



FISH PASSAGE CENTER

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MEMORANDUM

To: Fish Passage Advisory Committee (FPAC)

From: FPC Staff

Date: June 3, 2019

Subject: Action Notes from May 24, 2019 FPAC conference call

On May 24, 2019, FPAC met for a special conference call to discuss LGS Operations. The following people participated in the meeting/call:

Paul Wagner (NOAA, co-chair)	Erick Van Dyke (ODFW)
Brandon Chockley (FPC)	Jay Hesse (NPT)
Erin Cooper (FPC)	Russ Kiefer (IDFG)
Gabe Scheer (FPC)	Dave Swank (USFWS)
Dave Benner (FPC)	Claire McGrath (NOAA)
Bobby Hsu (FPC)	Tom Iverson (YIN)
Charles Morrill (WDFW)	

AGENDA ITEMS

Little Goose Operations (00:00:00-01:17:30)

- Paul Wagner (NOAA) opened the meeting noting that the reason for this special meeting was to continue the discussion from TMT this past Wednesday. There was a proposal to go to 8 continuous hours of 30% spill at LGS. Paul's view in looking at the DART tool and adult counts at LGS, we continue to have delay.
- Claire McGrath (NOAA) noted that she visited all four projects in the Snake River. While at LMN, project biologist at LMN noted that, as fish accumulate in the LMN pool, fisherman are hammering them. There are lots of fishermen and they are hitting their

limits. Independently, biologists at LGR noted that observing jaw damage on fish and pulling hooks out of fish returning in the LGR ladder. Claire is concerned that there is a lot of fishing pressure as they are holding up below LGS.

- Charlie Morrill (WDFW) provided an update on the fishery below LGS. Creel census this weekend showed a total catch of 246 Chinook adults, small number of jacks. Checked on the bank, 90 fish Saturday night. Quota is about 400. There will be a one day opening on Sunday [*sic* Monday] and then they will close it. Thought that will be at their quota. For that fishery to be that successful, there were a lot of fish in the eddy along the bank and bank anglers were doing well with them.
- Paul Wagner (NOAA) reviewed the DART tool for delay. Top graph still showing black dots, indicating <50% of fish arriving at LGS within three days. Dave Swank (USFWS) noted that the black dots are based on a running three day total. Dave noted frustration with running three day cohort, as it takes a few days for the graph to catch up from changing conditions. Paul asked what the most recent counts at LGS (453 today and 1,100 yesterday) would indicate. Dave responded that, yes, there was a delay but continues to be frustrated by the 3-day cohort. Dave prefers to use the daily table. Since May 21 and May 22, have had flex spill where able to drop down to 30% spill. Clearly saw a response on May 21 and May 22. Drop on May 23 was larger than expected but not too much of a surprise. Clearly had a bottleneck of fish that needed to move out. IHR and LMN counts have been decreasing over recent days. Paul noted that there are still ~4,700 fish that were counted at LMN that have not been counted at LGS. Brandon Chockley (FPC) noted that need to subtract most recent 2-days of counts when comparing LMN and LGS, to account for travel time between the projects. Dave Swank noted that there are clearly fish still out there that haven't shown up at LGS but main driver that was causing the bottleneck is no longer there, as spill has been manageable in recent days. Projected flows not expected to be in uncontrolled level. This is why Dave proposed establishing a threshold flow at LGS where involuntary spill is likely, have COE shift more 30% spill hours to the morning.
- Paul Wager (NOAA) noted that he hears Dave's points but his perspective is that the data are saying there is a delay. Unclear whether delay will work its-self out. With this low a run (30% of 10-year average) and a fishery taking more from this low return, would go with a cautious route, given a three day weekend, and move to 8-hours continuous 30% spill at LGS. Charlie Morrill (WDFW) noted that the fishery below LGS is only scheduled for Memorial Day.
- Dave Swank asked for clarification on the fishery numbers. What time period were the 246 fish caught over? Charlie noted that he 246 is the total caught to date for the adult fishery. Expectation is that will take another 90 fish on Monday and that will put them close to the allowable total catch for spring Chinook adults (~350-400). Dave Swank noted that he has mixed feelings about this high a rate of catch. On one hand we want fish to make it upstream but on the other hand, we stock these fish so anglers can catch them. Assumes that WDFW regulations are appropriate when setting catch limit. Charlie noted that, for the bank fishery to have as high a success rate as was observed this past weekend, there were a lot of fish below LGS waiting for the conditions to improve to pass the project.

- Charlie noted that projections are indicating flows will increase over the weekend to necessitate uncontrolled spill. Brandon Chockley (FPC) asked for clarification as to whether uncontrolled spill is expected for this upcoming weekend. Paul Wagner (NOAA) indicated that this is unlikely to occur. Based on current forecast, flows this weekend should be similar to what we observed yesterday.
- Based on the recent decrease in counts at LGS, and upcoming 3-day weekend, Paul Wager (NOAA) reiterated that we need to do something now and not wait for the weekend. Paul is proposing that we go to 8-hours for couple days and then go back to 5-hours. Erick Van Dyke (ODFW) noted that he has a different opinion. Given that the conditions are not expected to be uncontrolled, there is not a need to change things beyond what we've done so far. Should just let it function. If we see problems with it, we should deal with it later.
- Charlie Morrill (WDFW) asked about uncontrolled spill at LGS. At what flow level does uncontrolled spill occur at LGS? With current powerhouse capacity, LGS can still spill 30% at flows of ~130 Kcfs. Anything above that will necessitate spill above 30%.
- Paul Wagner (NOAA) went back to the DART tool, which is indicating a lot of fish have not made it to LGS. Also reviewed the FPC Passage Indicator. Brandon Chockley (FPC) went through results from FPC Passage Indicator. FPC tool indicating that observed IHR-LGR conversion has been inside the 70% prediction interval. Count graph (upper left) does not have data for May 23. Travel time histograms indicating larger distributions of 3-, 4-, and 5-day travel times from LMN-LGS but nothing too severe. IHR-LGR histogram indicating slightly higher proportion in the 4-day range, lower proportions in the 6-, 7-, 8-day range but higher proportions in the 8- and 9-day ranges. Brandon also noted that the FPC Passage Indicator bases predictions on current environmental conditions and how they may affect travel times and conversions.
- Russ Kiefer (IDFG) noted that he is uncomfortable with FPC Passage Indicator using travel times, which are dependent on fish making it to LGS. If delayed fish haven't made it to LGS, their travel times will not show up in the graph yet. When they do show up, this distribution will shift to the right. Brandon noted that this is incorrect. A fish that was delayed over the weekend but potentially made it to LGS in the last day or two would be in the graph. Russ clarified what he was saying, fish that passed LMN in the last couple of days but have not made it to LGS are not on this graph. When/if they do show up, the travel time distribution will shift to the right. Brandon noted that these graphs have always been behind by a couple of days as fish move from one project to the next.
- Russ Kiefer (IDFG) also noted that another concern of IDFG is that FPC Passage Indicator does not indicate a problem until fish have already been impacted because of the need to wait for fish to have passed LGR. For in-season management, we have to wait too long to see an impact. Another concern is when you look at DART conversion page, historic conversion rates are in the high 90% range. Currently in the mid-80% range for fish that passed LMN a while ago. It appears we are losing conversion. Noted conversion rates in low 80% range for fish passing LMN between May 14-16.

- Russ Kiefer (IDFG) reviewed the FPC adult count graph for spring Chinook at IHR. Russ noted that the spring Chinook run at IHR appears to be tapering off and is at a low numbers. IDFG has closed the opportunity to for spring Chinook fishing in the Clearwater River Basin and there is a concern that hatcheries may not make egg take. IDFG also concerned about wild fish. Lastly, Russ asked those that seem to be opposed to NOAA's proposal, why are you opposing their desire to provide better conditions for adult passage? Russ noted that the proposal does not change the amount of 30% spill, just changing the amount of time from 5-hours in the morning (3-hours at night) to 8-hours in the morning.
- Dave Swank (USFWS) noted that he would not oppose a change to 8-hours in the morning. The disagreement is in how to interpret the data from the tools. Dave noted that he has not looked at the total conversion rate to date and how that compared to past years at this time (but assumed it's on the low side). Presumably, some fish that don't convert to LGS are caught in the fishery. Dave asked, is there is a thought that the WDFW harvest limit is too high. Russ noted that the estimate of 250 currently, their creel survey can't be off by so many that it explains the 3,000 fish that are currently missing in the LGS count.
- Russ Kiefer (IDFG) noted that ~3,000 fish have not passed LGS yet that should have passed by now. NOAA has a proposal to change hours of performance standard spill. He has a concern that hearing resistance to this proposal.
- Jay Hesse (NPT) suggested that FPAC needs to focus on a recommendation for operation. Jay noted that we don't have perfect data. Need to focus on balance between adults and juvenile passage. Jay proposes 2-fold approach:
 - Controlled Spill: 6 hours of 30% spill in the morning, 2 hours of 30% spill in the afternoon/evening (starting now) (herein referred to 6/2 in the notes).
 - Uncontrolled Spill: 6 hours of 30% spill in the morning (0400-1000) with ponding
- Dave Swank (USFWS) noted that he likes the proposal to divide recommendations into controlled vs. uncontrolled spill operations but is not sure about the 6/2 operation. Preference would be to do all 8 hours in the morning. Seemed to work in the last couple of years.
- Claire McGrath (NOAA) asked whether the 2-hours in the afternoon/evening would be enough time for fish to transition and move. Jay noted that the two hours in the afternoon/evening, in controlled spill conditions, is not motivated by adult passage. It does provide adult passage opportunity but still tries to spread out juvenile passage high spill within the morning and pm hours, as originally intended by the Flex Spill Agreement. Recollection is that when we started the special operation in 2018, with uncontrolled conditions, we started with a 6-hour period in the morning and expanded from there, mostly because we could. Hope is that 6-hours in the morning is sufficient and does not box other parties into abandoning the concept of am and pm blocks.
- Charlie Morrill (WDFW) noted that still seeing high numbers of juveniles passing LGR and LGS, mostly subyearling Chinook.
- Charlie also asked Gabe Scheer (FPC) about the Passage Indicator, was there any indication when we looked back at last year that the deviation of what was expected

resulted in an impact of adult moving upstream? Gabe asked for clarification. Do you mean in terms of adult success? Charlie confirmed that he was asking about adult success above LGR. Gabe noted that the FPC has added 2018 data to the adult success/travel time analysis and did not see any evidence that the delay observed in 2018 had lower success to their basin of origin. FPC will release an update to that analysis soon. Charlie asked, what is FPC perception for fish that did delay, is the delay within the scope of the initial analysis? Gabe asked for clarification on the question. Charlie clarified, the 2018 analysis indicated that a 20-day delay was a problem, in terms of adult success above LGR. In 2018, we saw deviation from expectation. Did the deviations in travel time that we observed in 2018 cause lower success for those fish that were delayed? If we saw an impact in 2018, then this would suggest we need to do something different. Gabe Scheer (FPC) clarified that we may be mixing up the 2018 FPC analysis on delay and adult success above LGR and the FPC Passage Indicator. What the 2018 analysis showed was that travel time was not a good predictor of survival to the basin of origin for hatchery Chinook. Same analysis indicated that fish with travel times above 20-days (IHR-LGR) had differential survival to the basin of origin for wild Chinook. When look at the data on a granular level, see lots of fish with travel times in the 30-40 day range that still make it up to their basin of origin. Whether this means eggs in the gravel is not known. Making it to your basin of origin indicates that you may be spawning.

- Russ Kiefer (IDFG) asked what the alpha and beta were on the 2018 analysis. Russ clarified that he thought the alpha is what confidence intervals were set and the beta is how big a difference there could have been and not detect it based on the data you have the and the alpha that was chosen. Gabe noted that he did not know these numbers off the top of his head but suggested looking at the memo. Russ noted that the memo did not describe the beta.
- Russ noted that IDFG's concern with this analysis is that the number of fish is pretty small. Concern that FPC used an alpha of 0.05 when the CSS uses an alpha of 0.1 when reporting SARs. IDFG thinks alpha of 0.1 is more appropriate when dealing with PIT-tagged adults.
- Other concern is that there could be a real difference in detection rates at the upstream arrays and not be detected with the alpha that was chosen. Gabe noted that this is a reasonable point. Russ reiterated that CSS uses 0.1 when reporting SARs. Gabe noted that the alpha that was chosen was not the sole basis for the conclusion. Looking at all of the models and evidence presented, travel time was not a good predictor of success to their basin of origin.
- Russ noted that another concern they had is that the analysis relied on survivors to LGR. Any fish that were lost between LMN and LGR were not part of the analysis. There was no recognition of this potential bias.
- Gabe reiterated that, having looked at the data at a granular level, there are quite a few fish that take 20-30 days to get to LGR and they still do convert. Looks like we've had low conversion over the last week or so. Even the FPC Passage Indicator is suggesting some delay over the last week or so, particularly the figure based on counts.

- Russ Kiefer (IDFG) noted that the morning and evening periods in the Flex Spill agreement was not for fish, it was for power marketing. If BPA is willing to give up the evening power marketing flex at LGS. Russ asked Paul, is BPA willing to give up evening power marketing period. Paul noted that, yes, BPA is willing to give it up. Russ noted that, since BPA is willing to give up the evening marketing period, what is the impact to juveniles if we move the reduced spill from the afternoon to the middle of the day? This is really what we are talking about with NOAA's proposal. Russ noted that he does not think moving the lower spill period from the evening to mid-day will have an impact on juveniles. Russ noted that he is struggling with Jay's proposal for 6/2 in controlled situations but he does appreciate the proposal for 6-hours of reduced spill (with ponding) during periods of uncontrolled spill.
- Russ Kiefer (IDFG) introduced a new proposal:
 - Controlled Spill: 8 hours of 30% spill, starting in the morning.
 - Uncontrolled Spill: 6 hours of 30% spill in the morning with ponding
- Brandon Chockley (FPC) reiterated that he questions at hand are:
 - Are people comfortable with changing from 5 hours of 30% spill in the morning (+ 3 hours in the afternoon/evening) to 8 hours of 30% spill in the morning? and,
 - Do we think that increasing from 5 hours to 8 hours is going to have a significant impact on adult counts at LGS?
 - Unclear is changing from 4/4 to 5/3 on Tuesday (May 22) had an impact. The presumption is that changing to 6 or 8 hours will be better but we don't know. Paul Wagner (NOAA) indicated that 8-hours seemed to work last year. What NOAA does not want to see is no action at all.
- Paul Wagner (NOAA) noted that if the 6/2 proposal is what is agreed to, NOAA would not object. Paul asked for clarification on the Uncontrolled Spill proportion of the proposal. Jay noted that it would be similar to the 2018 operation (main difference is that it would be 6 hours this year but did it for 8 hours in 2018). When in uncontrolled spill, cannot cut spill back to 30% without ponding. In order to get spill levels down to 30%, would pond water in the forebay for 6-8 hours.
 - Charlie Morrill (WDFW) noted that he is ok with Jay's proposal for 6/2 during controlled spill.
- Russ Kiefer (IDFG) asked, at this point, what would people object to out there. If someone objects to going outside of 5/3, we can't go forward with any of the proposals we've discussed so far. Russ asked, does anyone object to going outside of 5/3?
 - Charlie Morrill (WDFW), Paul Wagner (NOAA), Russ Kiefer (IDFG) all noted that they would not object to going outside of 5/3.
 - Erick Van Dyke (ODFW) noted that the premise to begin with is not very strong, not a hypothesis based test. If asking if ODFW can tell BPA that they can do more than 5/3 or change the hours they flex, this is not up for debate. Russ Kiefer (IDFG) asked for clarification...if we propose the 6/3 or 8-hour operation, would Oregon object? Erick noted that Oregon would not object or elevate. Premise that is being used is what makes this a frustrating conversation. Most people have arrived at their opinion that we have to do something while we spent a lot of time developing a plan to do something. Not using hypotheses

testing criteria to make decisions, just feeling better about doing something. Russ noted that we did an operation that clearly worked last year and it's not just guesswork and have to make decisions on the best available data that we have. Erick noted that the Flex Spill Agreement had a plan to deal with delay and changing that is just tinkering. Oregon does not think we are fixing the problem by reacting 5-days later. Russ noted that we are not trying to fix what happened five days ago. The concern is that we will continue to see a problem if we don't do something. Discussion during Flex Spill conversations was that these 4- to 5-hour of flex spill in the morning would resolve the issue but if we do have adult delay, we will address it through adaptive management. By our read of the data, we have adult delay and we are requesting that we implement adaptive management to address the delay. Brandon Chockley (FPC) noted that Erick answered Russ's question, Oregon would not object or elevate to RIOG. Brandon suggested that we move forward. Erick noted that we have a manager responsibility to do something but there is disagreement on characterization of what the issue is. Oregon will not stand in the way of this being done. Oregon does not agree with what's being said and asked, what are we hoping to get to today?

- FPAC has two choices in front of them for controlled spill periods: 1) 8-hours of 30% spill in the morning or 2) 6-hours of 30% spill in the morning and 2-hours of 30% spill in the afternoon/evening. Another choice is to deal with what to do during periods of uncontrolled spill, if they occur.
- For clarity, Brandon Chockley (FPC) proposed we deal with the two proposals for controlled spill first. Since it's the more extreme choice, are there any objections to 8-hours of 30% spill in the morning? Paul noted that Nez Perce and Oregon are the primary owners of the agreement. If one of the owners wants the 6/2, NOAA would not object to that. Charlie Morrill (WDFW) noted that, if we are in controlled spill, Washington is uncomfortable with 8-hours of 30% spill in the morning at this time. Washington is ok with the proposal for 6/2. Dave Swank (USFWS) also noted that they are not comfortable with the proposal for 8-hours of 30% spill but are ok with 6/2 proposal. However, USFWS would not object to 8-hours of 30% spill in the morning.
- Are there any objections to the proposal for 6/2? Russ Kiefer (IDFG) asked for clarification on whether Washington would object to 8-hours of 30% spill or it just not their preferred option. Charlie noted that Washington would object to 8-hours of 30% spill in the morning. There were no objections to the proposal for 6/2. This proposal for 6/2 (under controlled spill situations) will be communicated at TMT. Should plan to do this operation at least through Tuesday. Six hours of 30% spill will be 0400-1000. Two hours in the afternoon/evening will be flexible but recommendation would be for 1700-1900.
- FPAC switched their focus on what to do if under uncontrolled spill. Revisited Nez Perce proposal to restrict spill to 30% from 0400-1000, resulting in ponding. Ponded water would be released after 1000 in order reset pool level for next day. Brandon Chockley (FPC) noted that this different from 2018 operation for two reasons: 1) period of reduced spill if 6-hours instead of 8-hour period that was done in past years and 2)

current proposal has COE releasing ponded water immediately at 1000 instead of passing inflows for some number of hours before releasing ponded water. Jay noted that the Nez Perce does not have a preference on how/when the stored water is released. Russ Kiefer (IDFG) noted that his preference would be to allow some period of passing inflow before releasing stored water at night. Jay Hesse (NPT) suggested that removing water should be consistent with what was done in 2018. Agreement that 6-hours of 30% spill should be followed by 4-hours of passing inflows and then release stored water over the evening.

Coordination for Other Scheduled Meetings (01:17:30 – 01:13:40)

- Due to holiday weekend, next week's FPAC call (May 28th) will be at 1:00 pm

These minutes have been reviewed and approved by the Fish Passage Advisory Committee.