

MEMORANDUM FOR THE RECORD

Subject: FINAL minutes for the 09 October 2014 FPOM meeting.

The meeting was held in the Bonneville Dam Auditorium. In attendance:

Last	First	Agency	Email
Bailey	John	NWW	John.c.bailey@usace.army.mil
Cordie	Bob	NWP-TDA	Robert.p.cordie@usace.army.mil
Dalen	John	NWP-FFU	John.t.dalen@usace.army.mil
Dugger	Carl	NWW-MCN	Carl.r.dugger@usace.army.mil
Fielding	Scott	NWW/NWP	Scott.d.fielding@usace.army.mil
Fredricks	Gary	NOAA	Gary.fredricks@noaa.gov
Fryer	Jeff	CRITFC	fryj@critfc.org
Hevlin	Bill	NOAA	Bill.hevlin@noaa.gov
Iverson	Tom	Yakama Nation	t.k.iverson@comcast.net
Kiefer	Russ	IDFG	Russ.kiefer@idfg.idaho.gov
Kostow	Kathryn	ODFW	Kathryn.E.Kostow@state.or.us
Lut	Agnes	BPA	axlut@bpa.gov
Mackey	Tammy	NWP	Tammy.m.mackey@usace.army.mil
Morrill	Charles	WDFW	Charles.morrill@dfw.wa
Petersen	Christine	BPA	chpetersen@bpa.gov
Pinney	Chris	NWW	Chris.a.pinney@usace.army.mil
Rerecich	Jon	NWP	Jonathan.g.rerecich@usace.army.mil
Royer	Ida	NWP-BON	Ida.m.royer@usace.army.mil
Sears	Sheri	Colville Tribes	sheri.sears@colvilletribes.org
Setter	Ann	NWW	Ann.L.Setter@usace.army.mil
Smith	Marcus	NWW	Marcus.J.Smith@usace.army.mil
Stansell	Robert	NWP-FFU	Robert.j.stansell@usace.army.mil
Wertheimer	Bob	NWP	Robert.h.wertheimer@usace.army.mil
Wills	David	USFWS	David_wills@fws.gov
Wright	Lisa	NWD-RCC	Lisa.s.wright@usace.army.mil
Zorich	Nathan	NWP-FFU	Nathan.a.zorich@usace.army.mil
Zyndol	Miro	NWP-JDA	Miroslaw.a.zyndol@usace.army.mil

Dugger, Hevlin, Iverson, Kiefer, Kostow, Morrill, Pinney, Sears, Smith, and Wright called in.

**October birthdays include: Lorz and Bettin
HAPPY BIRTHDAY!**

1. Decisions made at this meeting.

- 1.1. August and September meeting minutes approved.
- 1.2. LWG temperature improvements. FPOM was not quite comfortable with confirming the 9-12 June 2015 dates without reviewing the updated MOC first.
- 1.3. TDA-N fish count station improvements. **FPOM preferred the infra-red only. FPOM is ok with using UHMW instead of Teflon. Cordie suggested (and FPOM agreed) starting neutral and then gradually moving towards brighter green until a good color can be found.** Dalen recommended pointing the lights at the wall instead of directly down into the water. The area just above the water surface at the window will be painted lighter and

brighter. This will allow the light to bounce off the vertical wall and then down into the water. This will diffuse the light but provide enough for the video and fish counter. This is for the visible light only. The infra-red will point straight down. **FPOM concurred with that.** Dalen switched to kelt counting at the BON JMF. He would like to explore motion activated video. In order to accomplish that, the motion detector installation requires some mods. He would like to plug some of the holes to allow for better video counting. **FPOM concurred with the action.**

1.4. CRITFC AFF PIT tag detector. FPOM was ok with the exit section detector but the entrance detector needs to have a hydraulic review. This will be carried over to November.

1.5. MOCs

1.5.1. 14BON77 UI test request. **FPOM Concurred.**

1.5.2. 14 MCN23 Outage to Recover Camera Equipment and to Remove Floating Orifice. **FPOM concurred.**

1.5.3. 14 MCN24 Fish Pump Outage for Electrical Upgrade. **FPOM concurred.**

1.5.4. 14 LGS12 Installation of Power Transformer. **FPOM concurred with a implementation date of November 13 during the afternoon.**

1.6. FPP change forms.

1.6.1. 15BON04 FOG SLEDs. FPOM concurred.

2. The following documents were provided or discussed. Documents may be found at <http://www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/>

2.1. *Agenda, Fish Passage O&M Coordination Team.*

2.2. *Cooling Water Strainers Lamprey Counts.xls.*

2.3. *Coordination/Notification Forms (NWW/NWP)*

2.4. *FPP change forms. (NWW/NWP)*

3. Action Items

3.1. NWW Action Items.

3.1.1. [May 14] MCN mechanical screen sweep. **ACTION:** Dugger will provide an update now that ETS has completed scoping alternatives. **STATUS:** *Dugger explained the options appear to be to repair the existing system rather than installing a completely new system. The MCN OPM has some concerns with the report. The plan is to get through Plans and Specs in FY15 and then construct in FY16. There is a meeting next week where longer term decisions are going to be made so any action on the ETS has been completed. There are two issues – clearing out the MCN forebay, and screen cleaning/reliability. There is also the question as to whether or not the airburst may be enough for one screen.*

3.1.2. [Oct 14] MCN screen cleaning. **ACTION:** Dugger will provide more information (background, issues, proposed path forward) at the November FPOM meeting.

3.1.3. [Sep 14] LWG temperature improvements. **ACTION:** Pinney will check on the contract flexibility, check on the weekend outage option, check with Dive Safety regarding flow requirements, and update the MOC. Baus also requested clarifying unit outages during this same time period. **STATUS:** *The contract is supposed to take three days. NWW has to provide two 3-day blocks, with at least three days in-between the two blocks, for the contractor. Pinney says NWW would prefer starting on 9 June 2015. There may be a possibility of getting the work done, with double crews, in a three day period, maybe a four day period. Setter asked about the AWS outage. Pinney said the winter dewatering protocols require an extra day of no AWS flow to reduce the number of fish that need to be salvaged in the ladder. That full day may not be needed. Setter said the dive work is expected to take 60 – 70 hours and that is pretty challenging to complete in a 3-day 24-hour period. Hevlin said*

there needs to be flexibility in the contract to accommodate passing the spring freshet. Pinney didn't think the full powerhouse would need to be OOS for the diving. Setter suggested FPOM try to agree to a timeframe and then if a change is needed, the contract could be modified later. BCOE is due by the end of October. FPOM was not quite comfortable with confirming the 9-12 June 2015 dates without reviewing the updated MOC first. NOAA and USFWS could agree; BPA needs to see the updated MOC to review unit outages/impacts; ODFW needs to see the updated MOC prior to providing comments; WDFW is not uncomfortable with the dates but would like a chance to review the MOC and would like flexibility depending on what the water year shapes up to be; Colville Tribe and Yakama Nation echoed WDFW in wanting flexibility in the event of a high water year and needing to see the MOC; IDFG wants the work done and acknowledged the proposed window is a time of low Chinook passage but expressed concerns about flexibility and stressed there is no good time except in the winter work period. IDFG said they would provide a better time if they couldn't agree with the proposed period.

3.2. NWP Action Items.

- 3.2.1.** [Jun 14] TDA-E buffer for fishermen. **ACTION:** Kostow said there is an effort between ODFW and WDFW to get consistent rules. She will check on that process and report back to FPOM. **STATUS:** *still working towards consistency. Mapping the fishing areas occurred. This is moving through the US v Oregon policy group and that is a slow process. We will take this off the Action Items since an update isn't likely to be available anytime soon.*
- 3.2.2.** [Sep 14] TDA-E low flow test. **ACTION:** NWP will need to look through the data to see if there may truly be an issue with a one fish unit operation. **STATUS:** *Cordie reported the test will not occur. He also reported that the fish unit data isn't readily available. Fredricks said he was looking for days when there was only one fish unit operation. Cordie said the only data available is from the winter and any other time the outages were only for a couple of hours at a time. Zyndol retracted his statement about an outage in 1997 since no data could be found to support that. Fredricks said he remembers a conversation with Gary Johnson about how long it would take to restack a fish unit and the estimated time was about a year. Cordie said in 1992 or 1993 a fish unit blew a seal but the outage occurred in the fall and that information hasn't been found yet. Lut said BPA would be interested in the data. Stansell said the AFPR might have something in the narrative. Cordie will do a bit more digging. Lut said BPA is still interested in doing a low flow test. She said BPA would like to prove the 1400 cfs is going to work. Rerecich said the spot check test isn't going to change the path NWP is moving down. He said the information provided when we had the recent fish unit outages shows fish will move. Fredricks said if the test is 0 v 1.4 kcfs there isn't a point. Lut said BPA wasn't talking about a 0 v 1.4kcfs test. BPA would like to see a stepwise approach and see how low we could get. Fredricks said the test would be so completely flawed that it wouldn't be considered. Mackey closed with NWP and NWD are not going forward with the test. If there is a desire to pursue a test it will need to be elevated.*
- 3.2.3.** [Oct 14] TDA Avian Hazing. **ACTION:** Mackey and Cordie will collect the information for what hazing occurred in 2010 – 2012. **STATUS:** *Cordie sent the following information on 14 October:
2010 - 8 hour shore hazing from May1-July31. Might have borrowed the boat from JDA early in the season.
2011 - 16 hour boat hazing from May1-July31.*

2012 - 16 hour boat hazing from May1-July31. Extended to August7 due to bird numbers.

Present - 14 hour shore hazing from Apr16-July31

Some other info;

-Minimal boat hazing when shared with JDA. Usually only the first week or 2 when birds were higher at TDA than JDA.

-2011 high flow year credited for decreased predation and high survival

-2010 steelhead survival substantially lower than 2011

-2011 was first year with improved avian lines

-2010 FFU estimated mid 80K juv salmonids consumed

-2011 FFU estimated 16K juv salmonids consumed

- 3.2.4. [Oct 14] BON ITS gate installation. The repairs are expected to be completed in November. The Project needs about three weeks to install. Proposed dates are 10 - 27 November. **FPOM concurred. ACTION:** This will be included in an MOC to fully document the action.
- 3.2.5. [Oct 14] FGE testing. FFDRWG meeting to be scheduled in late October to discuss the EDR supplement. Rerecich said there is no room available at NWP on 21 October. **ACTION:** Rerecich will send a doodle poll with a new date or he will find a room at another agency. **STATUS: NWP FFDRWG met on 28 October.**
- 3.2.6. [Oct 14] Fish counts. Clipped v unclipped. **ACTION:** FFU will write up the issue for the Regional reps to review, it will include 2013 if problems were found in those counts as well. They will also add a note to the fish count web page.
- 3.2.7. [Oct 14] **15BON002** – Turbine Start-up Operation. Fredricks said this should be included in the Load Shaping Guidelines. **ACTION:** Royer will find out more about the speed no load operation and if the Load Shaping Guidelines cover the 60 minutes.
- 3.2.8. [Oct 14] TDA split flows. (Cordie) Team members include: Bettin, Cordie, Fredricks, Klatte, Lorz, Mackey, Rerecich, Stansell, Wills. Conference call on 3 September. **ACTION:** Need to schedule a meeting to discuss results and plan forward. **STATUS: task group will meet after the January FPOM meeting.**
- 3.3. Completed Action Items or to be discussed later in the agenda.
- 3.3.1. [Aug 14] Noise/vibration task group. **ACTION:** Setter will develop a group to look at the impacts of noise and vibration on fish passage. **STATUS: Conder requested a meeting be scheduled for after the November FPOM.**
- 3.3.2. [Aug 14] Fish counting methods in NWW. **ACTION:** Update NWW fish counting techniques so it is clear if counting is video or visual at LMN and IHR (Moody). **STATUS: Completed.**
- 3.3.3. [Jun 14] WFL gate operation. **ACTION:** Hausmann will report back after they exercise *the gates in September*. **STATUS: delayed due to Lock Fest.**
- 3.3.4. [Aug 14] BON ROV inspection. **ACTION:** Hausmann will propose an inspection of the north monolith once the ROV is back if it is before the start of the fall Chinook run. **STATUS: ROV is not yet back however, Royer explained that the junction area had been inspected prior to it going OOS. She said everything looked ok.**
- 3.3.5. [Sep 14] BON Bay 17. Need an update on this. There were thoughts that this had been repaired but apparently this isn't the case. **ACTION:** Royer will get an update and include it in the next weekly report. **STATUS: Bay 17 should return to service by the end of November.**
- 3.3.6. [Sep 14] IHR study. **ACTION:** Trumbo will provide more details as to why this study couldn't occur in November instead of October and will move the study to

November if possible. **STATUS:** Revised Coordination sent out 9/16 and no comments were received.

4. Updates

4.1. NWW Updates.

- 4.1.1. Upcoming maintenance/construction/research activities. Includes already coordinated MOCs.
 - 4.1.1.1. WECC testing possible thru March 2015 at IHR, LMN, LGS, LWG.
 - 4.1.1.2. 14 IHR03 Ogee & Deflector Modification – Revised. Bailey explained the updates in the revised MOC.
 - 4.1.1.3. 14 IHR09 Ice Harbor Dam Study 6.2.1. **UPDATE.** Bailey talked through the revised MOC.
- 4.1.2. NWW adult fish ladder and collection channel winter maintenance schedule. Available online. Have comments by the November FPOM.
- 4.1.3. Transport. Ongoing at LWG, LGS; completed 30 September at LMN. LWG and LGS are truck transporting every other day. Collection for sampling at MCN is completed.
- 4.1.4. MCN fish mortality. Fredricks stressed the need to prevent fish jumping out of the ladder. Dugger said he thinks fish have jumped out twice in the years he has been there. He said there is netting all along the north end and it's about 12 feet high at the south orifices and only 8 feet high at the north orifices. The problem arises when north orifices are open. Dugger suggested the solution would be to raise the netting up 12 feet but felt it would be an expensive solution to a relatively rare event. Fredricks suggested the write-up may not be correct in labeling the fish as unclipped when the photo looks like it is a clipped fish. Regardless of the origin, we should be trying to prevent any fish from jumping out. Morrill said he agrees with Fredricks.

4.2. NWP Updates

- 4.2.1. Upcoming maintenance/construction/research activities. Includes already coordinated MOCs.
 - 4.2.1.1. NWP winter maintenance schedules
 - 4.2.1.2. 14BON08 BI Bridge overlay.
 - 4.2.1.3. 14BON13 and revised 14BON59 T11 and T12 outages
 - 4.2.1.4. 14BON21 FV3-7 inspection in November.
 - 4.2.1.5. 14JDA03 VWW repair. The repairs are needed again. They will be completed during the winter maintenance period.
 - 4.2.1.6. 14JDA13 Hilton valve removal.
- 4.2.2. BON Unit 11 update. December 2014 RTS date.
- 4.2.3. BON ITS gate installation. The repairs are expected to be completed in November. The Project needs about three weeks to install. Proposed dates are 10 - 27 November. **FPOM concurred. ACTION: This will be included in an MOC to fully document the action.**
- 4.2.4. BON TDG monitoring. TDG folks will be doing some work on their pipe in the BON spillway tailrace. Shouldn't require any outages but wanted to keep FPOM informed.
- 4.2.5. TDA-N fish count station improvements. Dalen presented two different light sources for the improvements. One is a flood light that puts out some visible light along with the infra-red, the other is just infra-red. Infra-red will reduce down to black and white on video. **FPOM preferred the infra-red only.** Dalen then explained that Teflon would not be used on the floor; instead it is something similar (UHMW). He explained his concern is that this new stuff is slicker than Teflon. **FPOM is ok with**

using UHMW instead of Teflon. Cordie and Dalen then presented a color sample of the chartreuse (Power bait green). Fredricks said he wants battleship grey. Dalen explained why the green is important. Fredricks said he wants 18% grey. Dalen said the fish are silver against grey and that is difficult to see. Fredricks said the cameras could be adjusted with filters to pick up different color spectrums and that would reduce the need to paint a shocking green color on the crowder panel. Dalen said that option has not yet been explored. Fredricks explained that count stations have always been difficult for fish and TDA-N has been one of the more difficult places on the river. Zorich asked if that isn't why this count station is being tested, because it would impact the fewest fish. Bailey asked about light absorption in turbid water. Dalen said turbid water would make it difficult. **Cordie suggested (and FPOM agreed) starting neutral and then gradually moving towards brighter green until a good color can be found.** Dalen recommended pointing the lights at the wall instead of directly down into the water. The area just above the water surface at the window will be painted lighter and brighter. This will allow the light to bounce off the vertical wall and then down into the water. This will diffuse the light but provide enough for the video and fish counter. This is for the visible light only. The infra-red will point straight down. **FPOM concurred with that.** Dalen switched to kelt counting at the BON JMF. He would like to explore motion activated video. In order to accomplish that, the motion detector installation requires some mods. He would like to plug some of the holes to allow for better video counting. Lut asked what the trade-offs might be since there appears to be utility to keeping the bars and then plugging the holes would introduce debris to the river. Fredricks and Dalen said there are many holes and this would not be a big impact to the functionality of the separator bars. **FPOM concurred with the action.**

4.2.6. JDA fish mortalities. FPOM determined the mortalities were rare in number.

4.2.7. WFL gate operation. Royer reported the gates were exercised two days ago. There was a steelhead in the second pool. Flushing will be attempted today.

4.3. Research/FFDRWG updates. Approval letters, permits, etc located at www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/NWP%20Research/Research.html

4.3.1. B2 Trashrake. No update.

4.3.2. FGE testing. FFDRWG meeting to be scheduled in late October to discuss the EDR supplement. Rerecich said there is no room available at Block 300 on 21 October.

ACTION: Rerecich will send a doodle poll with a new date or he will find a room at another agency.

4.3.3. AFF mortality reporting. Rerecich reported sample morts are down.

AFF Mortalities as of Oct. 9th in 2013 and 2014

Species	2013	2014
Chinook	92	14
Sockeye	10	11
Steelhead	1	2
Coho	11	0
Lamprey	42	31

4.3.4. CRITFC AFF PIT tag detector. Fryer presented the plan for the PIT tag detector.

The previous location was too noisy so a new location has been chosen and is less noisy. Fryer said he wanted the detector where fish enter into the AFF. He said more noise testing is needed. This detector is full duplex. Fredricks asked what the point of the detector is. Fryer said he wants to know how long fish spend in the AFF.

Fredricks asked if there was any hydraulic analysis to go along with the plan. Rerecich said he would like to have the NWP hydraulic engineers look at the proposal. Wills said if the detector is rounded, it will probably be fine for lamprey. Fredricks asked about velocities. Fryer didn't immediately have that information. Fredricks expressed concerns about blocking the entrance as much as this detector does. He suggested it be removable. . **FPOM was ok with the exit section detector but the entrance detector needs to have a hydraulic review.** This will be carried over to November.

4.4. RCC update.

Project	Previous day average (kcfs)	5 day forecast average (kcfs)	10 day forecast average (kcfs)
LWG	18	22	17.5
MCN	103	91	93
BON	106	98	100

4.5. Lamprey updates. Zorich reported that the trap and haul from Bonn LFS and JD north ladder LPS has ended and they are OOS until next season. The volitional passage LPSs will remain in operation until early November. Zorich reported the adjusted count 119,000 at BON. The 2014 adjusted count is the highest since 2011.

4.6. Avian. Fredricks wants to talk about avian hazing effort at TDA. This will be an update in November. **ACTION: Mackey and Cordie will collect the information for what hazing occurred in 2010 – 2012.**

4.7. Critical Infrastructure. Bailey presented the spreadsheets from the Projects. Mackey will post to the FPOM website.

4.8. BPA updates. No Updates.

5. **Coordination/Notification forms (need concurrence).** Fredricks took a moment to stress the need to take a look at fish impacts and make sure fish numbers and impacts have been considered and discussed in the MOCs.

5.1.1. 14BON77 UI test request. Zorich presented the MOC. All Washington Shore work will need to occur in November because the ladder will be dewatered after December. **FPOM Concurred.**

5.1.2. 14 MCN23 Ladder Outage for Dive to Recover Camera Equipment and to Remove Floating Orifice for Repair. Dive moved to 10 November instead of 3 November. WDFW and NOAA complimented Dugger on his MOCs. **FPOM concurred.**

5.1.3. 14 MCN24 Fish Pump Outage for Electrical Upgrade. **FPOM concurred.**

5.1.4. 14 LGS12 Installation of Power Transformer. Hevlin would like to see the outage starting on 13 November or later. BPA suggests the afternoon and evening hours. **FPOM concurred.**

6. **TDA adult attraction spill test.** Fredricks started out saying it was a stunning success. Rerecich said it was great that we tested both 6 kcfs and 4.5 kcfs for bay 1 as it confirmed what was seen at ERDC. Fredricks said it would be nice to test the two bay plan. Cordie recommended carrying the testing forward. Fredricks said the test showed we could move fish and we took the peak off TDA-E passage. He would have liked to have seen a bigger change but the results are still promising. Rerecich suggested the two bay operation (Bays 1 and 2 at 7.5k each) would be the next step in testing. Wertheimer asked what the issue is – travel time or density? The key question is whether or not there is a problem. The task group will convene over the winter to discuss further.

7. **Fish counts – clipped/unclipped split.** Stansell reported that in 2014, the index counting of clipped and unclipped fish didn't happen on every shift. What started with a comment from one counter turned out to be a problem all the way from BON to LWG. Counters were not meeting the contract

requirements of indexing clipped/unclipped fish. This means the counts sent out from USACE are incorrect. Stansell asked how important those index counts are to the Region. The problem is with Chinook and coho. Steelhead appear to be accurate. **ACTION:** FFU will write up the issue for the Regional reps to review, it will include 2013 if problems were found in those counts as well. They will also add a note to the fish count web page.

8. **Updating FPP change form 14BON001.** Bettin was not available for the meeting so this will carry over to November.

9. **Fish Passage Plan:** The 2015 FPP draft sections and change forms are online at: <http://www.nwd-wc.usace.army.mil/tmt/documents/fpp/2015/index.html>.

9.1. 1 November – NWP and NWW change forms are due.

9.2. 15 December – Regional change forms are due.

9.3. Appendix A – include when/where each item had been coordinated. NWP has used Appendix A for research and construction. NWW uses Appendix A for maintenance. Appendix A utility was discussed. NWW will review their use of Appendix A.

9.4. Change forms - 2015:

9.4.1. **15BON002** – Turbine Start-up Operation. Fredricks said this should be included in the Load Shaping Guidelines. **ACTION:** Royer will find out more about the speed no load operation and if the Load Shaping Guidelines cover the 60 minutes.

9.4.2. **15BON003** – DSM Orifice Control Table BON-7. Fredricks said the orifice openings are directly tied to the forebay.

9.4.3. **15BON004** – FOG SLEDs. *Approved.*

9.4.4. **15BON005** – B-Branch Entrance Gates.

9.4.5. **15MCN002** – Work Near Fishway. *Pending further review by the subcommittee.*

9.4.6. **15IHR001** – Work Near Fishway. *Pending further review by the subcommittee.*

9.4.7. **15LMN001** – Work Near Fishway. *Pending further review by the subcommittee.*

9.4.8. **15LGS003** – Work Near Fishway. *Pending further review by the subcommittee.*

9.4.9. **15LWG001** – Work Near Fishway. *Pending further review by the subcommittee.*

9.4.10. **15AppL001** – Avian Monitoring & Deterrence Plans *Updated and available on the FPP website.*

9.5. Potential FPP change forms.

9.5.1. BON split flows. Additional trigger to operate more units at PH1.

9.5.2. BON AFF pickets. Additional triggers when fish numbers are high and reducing the number of leads allowed. Assigned to the AFF mods TG.

9.5.3. NWW transport projects. 2013 operation for columnaris needs to be included in FPP.

9.5.4. Overview. Getting MFRs covered in the FPP.

9.5.5. Speed no load definition and time spent at speed no load.

9.5.6. Appendix C Load Shaping Guidelines. Needs to be updated.

10. Task Group Updates.

10.1. Noise impacts task group. (Setter and Conder). Team members include: Conder, Cordie, Fredricks, Hevlin, Lorz, Mackey, Setter, and others as needed. **Meeting scheduled for after the November FPOM.**

10.2. Pinniped Task Group. (van der Leeuw). Memo was sent to FPOM regarding the pinniped monitoring and hazing activities.

10.3. TDA split flows. (Cordie) Team members include: Bettin, Cordie, Fredricks, Klatte, Lorz, Mackey, Rerecich, Stansell, Wills. Conference call on 3 September. Need to meet to discuss results and plan forward.

10.4. BON Ops. (Lorz) Team members include: Benner, Bettin, Fredricks, Hausmann, Lut, Mackey, Meyer, Rerecich, Stansell, Wills. **Met on 25 June.**

10.5. AFF mods (Rerecich). Team members include: Benner, Fredricks, Lorz, Mackey, Meyer, Rerecich, Royer, Stephenson, and Whiteaker. Appendix G will be modified to reflect the recommended raking level and the recommended water elevation.

11. Annual BBQ. 14 FPOMers showed up and enjoyed lots of great food and good company.

