water" through the generators at Butt Lake Reservoir. Again, this is undoubtedly a benefit to PG&E by using the "heavy water", but it will also have an adverse negative impact on Butt Valley Reservoir ("Butt Lake"). Butt Lake is a shallow lake that currently sustains a unique trophy trout fishery that is also of economic value to the communities that surround Lake Almanor. Butt Lake, however, is a shallow lake, which among other things will cause the "cold water" taken from Lake Almanor to warm significantly as it courses through the 8 miles of shallow water before it leaves Butt Lake for Caribou, thus minimizing the downstream cooling effect. The water when it arrives from Butt Lake will need to be reoxygenated to provide a habitat suitable for trout, salmon and other cold water species that depend on high counts of dissolved oxygen. The construction and installation of the system to reintroduce oxygen into the water hasn't been analyzed from the perspective on its effects on the environment. Finally, it was explained that some method of capturing and channeling the cold water through Butt Lake was designed but it hasn't been analyzed for it's impact on the environment of Butt Lake and its surroundings. Finally, the design could also "kill" Butt Lake as a cold water fishery and valuable recreational resource to the surrounding communities.
- 4. The science on the projects ability to meaningfully reduce downstream water temperatures is flawed as there is reliable data that supports installation of the project to reduce water temperatures. Other alternatives with less environmental impacts exist but are opposed by PG&E.

The proposals to install "Cold Water Curtains" have major adverse impacts on the habitats of Lake Almanor and Butt Valley Reservoir and the ecosystems located therein. Moreover, there are significant adverse impacts on the economy of the communities and their social structure. The only real benefit of these proposals is to PG&E who will be using "heavy water" to generate electricity. The proposals should be summarily rejected as their is negligible, if any, benefit to the Feather River system, and that benefit, if any, is at the ecological, social, and financial expense of the two lakes and surrounding communities.

Please share this information with the Board. Also, I would appreciate you keeping me advised on all future matters relating to these projects.

Dale H. Dawson Attorney

Barnes, Peter@Waterboards

From: Dale Dawson <dale@dpb-law.com>
Sent: Wednesday, March 25, 2015 3:52 PM

To: Barnes, Peter@Waterboards
Subject: Lake Almanor Cold Water Curtain

Dear Mr. Barnes.

I am opposed to the recommendation of the Water Board staff as set forth in the Draft EIR. I was an active member of the FERC committee that reviewed PG&E's initial proposal for a cold water curtain that would deliver "heavy water" (water with a low dissolved oxygen content) via the Prattville Intake, through Butt Valley Reservoir, through Caribou, and ultimately to the Feather River. A careful review of the information provided in support of the project by PG&E shows that the reduction in water temperature in the Feather River through this approach is marginal at best. Careful consideration of that proposal, and the information developed by experts funded by PG&E should cause any independent person to conclude, contrary to the Draft EIR released by the Water Board in November, 2014.

- 1. The project will draw water from below the thermo cline that has a low dissolved oxygen content ("heavy water"). While that water may be desirable to PG&E for purposes of producing electrical energy, the removal will lower the thermo cline and increase the volume of warm water in Lake Almanor. The result is to reduce, if not eliminate, the cold water habitat necessary for trout, salmon and other cold water species.
- 2. Reduction of cold water habitat and the fishery supported by that habitat will have a significant economic impact on the communities and business surrounding Lake Almanor which depend upon the fishery to attract tourism. Almost all businesses, hotels, motels, restaurants, sporting goods stores, gas stations to mention a few, depend on the trade brought to the community by the fishery. At a time when the area is beginning to recover from the effects of the recent recession, the loss of this business generated by the cold water fishery will have a significant adverse impact, if not a devastating impact. Finally, real estate values will drop as many of the persons owning property in the Lake Almanor area are there because of this fishery.development was , on the area.
- 3. The project will deliver "cold water" through the generators at Butt Lake Reservoir. Again, this is undoubtedly a benefit to PG&E by using the "heavy water", but it will also have an adverse negative impact on Butt Valley Reservoir ("Butt Lake"O). Butt Lake is a shallow lake that currently sustains a unique trophy trout fishery that is also of economic value to the communities that surround Lake Almanor. Butt Lake, however, is a shallow lake, which among other things will cause the "cold water" taken from Lake Almanor to warm significantly as it courses through the 8 miles of shallow water before it leaves Butt Lake for Caribou thus minimizing the downstream cooling effect. The water when it arrives from Butt Lake will need to be reoxygenated to provide a habitat suitable for trout, salmon and other cold water species that depend on high counts of dissolved oxygen. The construction and installation of the system to reintroduce oxygen into the water hasn't been analyzed from the perspective on its effects on the environment. Finally, it was explained that some method of capturing and channeling the cold water through Butt Lake was designed but it hasn't been analyzed for it's impact on the environment of Butt Lake and its surroundings. Finally, the design could also "kill" Butt Lake as a cold water fishery and valuable recreational resource to the surrounding communities..
- 4. The science on the projects ability to meaningfully reduce downstream water temperatures is flawed as there is reliable data that supports installation of the project to reduce water temperatures. Other alternatives with less environmental impacts exist but are opposed by PG&E.

The proposals to install "Cold Water Curtains" have major adverse impacts on the habitats of Lake Almanor and Butt Valley Reservoir and the ecosystems located therein. Moreover, there are significant adverse impacts on the economy of the communities and their social structure. The only real benefit of these proposals is to PG&E who will be using "heavy water" to generate electricity. The proposals should be summarily rejected as their is negligible, if any, benefit to the Feather River system, and that benefit, if any, is at the ecological, social, and financial expense of the two lakes and surrounding communities.

Please share this information with the Board. Also, I would appreciate you keeping me advised on all future matters relating to these projects.

Dale H. Dawson Attorney