

MEMORANDUM FOR THE RECORD

Subject: Final minutes for the 08 August 2019 FPOM meeting.

The meeting was held in the Columbia Conference Room of the CRITFC Office in Portland, OR. In attendance:

Last	First	Agency	Email
Anderson	Karl	NWW	Karl.R.Anderson@usace.army.mil
Baus	Doug	NWD-RCC	Douglas.m.Baus@usace.army.mil
Bellerud	Blane	NOAA	Blane.Bellerud@noaa.gov
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McClain	Nathan	NWP-FFU	Nathan.A.Zorich@usace.army.mil
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Sullivan	Leah	BPA	lssullivan@bpa.gov
Swank	David	USFWS	David_Swank@fws.gov
Thompson	Josie	NOAA	Josie.Thompson@noaa.gov
Van Dyke	Erick	ODFW	erick.s.Van_Dyke@state.or.us
Walker	Ricardo	NWW	Ricardo.W.Walker@usace.army.mil
Wertheimer	Robert	NWP-FFU	Robert.H.Wertheimer@usace.army.mil
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Zyndol	Miro	NWP-JDA	Miroslaw.A.Zyndol@usace.army.mil

On the phone: Anderson, B. Johnson, E. Johnson, Kiefer, Sullivan, Swank, Van Dyke and Wertheimer.

1. Final decisions or recommendations made at this meeting.

- 1.1. July meeting minutes were approved.
- 1.2. Morrill requested an additional day for comments on the June minutes; June minutes were approved on 09 August.
- 1.3. BON MU11 - FPOM concurs with repairing MU 11 immediately.
- 1.4. 19IHR13 MOC Release pipe install for Unit 2 testing – FPOM concurred with this action.
- 1.5. 19MCN13 MOC Steelhead overshoot transducer install – FPOM concurred with the unit outages.
- 1.6. 19BON46 MOC Fish Unit Outage and AWS Inspection - FPOM is tentatively okay with this action as long as the AFF is not trapping.

2. **The following documents are provided or discussed at this meeting. All documents can be found at: <http://pweb.crohms.org/tmt/documents/FPOM/2010/>**

- 2.1. Agenda, Fish Passage O&M coordination team
- 2.2. FPOM Outages (NWW)
- 2.3. BPA Transmission outages (BPA)
- 2.4. Whooshh In-Season Report update 2
- 2.5. MCN Early Start up (NWW)
- 2.6. Copy of 2019 Fish Screens McNary (NWW)
- 2.7. Debris Ideas for NOAA (NWW)
- 2.8. Shad ideas for FPOM (NWW)
- 2.9. Coordination Forms (MOC/MFR)(NWW/NWP)
- 2.10. FPP Change Forms (NWW/NWP)

3. **Action Items**

3.1. **NWW**

- 3.1.1. **[August 19] Debris maintenance** - ACTION: Setter will look for images of how debris collects at the upper dams.
- 3.1.2. **[August 19] Shad dissuasion** - ACTION: BPA will look into the shad research supported by BPA.
- 3.1.3. **[August 19] Shad dissuasion** - ACTION: The States will discuss removing juvenile shad at the JBS facilities internally.
- 3.1.4. **[August 19] 19MCN13 MOC Steelhead overshoot transducer install** - ACTION: Walker will send project plans/pictures with the handrails in place to the group.

3.2. **NWP**

- 3.2.1. **[August 19] BON sea lion hazing** - ACTION: Mackey will set up a special phone call meeting in two weeks with the other federal entities to discuss hazing plans.
- 3.2.2. **[August 19] TDA FUB** - ACTION: Cordie will invite the new PM (Dasso) to the September meeting.
- 3.2.3. **[June 19] TDA FUB**- ACTION: Cordie will check to see if the contract can add isolating one unit in the contract. Status: Cordie checked with the electrical engineers and it is doable but it would extend the contract. The Project also has concerns about asking this contractor to do any more work because of the work quality of this contract. Bettin asked if another contractor could be hired to isolate. Cordie will look into this possibility. *Status: No, the project is not looking into this suggestion. The contracting process will take too long. Lorz wants to know what the COE is doing to ensure the region that there will not be a similar situation as last year. The project wants to run the AWS for the month of February. Lorz asked if the AWS could run in October but the follow on contract will end the third week of January. Lorz would like the COE to at least try to get some run time on the AWS before it is necessary to run it. Bellerud would like to know when the check points happen to make sure the schedule is being followed.* **ACTION: Cordie will invite the new PM (Dasso) to the September meeting.** *Many FPOM members expressed their distain about the contracting process and the lowest bidder format. FPOM would like a formal after action of the FUB contract. Cordie will inquire about a two week early start in November. The flow out of the AWS is ~1.4. The November time may not work out due to contracting.*

3.3. **Completed Action Items or to be discussed later in the agenda**

- 3.3.1. **[July 19] Early Start Up** - ACTION: Setter will come back with a list of tradeoffs for the MCN early start.

- 3.3.2.[July 19] Shad** - ACTION: Setter suggested everyone bring their list of ideas/tradeoffs for shad removal.
- 3.3.3. [April 19] LGS debris spill** - ACTION: Setter will ask about the debris strategies at each dam and provide a list to FPOM. List was provided at May FPOM mtg, reps will bring any discussion to June FPOM. *Status: Conder reviewed the documents and pointed out the LGS plan as helpful. With the upcoming Bi Op, Conder is looking to reinforce any good debris strategies as well as highlighting any concerns to put CRFM money towards. Thompson and Conder like the LWG system. Conder would like to hear any improvements to the system to consider for the mitigation package coming up. Debris is maintenance intensive. This topic will be moved to updates for next month.*
- 3.3.4.[June 19] TDA Spillway** - ACTION: Cordie will find out if the crane can be used to fix the trunion pin issue. *Status: The crane is only used for bulkhead installation. A gantry or barge crane would be necessary. The crane was a higher priority because it is necessary for spill maintenance.*

4. Updates

4.1. NWW

4.1.1. Upcoming maintenance/construction/research activities.

- 4.1.1.1.** FPOM outages schedule (Setter) – MCN new leaf gates have been pushed out by one year.
- 4.1.1.2.** Early start up 2020 update on tradeoffs for MCN – [Handout] The project developed a list of tradeoffs in maintenance and trash raking due to the costs and equipment needed for the early start-up. The cranes are very limited and there are conflicts with scheduled maintenance. Early start up will limit the amount of money available for the known fish maintenance like FOGS, telescoping weir maintenance and fish pump 1 rehab. Setter pointed out that although the FOGS are not being worked on this year, the worst ones have already been rehabbed. Lorz will bring this list to FPAC and makes sure FPAC is aware of the trade-offs. Swank asked how this affects the total overall budget. Setter said it is a pretty small amount. *Email update from Conder 190813 - Tom Lorz brought this up for FPAC discussion today. While I understand and appreciate that these investigative early startups are a significant strain on workload and funding resources for the projects, an early start at McNary is important in 2020 since it will help the region to understand if the early migration data are consistent with what has been observed at other projects in the past couple of years, and it helps to understand when the migrations are beginning at these projects for future management decisions. So far the information is showing that starting March 1 is too early, and it is likely that this year of operation at MCN will confirm when the migrations tend to begin in the Snake and Columbia Rivers. From my perspective, of the three things listed by the project that could be affected by this, the fish pump rehab is the most important item to prioritize and fund ensuring it is done on time. While the other items are still important, I put them further down on my priority list. My primary concern is that the fish pump is available so we can have certainty that the ladder can maintain criteria. Thanks for opportunity to comment.*
- 4.1.1.3.**
- 4.1.1.4.** Debris Maintenance – [Handout] Setter brought a list of debris management ideas from all the projects but IHR. *Email update: IHR sent an update and the new document has been posted to the website. When the RSW was installed at LWG, they*

stopped collecting the debris; LMN would like LWG to collect again. The RSW is very effective at pulling debris from the forebay. Conder asked if the LGS boat barrier missing section will be fixed. Setter said that there is no plan to replace it. LWG and MCN both do not have boat barriers. **ACTION: Setter will look for images of how debris collects at the upper dams.** Setter can review the list and pull out a few key items for the next meeting. Conder needs the information by next month. Morrill will reach out to a couple other folks that are contracted since they have been there for a long time.

- 4.1.1.5. MCN fish pumps – Fish pump 3 was overheating and it was forced out of service. They had to close the north entrance as described in the FPP. The sensor was replaced and the pump was returned to service.

4.2. NWP

4.2.1. Upcoming maintenance/construction/research activities.

- 4.2.1.1. BON Whooshh – The report is on the website. Whooshh would like to come to the September meeting to explain their results but the October meeting would be better.
- 4.2.1.2. BON MU 11 – The unit is still running but there is an oil leak in the shield that could potentially turn into a spill. MU12 will run instead of 11 during the outage. **FPOM concurs with repairing MU 11 immediately.** Wright updated that the second priority unit is 18 then 12. Both units will be running during the repair.
- 4.2.1.3. TDA spillway – MRER is officially funded for FY20. If the MRER goes forward, the Plans and Specs would be in FY21 and construction in FY22-3. Van Dyke asked if this was inclusive of the trunnion pin on spill bay 9 and Cordie said yes, the entire spill way.
- 4.2.1.4. JDA south turbine pump #3 – The thrust bearing needs to be replaced and it is going through contracting. The funding is available for the contract.
- 4.2.1.5. JDA elevator – The contract should be awarded next week.
- 4.2.1.6. JDA LPS Pumps - The repair is with the PDT and will fixed this winter.
- 4.2.1.7. ROV inspections
 - 4.2.1.7.1. BON – All gratings were intact. There is sand/silt in the AWS which prompted the MOC. A staff gage will go in. Even with the dredging in front of the fish units, the AWS still had lots of sand.
 - 4.2.1.7.2. TDA – The ROV inspection was completed on 07 August. All gratings were intact. All the other work was accomplished as well but a small overlap of the north and east ladder occurred.
 - 4.2.1.7.3. JDA – The ROV equipment failed and will be rescheduled.

4.3. Research/FFDRWG updates.

<http://pweb.crohms.org/tmt/documents/FPOM/2010/FFDRWG/FFDRWG.html>

4.3.1. NWP FFDRWG – No update

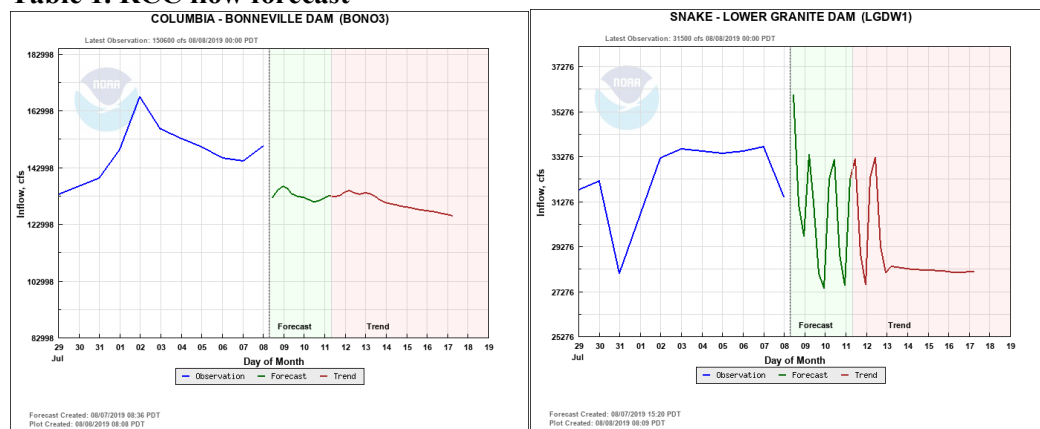
4.3.2. NWW FFDRWG – 22 August is the next meeting.

- 4.4. **RCC update** – Spill at IHR has been over the summer spill target of 30% on some hours due to the fixed spill through the RSW that can't go lower than ~8 kcfs. The current FPP criteria closes the RSW when flows drop below 30 kcfs as a day average, but if hourly flows drop while the RSW is still open, spill will be more than 30% for those hours. Conder asked if the spill could be more stable using the additional flexibility in the MOP. Wright said that it may not be something that needs to be fixed but to be aware of and think about for next year. This year, the summer spill at IHR is a percentage of the flow which is different from previous years when the target was a fixed spill rate (45 kcfs day/gas cap night). Targeting a percent of outflow is difficult with

changing hourly flows as flows drop. Wright thought the 30 kcfs threshold to close the RSW had to do with tailrace hydraulics and egress conditions. Conder and Lorz were fine with having some hours of spill above 30% unless there's a hydraulic or project concern that requires adjusting the criteria to close the RSW sooner. Sullivan will look into the higher spill from BPA's perspective.

Project	Previous day average (kcfs)	5 day forecast average (kcfs)	10 day forecast average (kcfs)	Projected Low/Peak (kcfs) and date.
LWG	32	31	28	28 (8/17) / 32 (8/8)
MCN	158	130	121	121 (8/17) / 143 (8/8)
BON	149	134	126	126 (8/17) / 135 (8/8)

Table 1. RCC flow forecast



- 4.5. BPA update** – [Handout] The transmission outages are posted on the web. Sullivan noted that there is some irregularities in the Dworshak schedule and BPA will be update this issue at the next meeting.
- 4.6. Fish Count Program** – At JDA-S, the air conditioner broke and the staff had to be evacuated due to the extreme heat but the video was taping. Counting resumed on 07 August. It will take a week to get through the video. The air conditioning won't be fixed until mid-September but a temporary AC unit was installed. Peery has started the QC for NWW. For the most part, Four Peak is within the criteria set forth in the contract except for a couple of locations. The counts at IHR and LMN are NWW's biggest concern. Conder asked if the counts will be adjusted based on a correction factor. Peery said that any corrections would be to a specific video and an across the board correction factor is a bigger discussion. Peery will make sure that the highest count days are reviewed. Setter thinks that correcting would make a lot of sense for the long term. Peery agreed but he needs to have more information on the QC. McClain said each individual counter needs to be checked. Setter requested that any changes in counts should be brought to FPOM. Morrill said that if a specific counter needs a correction factor than it should not be applied to the entire month. Peery agreed and said that each counter is looked at individually. Kiefer said that four PIT tagged sockeye tagged by CRITFC at BONN were detected in the Snake River (two as far as LWG). However, genetic samples were taken at the time of tagging, and genetic analysis indicates that all 4 were Mid-Columbia stock and not Snake River origin fish. This means that most likely more of the sockeye seen at LWG are likely to be Mid-Columbia stock. Van Dyke asked if just IHR was being looked at. Peery said the counts at all the dams are being reviewed. Morrill asked if IDFG is looking at tagging more sockeye. Kiefer said that they tag all natural origin smolts that they can and a large portion of the hatchery fish. Due

to a water chemistry issue, hatchery fish in 2017 had high mortalities. Kiefer thinks that they PIT tag enough fish. Usually, 1 out 15-20 hatchery fish are usually PIT tagged. Johnson said that PIT tagged natural origin fish do not survive as well. Conder asked if CRITFC could have access to the QAQC video at BON. Wertheimer said that they have the videos on laptops. CRITFC needs to bring a portable storage drive and the data can be moved over. Conder asked if there is a time limit when the videos will be written over. Wertheimer said that they have no space limitation at the moment. Several members asked what this topic was about. Conder explained that this is to see if it is possible to estimate the proportion of B run steelhead during high temperature instead of using the AFF. Earlier this year, NOAA suggested this method instead of expanding the use of the AFF during high temperatures. These counts are used for harvest management and they need better data. Wertheimer said that there is a lot of video and it will be time consuming. Lorz said that they need to see if the video is even good enough quality that they can make this estimation.

4.7. Pinniped update

4.7.1. BON - Seven SSL are present in BON tailrace. The sea lions came about a week earlier than last year. McClain said that the trend over the last few years is that the sea lions return earlier than the year before. Conder asked if the hazing is in place. Mackey said that they haven't hit the trigger for the monitoring. Conder said that the monitoring trigger is not the same as a hazing trigger. Mackey said that there is not a contract in place and she doesn't have the budget this year. Mackey request a UFR for FY20 and will add the hazing at the next possible submission but she can't start hazing in September. Mackey is looking for funding but there are higher priorities. Wertheimer said that when Mackey took this issue to higher management, they wanted to know why there isn't consistent hazing requirements at Willamette Falls. Conder said that each dam and location is treated differently. Wertheimer has set up a study to look at the efficacy of hazing. In FY 20, the states will have the authority to remove any SSL upstream of the 205 bridge. Thompson asked what the study will look like. Wertheimer said the results from the pilot study are within FFU's reports which are on the website. A new study will be conducted this spring but the plan has not been written yet. The new study will be similar to the pilot study. Conder wants a follow up call in two weeks with the FED family to discuss the hazing plan. **ACTION: Mackey will set up a special phone call meeting in two weeks with the other federal entities to discuss hazing plans.**

4.7.2. TDA – In the last two years, three sea lions have been removed and one unbranded animal is left. A couple of branded animals have been observed upstream and downstream indicating that they don't spend the whole year in the Bonneville pool but rather move in and out.

4.7.3. Willamette Falls – Van Dyke did not think that ODFW was currently monitoring but will inquire after the meeting. Wertheimer pointed out if sea lions are at BON then they could be at Willamette Falls as well. *Email update from Van Dyke: As requested, I checked in with ODFW pinniped field staff to identify if any Willamette River pinniped observation activities are occurring. It turns out that the current ODFW pinniped staff checks the Willamette River for pinniped presence every week through January, after which more regular field observations generally begin. Although they received a report from an angler that a sea lion was in the area around Oregon City (near Willamette Falls) they were not able to confirm any presence this week. They have observed video in Astoria that shows a slight increase in pinniped presence this week.*

4.8. Lamprey update – By this time of year, the run at BON is 95% over and the corrected count is ~61K lamprey have passed. This is lower than the previous three years and just under the ten year average. The U of I study is still ongoing. Due to the lower numbers, U of I still have tags. McClain is looking to see if CRITFC would be willing to prioritize the U of I study. Lorz said that you can always ask. Walker said that U of I was planning on an average sized run and a

target of not handling more than 2% of the run. Since the run is lower than expected, the sample size is reduced resulting in left over tags.

4.9. Avian Update

4.9.1.BON – typical numbers of birds are present.

4.9.2.TDA – Hazing is completed for the season. Currently, there are high numbers of gulls and pelicans. The RTR report stated a high presence of PIT tags were found on Miller Rocks.

4.9.3.JDA – Hazing ended at the end of July. There were very few gulls present in July but daily counts of pelicans were over 300. RTR is going to scan the island where the pelicans hang out for PIT tags.

4.9.4.MCN –All bird numbers are down. Funding came through for a second laser to be installed. Peery is still working on the analysis of the laser study but he wasn't able to get as much data as he wanted. Preliminarily, he found fewer gulls when the laser is on in the morning and evening but it changes during the day. It may have to do with the amount of light available. The laser is considered just one more tool in the tool box. It is a replacement for the cannons but not the only means of dissuading gulls.

4.9.5.FFU – The colony on ESI was successful meaning the terns were kept to the one acre and were able to produce fledglings. Even with eagles attempting to predate the young, the terns were successful. Terns were kept off Rice Island. Lorz asked if the COE can use the egg take from Rice and transfer that take to ESI. McClain said that this topic has been discussed but hasn't been decided. Wertheimer pointed out that a couple of eggs did hatch outside of the colony but the young were predated by gulls. The goal of one acre was met but Lorz feels like the population target was over what it should be.

5. Shad dissuasion – [Handout] A list of possible shad dissuasion methods was handed out to the group. It has been posted to the website. Peery called attention to the fact that shad are homing to specific spawning areas. Shad prefer to use the overflow section of weirs instead of the orifices. At Priest Rapids, the top three weirs were boarded off and no shad climbed over the dam. Lorz thought the top of the ladder was chosen over the bottom due to the fluctuations in the tailrace. High velocities and turbulence confuses shad. Marvin Shuttles has data that certain sound signals around 150 decibels are only heard by herring/shad. Sullivan confirmed that she was aware of the same information. Setter would like to know how much it would cost to implement a trial study. Setter doesn't have money to implement this study but BPA might be able to purchase equipment. Peterson said that USGS did shad research and will look into this data. Mackey asked if there are any restrictions on harvesting shad. Van Dyke said that permitting would be required in a scientific study. Mackey asked the states to bring the issue of removing shad at JBS facilities like the Siberian prawns back to their offices. The effectiveness of the fish counts at IHR has been affected by the shad. The second major problem is the high numbers of shad dying on the ladder making it difficult for salmon to pass. **ACTION: BPA will look into the shad research supported by BPA. ACTION: The States will discuss removing juvenile shad at the JBS facilities internally.** Peery said that climate change should help rather than hurt the shad populations. Morrill asked if changing the weir shape would fall under a new Bi Op. Conder said he would not want to make a change that might also affect sockeye. Shad criteria is 1.3' to help pass shad faster. Derugin said getting rid of the shad criteria might cause a blockage from shad crowding at the entrances. **This topic will stay on the agenda.**

6. Coordination/Notification forms (need concurrence/discussion)

6.1. 19LGS07 MOC Early closure of AWS – completed

6.2. 19LGS08 MFR Adult fishway cooling pump outage

6.3. 19LMN09 MOC RSW outage for ail log install - completed

6.4. 19IHR12 MFR Incorrect spill pattern

- 6.5. 19IHR13 MOC Release pipe install for Unit 2 testing** – The comment period is open until 13 August. Baus sent comments saying it would be implemented the best they are able. **FPOM concurred with this action.**
- 6.6. 19MCN13 MOC Steelhead overshoot transducer install** – This MOC is to coordinate outages to install the research equipment to evaluate the Steelhead overshoots and is a revision to the original MOC. Whether to use spill bay 19 or 20 is still up for discussion but this MOC is for the unit outages. Bellerud would prefer to stick to spill bay 20. If the project had the new leaf gates then this would not be an issue but the leaf gates are pushed one year out. The problem with bay 20 is it can't be used without the gantry crane which blocks the roadway. Maintenance would be greatly affected since they are preparing for winter maintenance. If the project switches to 19 then a hoist system could be used instead. Walker doesn't think changing the spill bay would matter but Conder does because there is a hydraulic difference. Bellerud asked why the gantry couldn't be used to open the TSW and then moved out of the way. The opening of the spill bay is a minimum of 4 hrs. The concrete slabs have to be removed to access the TSW. Moving the crane requires a crane crew and electricians have to reset the limits every time the crane is moved. It is not a simple process to move the crane. Bellerud thinks that the test should be done in bay 20 because it adds another variable and might need to do the test another year. Setter suggested waiting a year until the leaf gates are installed. A car or truck could fit past the gantry but the bigger trucks can't fit. It is an impact on maintenance not just an inconvenience. Morrill suggested parking some vehicles on the other side of the bay. Walker said he can't speak to the specifics but this would have a cascading effect of impacts. The equipment should be installed by 09 September. The decision needs to be made by the end of the week. The researchers were okay with the shift in spill bays. Conder needs a picture of the project to show the bottleneck area. **ACTION: Walker will send project plans/pictures with the handrails in place.** Johnson said the crane is attached to the TSW which takes away half the roadway because the covers have to be removed for access. They can't bring the mobile cranes over the highway. Setter said that Walker should talk to the project about cutting more concrete for an additional hoist system. Conder asked if a smaller crane could be used. The problem is the concrete covers would still need to be removed which blocks the roadway. Walker will schedule an SRWG call on Monday at 11:00 am to address this issue. **FPOM concurred with the unit outages.**
- 6.7. MFR for IHR north entrance gate failure** – The gate is up which essentially closed the fish way. The south gate was lowered and the ladder is open. If tailwater goes up then they will be out of criteria.
- 6.8. 19TDA14-15 MFR**
- 6.9. 19BON33-45 MFRS**
- 6.10. 19BON46 MOC Fish Unit Outage and AWS Inspection** –The work is supposed to take half a day even though the MOC is requesting 2 days. Conder asked why they can't do this work during the in-water work period. The WA Shore ladder is not going this winter. Derugin said that they need figure out how much sand builds up in the spring and it gets highly turbid during the winter. The priority will switch to PH1. The ROV would start first thing in the morning. Derugin recommended closing the weirs part way to help with differentials. Mackey asked if they can start in the afternoon. Starting in the morning ensures that they can finish in one day. Conder said that there is no reason why this has to be done now. Maintenance rehabbed trash racks and need time to rehab the new ones before winter. Mackey wants to know how many trash racks are done and how many need to be done. Derugin said that the winter ROV is useless due to the limited visibility. Conder suggested doing only the ROV to save time but the project is trying to double up on work. Lorz is okay with the work. Conder is tentatively okay but wants the AFF to stop trapping during this time even if the temperatures decrease. **FPOM is tentatively okay with this action as long as the AFF is not trapping.**

7. The final 2019 FPP is available online at: <http://pweb.crohms.org/tmt/documents/fpp/2019/> All 2019 FPP change forms and draft chapters/appendices are posted at: <http://pweb.crohms.org/tmt/documents/fpp/2019/changes/>

7.1. Pending Change Forms: NONE

7.2. New Change Forms: NONE

8. **Task Group Updates.**