

MEMORANDUM FOR THE RECORD

SUBJECT: 20BON92 Adult Fish Facility Chinook Mortality.

On Tuesday, September 1st, CRITFC biologists notified Project Biologists of 3 adult Chinook mortalities in their brail pool of the AFF. CRITFC biologists noted:

“ This morning when sampling, there was 1.4° Celsius (21.7°f- 20.3°) difference between the brail pool and the sampling tank. I suspect that the 3 Chinook lost were because of temperature shock. Also, the 3 fish lost were later in the morning when the temperature difference could have been greater. We concluded that also today we left the booster pump on which could have raised the water temperature in the first tank.”

All fish were released back into the river.

#1

- A. Species – Chinook Salmon (*Oncorhynchus tshawytscha*)
- B. Origin – Unknown.
- C. Length – Approximately 80 cm.
- D. Marks and tags – 3DD.003D36581E
- E. Marks and Injuries found on carcass – None.
- F. Cause and Time of Death – Unknown, but likely temperature shock
- G. Future and Preventative Measures – Use protocol procedures more thoroughly and monitor temperatures often.

#2

- A. Species – Chinook Salmon (*Oncorhynchus tshawytscha*)
- B. Origin – Unknown.
- C. Length – Approximately 81 cm.
- D. Marks and tags – 3DD.003D365801
- E. Marks and Injuries found on carcass – None.
- F. Cause and Time of Death – Unknown, but likely temperature shock
- G. Future and Preventative Measures – Use protocol procedures more thoroughly and monitor temperatures often.

#3

- A. Species – Chinook Salmon (*Oncorhynchus tshawytscha*)
- B. Origin – Unknown.
- C. Length – Approximately 85 cm.
- D. Marks and tags – 3DD.003D3657E7

- E. Marks and Injuries found on carcass – None.
- F. Cause and Time of Death – Unknown, but likely temperature shock
- G. Future and Preventative Measures – Use protocol procedures more thoroughly and monitor temperatures often.



Sincerely,
Project Fisheries

Agency comments:

NOAA

-----Original Message-----

From: Trevor Conder - NOAA Federal <trevor.conder@noaa.gov>

Sent: Tuesday, September 08, 2020 12:28 PM

To: Kovalchuk, Erin H CIV USARMY CENWP (USA) <Erin.H.Kovalchuk@usace.army.mil>; Mackey, Tammy M CIV USARMY CENWP (USA) <Tammy.M.Mackey@usace.army.mil>; Lorz, Tom <lort@critfc.org>;

Hausmann, Benjamin J CIV USARMY CENWP (USA) <Benjamin.J.Hausmann@usace.army.mil>
Subject: [Non-DoD Source] Re: FPOM: Official Coordination 20BON91 MFR AFF Chinook Mort

Erin,

This is the fourth recent adult Chinook mortality from handling and thermal stress. What are the researchers doing to address this high temp mortality issue? Sampling earlier in the day or not at all during this high temp period would likely help. It certainly does not support sampling more fish or at higher temps as often proposed.

-Trevor

Response:

-----Original Message-----

From: Hausmann, Benjamin J CIV USARMY CENWP (USA) <Benjamin.J.Hausmann@usace.army.mil>

Sent: Tuesday, September 08, 2020 12:35 PM

To: Trevor Conder - NOAA Federal <trevor.conder@noaa.gov>; Kovalchuk, Erin H CIV USARMY CENWP (USA) <Erin.H.Kovalchuk@usace.army.mil>; Mackey, Tammy M CIV USARMY CENWP (USA)

<Tammy.M.Mackey@usace.army.mil>; Lorz, Tom <lort@critfc.org>

Subject: RE: [Non-DoD Source] Re: FPOM: Official Coordination 20BON91 MFR AFF Chinook Mort

That's a fair question, Trevor. This is one reason why we are in favor of having researchers report their own mortalities and having that clearly shown in the subject line. They do water changes and add ice and of course we have our own high temp sampling protocol. If you want specifics on their daily high temp mitigation, John Whiteaker could certainly provide that.

Ben

200910 FPOM minutes:

7.9. – Conder had emailed a question asking if there were any change in protocols after the three tagged fish died. Whiteaker was asked to call into FPOM but was on vacation. Hausmann said that CRITFC is diligent about the high temperature protocol. Whiteaker had reported that a pump was running continuously and could have caused a couple degrees difference between tanks. Lorz had followed up with Whiteaker. The staff has been following the protocols exactly. On the day when the three tagged fish that died, there was a couple degree difference between tanks. CRITFC is going to try not using the pump. Van Dyke asked if the tagged fish were 100% of the sample. Lorz said it was not. Van Dyke asked if the dead fish were 100% of the tagged fish. Lorz doesn't know that information and will track down that information. ACTION: Lorz will find out how many fish were tagged on the day that three fish died.

Response from CRITFC:

-----Original Message-----

From: John Whiteaker <whij@critfc.org>

Sent: Tuesday, September 15, 2020 8:18 AM

To: Kovalchuk, Erin H CIV USARMY CENWP (USA) <Erin.H.Kovalchuk@usace.army.mil>; Hausmann, Benjamin J CIV USARMY CENWP (USA) <Benjamin.J.Hausmann@usace.army.mil>; Tom Lorz <lorz@critfc.org>

Cc: Jayson FiveCrows <fivj@critfc.org>

Subject: [Non-DoD Source] RE: high temperature measures

Hi Erin,

On September 1, 2020 a total of 36 fish were sampled. The three chinook mortalities were sampled at 07:50, 08:55, and 09:05. We shut down early due to the mortalities and the last fish was sampled at 09:42. The sampling tank was then measured to be 1.4 C warmer than the brail pool. It was later determined that the booster pump was left on with limited flow overnight which likely caused the increased temperature in the sampling tank water supply.

John