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Attorneys for Plaintiff
ECOLOGICAL RIGHTS FOUNDATION

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

ECOLOGICAL RIGHTS FOUNDATION, a non-profit corporation, Plaintiff, v. NATIONAL MARINE FISHERIES SERVICE, Defendant.	Case No. 3:18-cv-00888-JSC **REPLY DECLARATION OF PATRICIA LINN IN SUPPORT OF PLAINTIFF'S MOTION FOR SUMMARY JUDGMENT**

I, Patricia Linn, hereby declare and state as follows:

1. I represent Plaintiff Ecological Rights Foundation ("EcoRights") in the above-referenced action. I make this Reply Declaration in Support of Plaintiff's Motion for Summary Judgment.

2. On May 8, 2018, I sent an email to Defendant National Marine Fisheries Service ("NMFS")'s counsel, Jennifer Wang, requesting further details about NMFS's search for records responsive to EcoRights' FOIA request. I informed Ms. Wang that documents NMFS had released in response to the FOIA request indicate the presence of NOAA Office of Law Enforcement ("OLE") documents that were not located in the search. I attached seven documents to this email. Attached hereto as Exhibit 1 is a true and correct copy of my May 8, 2018 email to Ms. Wang.

3. Attached hereto as Exhibit 2 is a true and correct copy of an attachment to my May 8, 2018 email to Ms. Wang. This attachment is a document that NMFS released in response to EcoRights' FOIA request. NMFS numbered this document 0.7.1707.5075. This document is an email chain dated October 21, 2015 from Larry Thompson, a NMFS Fishery Biologist, to a number of NMFS staff, including OLE agent Don Tanner. I added the yellow highlighting to the document to direct Ms. Wang's attention to the pertinent parts of the email chain. The emails concern the stranding of nine Chinook salmon in a pool below the Narrows 2 powerhouse and an attempt to rescue the fish. In the email Mr. Thompson expresses concern that the fish may be ESA-listed spring-run Chinook. This document indicates Mr. Thompson contacted Agent Tanner about the "potential unauthorized take of ESA-listed species" and intended to "continue to keep in touch with him" about the stranding and attempted rescue.

4. Attached hereto as Exhibit 3 is a true and correct copy of an attachment to my May 8, 2018 email to Ms. Wang. This attachment is a document that NMFS released in response to EcoRights' FOIA request. NMFS numbered this document 0.7.1707.5102. This document is an email chain dated October 21, 2015. I added the yellow highlighting to the document to direct Ms. Wang's attention to the pertinent part of the email chain. The email at the top of the chain is from Larry Thompson to Anna Ewing, who I

believe was, at the time, with the California Department of Fish and Wildlife ("CDFW"). The email concerns the stranding of Chinook salmon in a pool below the Narrows 2 powerhouse, the same stranding event discussed in the Exhibit 2 email chain. Mr. Thompson states "I just spoke with Don Tanner (NOAA Law Enforcement) and he asked me if CDFW has been contacted about this event. This is why I am forwarding this email to you."

5. Attached hereto as Exhibit 4 is a true and correct copy of an attachment to my May 8, 2018 email to Ms. Wang. This attachment is a document that NMFS released in response to EcoRights' FOIA request. NMFS numbered this document 0.7.1707.5300. This document is a chain of emails between October 22, 2015 and October 27, 2015 from Larry Thompson, NMFS Fishery Biologist, to a number of NMFS staff including OLE agent Don Tanner. I added the yellow highlighting to the document to direct Ms. Wang's attention to the pertinent part of the email chain. This document pertains to the same fish stranding event and attempted rescue discussed in Exhibits 2 and 3. Mr. Thompson states, "CDFW discovered 6 adult Chinook salmon carcasses along the edge of the same pool, which they recovered for later analysis."

6. The emails in Exhibits 2, 3, and 4 indicate that Mr. Thompson spoke to Agent Tanner about the fish stranding event that occurred in October 2015 and continued to follow up with him about the attempted rescue of stranded fish. The emails indicate Agent Tanner told Mr. Thompson to contact the CDFW about the stranding, and after the stranding CDFW collected salmon carcass remains. These emails indicate some OLE record keeping of this event and sharing of information between CDFW and the OLE. However, OLE did not release any records of its own about the October 2015 stranding event and fish mortality, although Mr. Thompson indicated he contacted Agent Tanner numerous times and received direction from him about how to proceed.

7. One of the attachments to my May 8, 2018 email to Ms. Wang. was Exhibit B from EcoRights' motion for summary judgment. *See* Dkt. 12-3. This document was released by NMFS in response to

EcoRights' FOIA request. This document is an email chain from Larry Thompson to OLE agent Don Tanner. I added the yellow highlighting in this document to direct Ms. Wang's attention to the pertinent parts of the email chain. Although, Agent Tanner's name is redacted in the version of this email chain that was submitted as Exhibit B, and that was attached to my May 8, 2018 email, NMFS has now released this document in full, which reveals that Agent Tanner was the person whose name was redacted in these emails. *See* Dkt. 26-1 at 11-12. The email chain contains a February 13, 2014 email from Mr. Thompson to Agent Tanner pertaining to "Chinook salmon stranding events downstream of Englebright Dam that you and I discussed in November 2013." Mr. Thompson indicates he has written a letter to FERC about the fish stranding events which includes a request for a response from FERC about salmon carcass remains that have been collected and other evidence. The email chain also contains Agent Tanner's reply to Mr. Thompson in which he indicates he is keeping track of Mr. Thompson's reports.

8. Attached hereto as Exhibit 5 is a true and correct copy of an attachment to my May 8, 2018 email to Ms. Wang. This attachment is a portion of one of the documents that NMFS released in response to EcoRights' FOIA request. NMFS numbered this document 0.7.1707.5394. I added the yellow highlighting to direct Ms. Wang's attention to the pertinent parts of the document which is a February 2014 letter from NMFS to FERC about fish stranding events that had occurred in the vicinity of the Narrows 2 powerhouse. The letter states that "NOAA Law Enforcement has advised our staff to request that FERC's compliance staff determine if any salmon carcass remains have been collected and retained by an entity. We ask that you provide this information to NMFS, following your interviews, data gathering, and document reviews associated with your inquiry."

9. Taken together, the emails in Exhibit B and the letter in Exhibit 5 indicate, at the very least, the presence of OLE record keeping of the 2013 fish strandings and potential collection of physical evidence. However, OLE's search did not locate any records that demonstrate Agent Tanner, or anyone

else at OLE, is keeping track of these fish strandings as Agent Tanner indicated in his February 2014 email that he is doing.

10. EcoRights is a public advocacy group that intends to continue its advocacy work on behalf of ESA-listed anadromous fish that are within NMFS's jurisdiction. EcoRights has sent NMFS several FOIA requests in the past concerning ESA-listed anadromous fish, and thus will almost certainly send additional FOIA requests to NMFS in the future.

11. In this case, only NMFS has access to the material facts related to the adequacy of its search. Without discovery, EcoRights is limited to the description of the search in the Graff declaration.

12. I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct, and that this Declaration was executed on June 8, 2018 in Mill Valley, California.

/s/ Patricia Linn
Patricia Linn
Counsel for Plaintiff
Ecological Rights Foundation

Linn Reply Declaration

EXHIBIT 1

Gmail

Patricia Linn <patricialinn19@gmail.com>

ERF v. NMFS

Patricia Linn <patricialinn19@gmail.com> Tue, May 8, 2018 at 6:53 PM
To: "Wang, Jennifer (USACAN)" <Jennifer.S.Wang@usdoj.gov>
Cc: Chris Sproul <csproul@enviroadvocates.com>

Jennifer,

Thank you for providing the list of NMFS search terms and parameters. However, further details are still needed to assess whether the searches were adequate.**First, it appears all searches were conducted electronically, using key words to search network drives. Were other record systems searched** for handwritten notes, audio recordings, physical evidence of dead salmon or steelhead, types of information which may not be in the computer systems that were searched? EcoRights has requested records back to January 1, 2000. Were paper records searched? EcoRights would like to know which records systems were searched and who searched which records systems. Such information describing the search would be required in affidavits to the court.

Second, EcoRights suggests the following additional search terms relevant to take of Yuba River fish species: Yuba County Water Agency, YCWA, FERC, poach, and impinge.

Third, documents that NMFS released indicate the presence of other OLE documents that were not located in the search (see attached):
1) an email from Larry Thompson from the NMFS Hydro staff discussing contacting OLE agent, Don Tanner, in November 2013 about fish strandings, a letter from NMFS to FERC in February 2014 which states the OLE advised NMFS staff to ask the FERC Compliance division if any entity has collected and retained salmon carcass remains as a result of the strandings and to provide that information to NMFS, and a February 2014 email from Don Tanner to Larry Thompson indicating Mr. Tanner is keeping track of the stranding reports. Taken together these 3 documents indicate, at the very least, the presence of OLE record keeping of the 2013 fish strandings and potential collection of evidence;

2) an email from Larry Thompson indicating that he and Don Tanner went on a site visit of the Yuba River in September 2014 to investigate poaching and observe hazards causing fish strandings near Narrows 2. If Mr. Tanner went on a site visit it stands to reason there is some record of his observations, either handwritten notes, photographs, and/or a followup memo or report;

3) a series of emails on October 21, 2015 that Don Tanner was copied on, about a fish stranding in October 2015 indicating Larry Thompson spoke to Mr. Tanner about the event and continued to follow up with him about the attempted rescue of stranded fish. The emails indicate Mr. Tanner told Mr. Thompson to contact CDFW about the stranding, and after the stranding CDFW collected salmon carcass remains. These emails indicate some OLE record keeping of this event and sharing of information between CDFW and the OLE.

Despite these indications that OLE has been keeping track of strandings caused by Narrows 1 and 2, advising NMFS staff about how to proceed in the wake of the strandings, seeking evidence of dead fish, investigating poaching on the Yuba River, and going on a site visit to the Yuba, the OLE asserts it does not have a single record of its own about these incidents of unauthorized take.

Given these concerns is NMFS amenable to doing another search? Please let me know how you would like to proceed. I am available tomorrow until noon and most of the day on Thursday and Friday.

Patti

Law Office of Patricia Linn
115 Oakdale Avenue
Mill Valley, CA 94941
(415) 388-2303

[Quoted text hidden]

7 attachments

0.7.1707.5075-I'll continue to stay in touch with Don.pdf
111K

0.7.1707.5102-Thompson email re. contacting enforcement.pdf
94K

0.7.1707.5300-LT email chain re. six dead fish.pdf
109K

filed Ex. H.pdf
534K

0.7.1707.5394-NMFS letter re. 2013 strandings.pdf
280K

filed Ex. A.pdf
106K

filed Ex. B.pdf
119K

Linn Reply Declaration

EXHIBIT 2

From: Larry Thompson - NOAA Federal <larry.thompson@noaa.gov>
Sent: Wednesday, October 21, 2015 12:58 PM
To: Howard Brown - NOAA Federal
Cc: Gary Sprague - NOAA Federal; Tom Holley; Jeff McLain - NOAA Federal; Jonathan Ambrose - NOAA Federal; Edmondson, Steve; John Wooster; Don Tanner - NOAA Federal; John Aedo
Subject: Re: Potential fish rescue on the Yuba

Hi HOward,

I'll continue to keep in touch with Don, and follow up to see what CDFW plans and carries out.

Without having to contact the Corps or YCWA, the area in question can be viewed from a lookout above Englebright Dam. I am contemplating a visit tomorrow, with camera and binoculars in hand...

LT

On Wed, Oct 21, 2015 at 11:19 AM, Howard Brown - NOAA Federal <howard.brown@noaa.gov> wrote:
Thanks Gary. I appreciate the follow up and agree that it is CDFWs hands from here out.
Howard

Sent from my iPhone

On Oct 21, 2015, at 11:17 AM, Gary Sprague - NOAA Federal <gary.sprague@noaa.gov> wrote:

> Hello Tom,
> I do not have the flow details. Geoff said that the bypass operated longer than planned, because of equipment difficulties at Narrows I.
>
> At this point we are leaving the decision on any action(s) up to CDFW. They have indicated they will have people on site today.
> Gary
>
> Gary R. Sprague
> Fish Biologist
> NOAA Fisheries West Coast Region
> U.S. Department of Commerce
> 650 Capitol Mall, Suite 5-100
> Sacramento, CA 95814-4706
> **(916) 930-3615** fax (916) 930-3629
> gary.sprague@noaa.gov
> http://www.westcoast.fisheries.noaa.gov/
>
> On Wed, Oct 21, 2015 at 10:59 AM, Tom Holley <thomas.holley@noaa.gov> wrote:
> Gary,

I would also request from Geoff flow records from all the Narrows facilities over the past two months. From my current understanding none of the facilities, including the full bypass, have been used since September 9. If that is the case then the fish were attracted to the Narrows 2 bypass pool by nothing other than seepage from Englebright- a situation that none of the potential remedies will stop from happening again, regardless of how these fish are rescued.

Thanks,

Tom

On Wed, Oct 21, 2015 at 10:27 AM, Gary Sprague - NOAA Federal <gary.sprague@noaa.gov> wrote:
No, this is an adjacent pool. This pool is where water is discharged, that result in rock be washed up and creating the pool project we recently consulted on.
Gary

Gary R. Sprague
Fish Biologist
NOAA Fisheries West Coast Region
U.S. Department of Commerce
650 Capitol Mall, Suite 5-100
Sacramento, CA 95814-4706
(916) 930-3615 fax (916) 930-3629
gary.sprague@noaa.gov
http://www.westcoast.fisheries.noaa.gov/

On Wed, Oct 21, 2015 at 10:04 AM, Howard Brown - NOAA Federal <howard.brown@noaa.gov> wrote:
Thanks for the heads up on this Gary and Jeff for the guidance on fish rescues. I will offer to follow up with Collin Purdy on that. Gary, is this the same pool where we just completed the consultation to fill it in? I am wondering if this might be a good opportunity to move the fish out and fill in the pool.
Howard

Sent from my iPhone

On Oct 21, 2015, at 9:51 AM, Jeff McLain - NOAA Federal <jeff.mclain@noaa.gov> wrote:

> Hi all - I am in Portland and on e-mail. I would pursue your FERC-related notifications as you suggest. Regarding the potential rescue, I would start by notifying your DFW contacts as they technically have the lead on fish rescues. They have the staff and expertise. They will need to go through a bit of an internal process, including the development of a rescue plan. If they agree to pursue a rescue, we need to approve if there are listed species present. Easy enough to use

the 4(d) rule if they are threatened. I am attaching the fish rescue agreement. I am learning to like the two-agency approach to these. I know they take more coordination, but fish rescues are so controversial. It is nice to get us fish agencies on the same page...Let me know if you have any questions.

Jeffrey McLain
Division Manager
NOAA Fisheries West Coast Region
U.S. Department of Commerce
Office: 916 930-5647
Mobile: 916 600-5410
Jeff.McLain@noaa.gov

Find us online
www.westcoast.fisheries.noaa.gov

On Wed, Oct 21, 2015 at 9:19 AM, Larry Thompson - NOAA Federal <larry.thompson@noaa.gov> wrote:
Hi Gary,

My first thought is this has happened several times (that we know) in the past few years, and has been reported to FERC's Office of Compliance. It is not clear that FERC has been contacted about this current event, and so I am copying John Aedo (FERC) on this email.

My second thought is that the stranded fish may be ESA-listed spring-run Chinook. My understanding is our (NMFS) protocol is to contact NOAA Law Enforcement about the potential unauthorized take of ESA-listed species. For this reason I am copying Don Tanner (NOAA Law Enforcement) on this email, and will also phone him in the coming few minutes.

Thanks,

Larry

On Wed, Oct 21, 2015 at 9:08 AM, Gary Sprague - NOAA Federal <gary.sprague@noaa.gov> wrote:
Hello,
I just got a call from Geoff Rabone at Yuba County Water Agency. The Narrows II powerhouse is currently shut down, and 9 Chinook are isolated in the pool below the Narrows II full bypass and powerhouse. While there is some small surface flow, it does not provide enough depth for fish to easily move downstream. The substrate at the location is not good for spawning, and subject to scour from powerhouse/valve operations. YCWA is looking at a few options for addressing getting the fish downstream:

1. Move some rocks downstream of the pool, to create a better path for fish to move downstream.

2. Use divers and a seine to collect and transport the Chinook to the flowing part of the river.
3. Add some water to the area (there are concerns that this would attract more fish to the pool)

YCWA is talking about potentially implementing option number 2 today or later this week (likely not before tomorrow). I told Geoff that option 1 sounds best, but if they go with option 2, they need to contact Jeff McLain, our fish rescue coordinator (I then found out Jeff is out of the office today and tomorrow).

Any thoughts or guidance? I am always up for some field work.

Gary

Gary R. Sprague
Fish Biologist
NOAA Fisheries West Coast Region
U.S. Department of Commerce
650 Capitol Mall, Suite 5-100
Sacramento, CA 95814-4706
(916) 930-3615 fax (916) 930-3629
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--
Larry Thompson
Fishery Biologist
NOAA Fisheries West Coast Region
U.S. Department of Commerce
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larry.thompson@noaa.gov

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<5.19.14 CA Interagency Fish Rescue Agreement FINAL.pdf>

--
Tom Holley | Hydrologist
NOAA Fisheries West Coast Region
U.S. Department of Commerce
Office:(916) 930-5592
thomas.holley@noaa.gov

--
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larry.thompson@noaa.gov

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Linn Reply Declaration

EXHIBIT 3

From: Larry Thompson - NOAA Federal <larry.thompson@noaa.gov>
Sent: Wednesday, October 21, 2015 9:36 AM
To: Anna Ewing
Cc: Gary Sprague - NOAA Federal; Steve Edmondson - NOAA Federal; Lynch, MaryLisa@Wildlife
Subject: Fwd: Potential fish rescue on the Yuba

Hi Anna,

I just spoke with Don Tanner (NOAA Law Enforcement), and he asked me if CDFW has been contacted about this event. This is why I am forwarding this email to you.

Thanks,

Larry

---------- Forwarded message ----------
From: **Larry Thompson - NOAA Federal** <larry.thompson@noaa.gov>
Date: Wed, Oct 21, 2015 at 9:19 AM
Subject: Re: Potential fish rescue on the Yuba
To: Gary Sprague - NOAA Federal <gary.sprague@noaa.gov>
Cc: "Howard.Brown" <Howard.Brown@noaa.gov>, Jeff McLain <Jeff.McLain@noaa.gov>, Jonathan Ambrose - NOAA Federal <jonathan.ambrose@noaa.gov>, "Edmondson, Steve" <steve.edmondson@noaa.gov>, Thomas Holley <thomas.holley@noaa.gov>, John Wooster <john.wooster@noaa.gov>, Don Tanner - NOAA Federal <don.tanner@noaa.gov>, John Aedo <john.aedo@ferc.gov>

Hi Gary,

My first thought is this has happened several times (that we know) in the past few years, and has been reported to FERC's Office of Compliance. It is not clear that FERC has been contacted about this current event, and so I am copying John Aedo (FERC) on this email.

My second thought is that the stranded fish may be ESA-listed spring-run Chinook. My understanding is our (NMFS) protocol is to contact NOAA Law Enforcement about the potential unauthorized take of ESA-listed species. For this reason I am copying Don Tanner (NOAA Law Enforcement) on this email, and will also phone him in the coming few minutes.

Thanks,

Larry

On Wed, Oct 21, 2015 at 9:08 AM, Gary Sprague - NOAA Federal <gary.sprague@noaa.gov> wrote:
Hello,
I just got a call from Geoff Rabone at Yuba County Water Agency. The Narrows II powerhouse is currently shut down, and 9 Chinook are isolated in the pool below the Narrows II full bypass and powerhouse. While there is some small surface flow, it does not provide enough depth for fish to easily move downstream. The

substrate at the location is not good for spawning, and subject to scour from powerhouse/valve operations. YCWA is looking at a few options for addressing getting the fish downstream:

1. Move some rocks downstream of the pool, to create a better path for fish to move downstream.
2. Use divers and a seine to collect and transport the Chinook to the flowing part of the river.
3. Add some water to the area (there are concerns that this would attract more fish to the pool)

YCWA is talking about potentially implementing option number 2 today or later this week (likely not before tomorrow). I told Geoff that option 1 sounds best, but if they go with option 2, they need to contact Jeff McLain, our fish rescue coordinator (I then found out Jeff is out of the office today and tomorrow).

Any thoughts or guidance? I am always up for some field work.

Gary

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Linn Reply Declaration

EXHIBIT 4

From: Larry Thompson - NOAA Federal <larry.thompson@noaa.gov>
Sent: Tuesday, October 27, 2015 12:05 PM
To: Maria Rea - NOAA Federal; Jeff McLain - NOAA Federal; Steve Edmondson - NOAA Federal; Thomas Holley - NOAA Federal; John Wooster - NOAA Federal; Don Tanner - NOAA Federal; Jonathan Ambrose - NOAA Federal; William Foster - NOAA Federal; Howard Brown - NOAA Federal; Gary Sprague - NOAA Federal
Subject: Fwd: Status Update on Full Bypass Shutdown at Narrows 2 PH on Lower Yuba River

To all:

I received a phone call this morning from CDFW, and the conversation included an update on yesterday's fish rescue (see background below). While more formal notification may be coming from CDFW, I wanted you to know:

CDFW biologists discovered only 2 live adult Chinook salmon stranded in the isolated pool downstream of Englebright. They seined/netted these fish, and rescued them by placing them in the Yuba River downstream.

CDFW discovered 6 adult Chinook salmon carcasses along the edge of the same pool, which they recovered for later analysis.

I plan to await CDFW's written notification before reporting anything to FERC or Corps' personnel.

Regards,

Larry

---------- Forwarded message ----------
From: **Purdy, Colin@Wildlife** <Colin.Purdy@wildlife.ca.gov>
Date: Mon, Oct 26, 2015 at 8:15 AM
Subject: RE: Status Update on Full Bypass Shutdown at Narrows 2 PH on Lower Yuba River
To: Geoff Rabone <grabone@ycwa.com>, "Rea, Maria@NOAA" <Maria.Rea@noaa.gov>, Jeff McClain <jeff.mclain@noaa.gov>, "steve.edmondson@noaa.gov" <steve.edmondson@noaa.gov>, "Larry.Thompson@noaa.gov" <Larry.Thompson@noaa.gov>, "Debbie.Giglio@fws.gov" <Debbie.Giglio@fws.gov>, "Thaler, Parker@Waterboards" <parker.thaler@waterboards.ca.gov>, "Lynch, MaryLisa@Wildlife" <MaryLisa.Lynch@wildlife.ca.gov>, "Ewing, Anna@Wildlife" <Anna.Ewing@wildlife.ca.gov>, "Hoobler, Sean@Wildlife" <Sean.Hoobler@wildlife.ca.gov>, "Tierney, Marilyn -FS" <mtierney@fs.fed.us>, "Gary.Sprague@noaa.gov" <Gary.Sprague@noaa.gov>
Cc: "Aikens, Curt@YCWA" <caikens@ycwa.com>, "Lynch, Jim" <Jim.Lynch@hdrinc.com>, "Passovoy, Joel" <Joel.Passovoy@hdrinc.com>, Maury Miller <mmiller@ycwa.com>, Marcel Bos <mbos@ycwa.com>

Good morning Geoff,

After evaluating the situation we've decided to proceed with a fish rescue. The main drivers in this are the small number of adults returning to the Yuba this year and limited ability of the stranded fish to successfully

spawn. Additionally, as it looks like the pool became isolated around the 6th of October, there is the potential that these are spring-run Chinook salmon.

If possible we would like to move forward with the rescue today. I'm hoping you can help provide access to the dam. I know there is a gate we'll need to get through. I'll try calling you shortly.

Thanks,

Colin Purdy, M.S.

Supervisor - Low Elevation Fisheries

CA Department of Fish and Wildlife - North Central Region

1701 Nimbus Rd., Rancho Cordova, CA I Phone (916) 704-2154 I Fax (916) 358-2912

https://www.wildlife.ca.gov/

From: Purdy, Colin@Wildlife
Sent: Thursday, October 22, 2015 12:14 PM
To: 'Geoff Rabone'; Rea, Maria@NOAA; Jeff McClain; steve.edmondson@noaa.gov; Larry.Thompson@noaa.gov; Debbie.Giglio@fws.gov; Thaler, Parker@Waterboards; Lynch, MaryLisa@Wildlife; Ewing, Anna@Wildlife; Hoobler, Sean@Wildlife; Tierney, Marilyn -FS; Gary.Sprague@noaa.gov
Cc: Aikens, Curt@YCWA; Lynch, Jim; Passovoy, Joel; Maury Miller; Marcel Bos
Subject: RE: Status Update on Full Bypass Shutdown at Narrows 2 PH on Lower Yuba River

Geoff,

Thanks for sending this information around and I appreciate the coordination. As I mentioned on the phone yesterday, we are still evaluating next steps. Just to clarify, based on the initial site visit, it did not appear there was an imminent threat of fish perishing. There still may be a need for intervention and we will let you know as this develops.

Thanks,

Colin Purdy, M.S.

Supervisor - Low Elevation Fisheries

CA Department of Fish and Wildlife - North Central Region

1701 Nimbus Rd., Rancho Cordova, CA 95670 I Phone (916) 704-2154 I Fax (916) 358-2912

https://www.wildlife.ca.gov/

From: Geoff Rabone [mailto:grabone@ycwa.com]
Sent: Thursday, October 22, 2015 8:37 AM
To: Rea, Maria@NOAA; Jeff McClain; steve.edmondson@noaa.gov; Larry.Thompson@noaa.gov; Debbie.Giglio@fws.gov; Purdy, Colin@Wildlife; Thaler, Parker@Waterboards; Lynch, MaryLisa@Wildlife; Ewing, Anna@Wildlife; Hoobler, Sean@Wildlife; Tierney, Marilyn -FS; Gary.Sprague@noaa.gov
Cc: Aikens, Curt@YCWA; Lynch, Jim; Passovoy, Joel; Maury Miller; Marcel Bos; Geoff Rabone
Subject: Status Update on Full Bypass Shutdown at Narrows 2 PH on Lower Yuba River

Hello,

I appreciate everyone's interest and assistance in evaluating and advising YCWA about a small group of Chinook salmon that are currently residing in a pool directly below the Full Bypass at our Narrows 2 Powerhouse. HDR Engineering helped YCWA prepare this memo to bring everyone up to speed and provide the currently available information.

As background, PG&E's Narrows (1) Powerhouse (PH) and YCWA's Narrows 2 PH typically undergo outages in the fall when flows are generally low. This year, both outages were extended, and Narrows 2 is currently offline while new parts are being obtained. Because Narrows 2 was not operating, and while Narrows 1 was still in outage, all flow in the lower Yuba River was being provided through the Narrows 2 Full Bypass. Now Narrows 1 is back online, after extended repairs and testing. As Narrows 1 was put back into service and testing was performed, the Narrows 1 PH took on more flow. Flow through the Narrows 2 Full Bypass was used to supplement flows through the Narrows 1 PH during testing. Once testing was successfully completed, flow was transferred over to Narrows 1 completely. That brings you up to the point in time that the attached status report begins. I am out in the field today, but am happy to provide more explanation or receive any advice you care to offer, when I return.

--
Larry Thompson
Fishery Biologist
NOAA Fisheries West Coast Region
U.S. Department of Commerce

Office Phone: 916-930-3613
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EXHIBIT 5

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

West Coast Region

9 5

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Washington, D.C. 20426.

RE: NMFS Response to the Information Request of the Commission's Division of Hydropower Administration and the Response of the Yuba County Water Agency, Regarding Salmon Stranding Incidents Downstream of the Narrows 2 Development, Yuba River Development Project, P-2246-061.

Dear Secretary Bose,

NOAA's National Marine Fisheries Service (NMFS) has reviewed the request (November 25, 2013) of the Federal Energy Regulatory Commission regarding salmon stranding in the lower Yuba River, downstream of Englebright Dam and near the Narrows 2 Development facilities operated under a FERC license for the Yuba River Project (P-2246).

Our comments and suggestions are enclosed.

If you have questions about NMFS'response, please contact Mr. Larry Thompson, at 916-930-3613.

Sincerely,

Steve Edmondson
Hydropower Program Supervisor
West Coast Region

Enclosures

cc: Maria Rea, Don Tanner, Steve Edmondson, Howard Brown, NMFS Sacramento, CA

NOAA's National Marine Fisheries Service (NMFS) has reviewed the request (November 25, 2013) of the Federal Energy Regulatory Commission (Commission or FERC) regarding salmon stranding in the lower Yuba River, downstream of Englebright Dam and near the Narrows 2 Development facilities operated under a FERC license for the Yuba River Project (P-2246).

Background:

FERC's information request was prompted by an email from NMFS (Larry Thompson) to FERC staff (Ken Hogan) on November 1, 2013 (attached). Mr. Thompson's email was not a detailed report of the incident(s), but rather a notification to FERC that NMFS had become aware of salmon strandings -- events that had not been reported to our agency by FERC staff or by Yuba County Water Agency (YCWA), the Project licensee. Aside from notifying FERC, a second purpose of NMFS'notification was to gain a greater understanding about how Project operations played a role in the salmon strandings. Mr. Hogan responded directly to Mr. Thompson (by telephone on November 4, 2013), informing NMFS that he considered the issue to be one of existing license compliance and therefore had contacted Mr. John Aedo, Division of Hydropower Administration and Compliance.

NMFS'concern is that two Endangered Species Act (ESA)-listed species (spring-run Chinook salmon and Central Valley steelhead), as well as their ESA-designated critical habitats, are directly influenced by the Project facilities in question (the Narrows 2 Powerhouse, Narrows 2 Partial Bypass, and Full Flow Bypass) as well as by the Narrows Powerhouse of the Narrows Project (P-1403). Fall-run Chinook salmon are also found in this area, which is also identified as "essential fish habitat" (Magnuson-Stevens Fishery Management Act) for Chinook salmon. A third ESA-listed species, the North American green sturgeon, is not known to currently exist upstream of Daguerre Dam (~12 miles downstream), but could in the future inhabit the area where the strandings occurred. Therefore, understanding the environmental effects of the Project's facilities and operations in the area directly downstream of Englebright Dam appears relevant to both: 1) the suitability of existing license conditions for anadromous fish resources; and 2) the development of new conditions for the new FERC license sought by YCWA; the license expiration date is April 30, 2016, and an Integrated Licensing Process is currently underway.

Prior to the commissioning of the Full Flow Bypass into service in January, 2007, when the Narrows 2 Powerhouse was shut down the Narrows 2 Partial Bypass was capable of releasing a maximum of 650 cubic feet per second (cfs) of flow. Emergency shutdowns at the Narrows 2 Powerhouse caused by lightning or other acts of nature could reduce flows into the lower Yuba River until the Powerhouse could be brought back on-line. To improve the situation, the CALFED program financed approximately $8.5 million of the Full Flow Bypass project's costs through California Resources Agency grants, while YCWA financed the local share of more than $4 million. The Full Flow Bypass was envisioned to "ensure a continuous release of cold water flows into the lower Yuba River for protected fall-run Chinook salmon, spring run Chinook salmon and steelhead, in the event of emergency outages or during scheduled maintenance." (See attached CALFED Fact Sheet).

We provide the following comments regarding the Commission's request, and the YCWA response.

1) Until notified by NMFS, FERC's Division of Hydropower Administration and Compliance was unaware of salmon strandings downstream of the Englebright Dam, near and subject to the operations of the Project's Narrows 2 Powerhouse, Narrows 2 Partial Bypass, and Full Flow Bypass facilities. This is a shortcoming of the existing license in need of correction. YCWA's response states a willingness to discuss procedures for contacting NMFS when YCWA observes stranding or other potential harm to anadromous fishes. We strongly recommend FERC lead this discussion, to assure that the lead agency (FERC) is notified, as well as NMFS. In any case, both FERC and NMFS should be notified; protocols should be established to account for cases where agency personnel are not present to receive notification in real-time, or person-to-person.

2) The Project's Narrows 2 Powerhouse, Narrows 2 Partial Bypass, and Full Flow Bypass facilities appear to be operated for purposes that FERC did not envision in its Order Modifying and Approving Amendment of License (November 22, 2005), issued to amend the Project license to include the installation of the Full Flow Bypass. This can be observed by reviewing the descriptions of Project operations in YCWA's response (including footnote 6, page 3), which do not correlate well with the following text from the 2005 Order:

> "Three types of shutdowns can take place at the Narrows 2 development. Short-term emergency shutdowns can be caused by momentary failure of the PG&E transmission line as a result of interference by birds, fire, lightning, storm, failure of transmission equipment, or by a momentary plant malfunction. Flows can be reduced from 3,400 cfs to 0-650 cfs for a period ranging from about a minute to more than an hour. Although corrective actions have been taken by both the licensee and PG&E to minimize shutdowns of this type, they still can occur. Long-term emergency shutdowns can result from catastrophic failure of the PG&E transmission system that links the plant to the transmission grid or from major component failure at the plant. Flows through the plant can be reduced from 3,400 cfs to 0-650 cfs, depending on whether the malfunction allows the bypass to be operated. Such shutdowns are rare (two in the last 30 years) but could last from days to months. Partial downstream flow can be restored through the PG&E Narrows 1 Powerhouse within about 30-60 minutes, and full downstream flow can be resumed in 1-2 days by allowing water to spill over the top of Englebright Dam. High spill rates between May and October, however, can increase downstream temperatures. Maintenance activity shutdowns are required for generator brush replacement, which in the past involved a 6-hour shutdown two or three times per year, and annual maintenance, which typically requires a shutdown of 2-3 weeks or longer (in some instances, months) if major maintenance is performed. In recent years, maintenance activities typically have been scheduled during a time when no impact would result on

> downstream flows. During brush replacement, the licensee can open the 650-cfs bypass valve and can request that PG&E operate the Narrows 1 Project to maintain downstream flow when flow is 1,350 cfs or less. During the annual maintenance period, the bypass valve usually cannot be operated, so downstream flow is entirely dependent on Narrows 1 releases or Englebright Reservoir spill. In recent years, annual maintenance has been conducted when Narrows 1 can handle the entire flow or during the winter so that the river flow can be held relatively constant with cool-water spills over Englebright Dam." (2005 FERC Order, p. 3). [Underline emphasis added].

Therefore, it appears FERC envisioned operations of the Full Bypass for "shutdowns" and described three types: 1) short-term emergency shutdowns; 2) long-term emergency shutdowns; and 3) maintenance activity shutdowns. These shutdown types do not include, for example, shutting down or bypassing flows at the Narrows 2 Powerhouse so that PG&E (licensee for the Narrows Project, P-1403) may generate electricity at the Narrows 1 Powerhouse that qualifies for California Renewable Portfolio Standard credit and revenue – or for other purposes. We suggest FERC request additional information regarding the uses of the Project, to understand how and when it is operated in its various configurations.

3) The 2005 FERC Order Modifying and Approving Amendment of License (November 22, 2005) was also issued to amend the Project license to implement more stringent ramping and flow fluctuation criteria for flows downstream of the Narrows 2 development. However, FERC cannot monitor (or have knowledge of) the full range of Project operations or the resulting flow fluctuations because instream flow compliance is determined at a flow gaging station well downstream of the Project's Narrows 2 Powerhouse, Narrows 2 Partial Bypass, and Full Flow Bypass facilities (and those of the Narrows Project, P-1403). There appears to be no FERC monitoring, recording, or reporting of flows, of transitions between the Narrows 2 Development facilities, of flow ramping, or of other operational details with respect to these facilities. Under this practice, FERC's Compliance staff cannot possibly understand in a meaningful way when or how these Project facilities are locally operated, and when and how they are affecting environmental conditions for anadromous fish resources downstream of the Narrows 2 Development and upstream of the gaging station.

4) YCWA's Response (p. 3) suggests that additional information is available about the flows through the Project facilities in question (e.g., the penstock acoustic velocity meter, Narrows 2 Powerhouse generation records, licensee operator log that records which bypass is used and when, etc.). FERC should obtain this existing information, and make use of it to understand how the Project is operated in the vicinity below Englebright Dam, and to determine the adjustments needed to the existing license.

5) Due to the close coordination of Project operations with those of the Narrows Project (P-1403),

flow data through the Narrows 1 Powerhouse may be needed for the FERC assessments suggested above. YCWA's response suggests that Narrows 1 Powerhouse flow information is available from PG&E (licensee for P-1403). We suggest that consultation with PG&E may be needed to resolve the stranding issues, not only due to their licensed operations at the Narrows 1 Powerhouse, but because YCWA's response indicates (footnote 6, p. 3) that it is PG&E's decisions under a power purchase agreement with YCWA that often dictate how and when flows impounded in the U.S. Army Corps of Engineers'Englebright Reservoir (by its Englebright Dam) are directed through YCWA's Narrows 2 Powerhouse, Narrows 2 Partial Bypass, and Full Flow Bypass facilities, as well as through the Narrows 1 Powerhouse. There may be alternatives to obtaining flow information for Narrows 1 Powerhouse via monitoring by the Corps that may (or could) occur within their Englebright Dam outlet works (to which PG&E's Narrows Project works are appended) (see attached 1994 Agreement for Operation and Maintenance of Narrows #1 Hydroelectric Project Between the United States of America and Pacific Gas and Electric Company, required by Article 102, of the license for P-1403).

6) The information discussed in #'s 4 and 5 above would inform FERC's future decisions pertinent to "reopener" Article 411 of the Narrows Project becausethe License Order for P-1403 recognized that P-2246 and P-1403 operate jointly and both affect the fish resources of the lower Yuba River. For this reason, the FERC Order includes Article 411, which "reopens PG&E's license for the limited purpose of considering the role of Project 1403 in maintaining instream flows in the lower Yuba River whenever the license for Project 2246 expires, is reopened, or is amended regarding instream flows in the lower Yuba River." (FERC Order Issuing New License, February 11, 1993). We also suggest the information would be useful to other resource agencies and interested parties to understand lower Yuba hydro operations, inform the development of terms or conditions for the new license due in 2016, and inform future ESA consultation(s) between FERC and NMFS, including over how these coordinated operations may change in the future, under any new power purchase contract(s).

7) The existing license requires YCWA to take measures to prevent or minimize salmon stranding. We recommend FERC staff review YCWA's response to identify the preventive measures taken during the various Project operational procedures, and report these back to NMFS. We could not fully understand what ramping or transition measures occurred on the various dates in October, 2013, to prevent stranding, but we noted that complete flow transitions between facilities often occurred over very short time frames, such as 15 minutes or less. We strongly recommend FERC evaluate these operations with the intent of placing new conditions in the existing license. This is because sufficient information now exists to indicate that Project facilities and operations are causing adverse biological effects to salmon in the vicinity below Englebright Dam (but the details and frequency of the effects are sketchy).

8) To assist your understanding of the current and past salmon stranding incidents, and the related

Project operations that may have caused or contributed, we suggest FERC staff will need to review (at the least) several documents, including:

a. YCWA's Interim Technical Memorandum (TM) 7-11, "Fish Behavior and Hydraulics Near the Narrows 2 Powerhouse" (dated November 2012);
b. NMFS'"Comments on the Initial Study Report…" filed January 28, 2013, in the FERC docket for P-2246.
c. The YCWA response of November 25, 2013.
d. YCWA's Updated Study Report (dated December 2013)
e. YCWA's Draft License Application (filed December 2, 2013)

Given our experience reviewing these documents (thus far), we suggest FERC press YCWA to gain clarity on the varied and complex terminology they use in these documents and reports. In our view, FERC will need to understand and differentiate between these terms (such as between "observation" and "incidental observation"; or between "planned shutdown" and "forced shutdown"; or between a shutdown and a "planned operational event"). Results of studies and observations will be found to be separated for "operational events" versus "planned outages" versus "unplanned outages." FERC staff will find information about the strandings and associated operations across hundreds of pages of these documents. We suggest that you will need to understand the terminology to understand why the information is presented in so many different tables in different locations, and in text discussions (but not tables) – this will be required in order for your staff to locate and interpret the meaning of the information in the context of understanding the Project's effects on anadromous fish resources.

9) Technical Memorandum (TM) 7-11. We recommend FERC staff begin your review with Figure 2.4-1, because it provides an aerial view of the vicinity downstream of Englebright Dam, and is helpful to understand places near the facilities where salmon could be stranded. These include the area along the steep rocky shoreline of the area labeled "Narrows 2 Pool." From Figure 2.4-1, it is clear this area is directly downstream of the facilities labeled Narrows 2 Powerhouse "Draft Tube Outlet" and the Narrows 2 "Partial Bypass." This shoreline is inundated to various degrees as the Partial Bypass is operated, and then dewatered when its flow is reduced or shut off – and therefore is a stranding hazard area. FERC's goal should be to understand what measures licensee is undertaking to prevent or minimize potential stranding in this area. A second area of concern is the depression labeled "Bypass Pool." This pool is "perched" above the Narrows 2 Pool, and is inundated and filled to various degrees as the facility labeled "Full Bypass" is operated. Naturally, pool conditions change (potentially rapidly) as flows through the Full Bypass are reduced or shut off. As is the case with the area downstream of the Partial Bypass, the Bypass Pool area is directly downstream of another Project facility, the Full Bypass, and clearly represents a stranding hazard area. FERC's goal should be to understand what measures licensee is undertaking to prevent or minimize potential stranding in this area.

We also suggest review of TM 7-11, Table 3.3-2. "Presence or absence of fish observed during snorkel surveys at Narrows 2 Powerhouse in 2012 by event and location." (p. 19-20). It contains entries indicating that Chinook salmon were observed in the "Bypass Pool" on July 18 and October 25, 2012; there may be text explaining this somewhere in TM 7-11, but it is unclear to NFMS how, or when, the salmon exited the Bypass Pool when flow conditions associated with Project operations changed. The Bypass Pool observations were primarily from snorkeling surveys, so information about salmon presence was not obtained when the Full Bypass was on or if an operational change occurred, due to safety concerns (p. 20). However, evenan incomplete monitoring record indicates that on two occasions in 2012, salmon were present in a known stranding hazard area that is influenced by Project operations.

Please also see the text on (p. 19, footnote 6) stating, "YCWA does not maintain on record a distinction of whether the full or partial bypass was used, but rather the volume of water bypassed." This view has also been conveyed orally (by Mr. Geoff Rabone, YCWA, and James Lynch, HDR, consultant to YCWA) to NMFS (Larry Thompson) in discussions during ILP meetings. This information appears inconsistent with text in YCWA's response (p.): "YCWA estimates flow through the Narrows 2 Powerhouse, Partial Bypass and Full Bypass based on: 1) recorded flow at the AVM; 2) records of Narrows 2 Powerhouse generation; and 3) YCWA operators'log that records which bypass is used and when." We suggest FERC obtain clarification on this very important point, as emphasized earlier in this letter.

Please note text on p. 24, that on October 12, 2012, "The full bypass was open during the snorkeling event so only the Narrows 2 Pool was surveyed. Instantaneous temperature and DO in the Narrows 2 Pool were 11.8°C and 11.3 mg/L, respectively. Discharge from the bypass valve was 329 cfs on the day of the survey. Two full snorkel passes in the Narrows 2 Pool did not observe any Chinook salmon." This suggests that Chinook may have moved upstream into the Full Bypass pool or flows, as it would be unusual for no Chinook to hold downstream of the Narrows 2 Powerhouse, unless no flows were released from that facility.

Note also text on p. 24, that on October 25, 2012, an operational change from the partial bypass to the full bypass valve occurred (but no snorkeling occurred in the Dam Pool and Bypass Pool due to safety concerns): "Before the operational change, approximately 25 Chinook salmon were observed in the Bypass Pool from the powerhouse deck overlooking the pool. As flow was transferred from the partial bypass to the full bypass, the water became too rough to visually observe what the Chinook salmon did in response to the flow change. Approximately an hour following the flow change from the partial bypass to the full bypass, a fresh Chinook carcass was observed approximately 5 feet on shore. Its location was above the high water line and, thus, the fish was not considered stranded." This text should be cross-compared with NMFS'filing of January 28, 2013, in the docket for P-2246 (discussed below).

10) NMFS'"Comments on the Initial StudyReport…" (January 28, 2013). This information may be

the earliest written report of salmon stranding (during an event in the previous year, in October of 2012). Please see Enclosure A, especially the text regarding "Monitoring of Partial-Bypass Impacts" (beginning on p. 21). Note "Photo 1" of the Narrows 2 Partial Bypass in operation (October 25, 2012) at ~300 cubic feet per second (cfs) flow. Note "Photo 2" of a fresh salmon carcass recovered ~40 minutes after the Partial Bypass was shut off. Enclosure A (p. 22) describes how that carcass was recovered from a crevice previously inundated under the plume of the Partial Bypass discharge, which was thought to spray about 100 to 130 feet downstream as it operated at 300 cfs, an estimated one-half of its flow capacity. The text also refers to a NMFS video recording of the Partial Bypass operation as flow was reduced from 300 cfs to 0; FERC staff may view this video upon your request. Additional photos in NMFS'possession (but not yet filed) include those showing the Full Bypass and Partial Bypass operating at the same time; these photos do not support YCWA's contention (TM 7-11, p. 4), "YCWA does not operate either the full or partial bypasses when Narrows 2 Powerhouse is operating, and does not operate both bypasses at the same time." As discussed above, FERC should consider that adverse biological effects (such as strandings) are probably more likely to take place during operational transitions between the Project facilities, when river conditions experienced by salmon are caused to change. FERC's goal should be to understand what measures licensee is undertaking to prevent or minimize potential stranding during these facility transitions, not only during "typical" operations.

11) YCWA's Updated Study Report (dated December 2013). As the report suggests, there are several studies that may be relevant for FERC staff review, including:

Study 7.13 "Fish Stranding Associated with Shutdowns of the Narrows 2 Powerhouse Partial Bypass"
Study 7.11 "Fish Behavior and Hydraulics Near Narrows 2 Powerhouse"
Study 7.11a "Radio Telemetry Study of Spring- and Fall-run Chinook Salmon Downstream of Narrows 2 Powerhouse"
Study 7.10 "Instream Flow Downstream of Englebright Dam"
Study 7.8 "ESA/CESA-Listed Salmonids Downstream of Englebright Dam"

To understand the results, you will need to obtain and review the corresponding technical memorandum for each study. As you perform your review, we believe you will gain a better appreciation of the difficulty of obtaining a cohesive view of the Project's effects in the vicinity downstream of Englebright Dam and the Narrows 2 Development facilities.

We especially suggest you review the text referring to Study 7.11, and to Table 2.7-1. "Summary of planned and actual operational events from July through November 2013." Again, the terminology used is confusing, and we hope you are able to understand Project effects when results are separated for "operational event" versus "planned outages" versus "unplanned outage." Please note the entry for October 7, 2013, "Stranded fish were not observed, but fish were observed from the waters surface." Please cross-compare this entry with the YCWA response text pertaining to the "incidental observations"(and the photos in Figures 4, 5, and 6)

of a salmon carcass recovered on October 7, 2013, about 15 feet downstream from the face of the Narrows 2 Powerhouse (along the rocky shoreline of the area labeled "Narrows 2 Pool" in TM 7-11, Figure 2.4-1). This discovery is now reported in response to FERC's inquiry. The YCWA response states (p. 6) that staff removed the salmon carcass found on October 7, 2013, and cut off the tail to be sure it would not be counted during the study. In this way, YCWA apparently felt it could then report that no stranded salmon were observed during the study. Clearly, these actions reflect a less-than-genuine approach to investigation of the potential effects of the Project's facilities and operations.

Note also the summary entries in Table 2.7-1 for October 11 and 13, 2013, which do not report live salmon stranding observations. Please cross-compare the entries with the accounts (and photos, Figure 8, Figure 9) of live stranded adult salmon downstream in the Bypass Pool, now reported in the YCWA response. We ask that your staff cross-review these documents to obtain a full account of the facts concerning the stranding events and their associated operational events.

12) The YCWA Draft License Application (filed December 2, 2013). Please review Table 3.3.3-35, "Summary of planned and actual operational events from July through November 2013" (p. E3.3.3-69). We note it contains no entry acknowledging or describing the October 7, 2013, discovery of the salmon carcass (beginning p. 5). The same table (3.3.3-35, p. E3.3.3-69) also contains no entry acknowledging or describing the October 11, 2013, stranding of live salmon now reported in the YCWA response (beginning p. 7). This document is several volumes, so we suggest you "scan" it for terms such as "stranding", "carcass", etc.

13) The YCWA response (November 25, 2013) contains accounts of stranding events in October of 2013. As discussed above, additional salmon carcasses have been reported observed and recovered in 2012. NOAA Law Enforcement has advised our staff to request that FERC's Compliance staff determine if any salmon carcass remains have been collected and retained by any entity. We ask that you provide this information to NMFS, following your interviews, data gathering, and document reviews associated with your inquiry.

We also request that you obtain, and retain, all other information pertinent to the facts of this case, including written accounts, field notes, and transcripts of interviews with on-site personnel and managers, emails, photographs, videos, or other relevant information. As you know, "take" of ESA-listed salmon is not limited to mortality. We noted that the YCWA response (p. 7) contains accounts of live adult (30+ inch) salmon observed leaping out of a small area of the Bypass Pool (where they had been stranded) and on to dry land – and then flipping back into the pool. Such accounts are relevant in this inquiry.

14) YCWA proposes 2 measures to prevent future salmon stranding incidents: 1) Physical removal of the cobble bar downstream of the Full Bypass; and 2) Notification to NMFS and Cal Fish and Wildlife if dead or stranded fish are observed in the future. We note that neither measure proposed <u>any</u> change to the operations of the Project's facilities, either under the existing or a future license. We understand YCWA's aversion to a regulatory approach, but voluntary ramping and flow fluctuation control by the licensee does not appear to have been effective in avoiding harm to anadromous fishery resources. In addition, it may be several years before a new license is issued, and there is no certainty that FERC will require additional flow ramping and fluctuation control (terms and conditions) to remedy the situation. While removal of a cobble (not gravel) bar within a river channel that is ESA-designated critical habitat is not an action quickly realized, changes to Project operations could be in place soon, with the benefits realized by the time adult spring-run Chinook salmon inhabit the area in 2014.

The second measure, after-the-fact notification of harm or take of ESA-listed fishes is not a preventive measure; notification was discussed (in point #1 above) and NMFS recommends FERC's involvement and leadership. At present, there appears to be little appreciation that notification measures are in need of repair. Please review YCWA's response (p. 23) and note the email of YCWA's consultant (Mr. Jim Lynch) to the email request of the California Department of Fish and Wildlife (Mr. Sean Hoobler), who asks for an update on the status of adult Chinook salmon known to be stranded 3 days earlier. Mr. Lynch responds that the information will be contained in a technical memorandum available 2 months later (see Updated Study Report, suggesting the update will be available December 2012).