COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM
May 8, 2019
DRAFT Facilitator's Summary
Facilitator: Emily Stranz; Notes: Colby Mills, DS Consulting

The following Facilitator's Summary is intended to capture basic discussion, decisions, and actions, as well as point out future actions or issues that may need further discussion at upcoming meetings. These notes are not intended to be the "record" of the meeting, only a reminder for TMT members. Official minutes can be found on the TMT website: http://www.nwdwc.usace.army.mil/tmt/agendas/2019/.

Water Supply Forecasts
Chris Runyan, BOR, began by providing the TMT with an update on the official May water supply forecast for Hungry Horse Dam. The final May to September forecast is 86% of average. The forecast dropped slightly, by 1%, from the March forecast for that same period, setting minimum flow at Columbia Falls at 3,480 cfs, and 870 cfs below the dam. The midnight elevation was 3,532.08 feet.

Doug Baus, Corps, reported the official May water supply forecast for Corps projects:

- **The Dalles**: NWRFC April to August volume forecast (5 days QPF) is 94% of average;
- **Lower Granite**: NWRFC April to July volume forecast (5 days QPF) is 117% of average;
- **Libby**: Corps NWS April to August volume forecast is 85% of average;
- **Dworshak**: Corps NWW April to July volume forecast is 100% of average;
- **Grand Coulee**: NWRFC April to August volume forecast (5 days QPF) is 86% of average; and
- **Albeni Falls**: NWRFC April to August volume forecast (5 days QPF) is 94% of average.

In terms of monthly precipitation for May so far, it's been very dry in the Snake River Basin. Above Ice Harbor Dam, May precipitation is 10% of normal. The Upper Columbia River Basin above Arrow Dam is 27% of normal, and current month observed precipitation in the Columbia River mainstem above The Dalles is 10% of normal. Seasonal precipitation is 50-90% of average in Upper Columbia River Basin, while the Snake River starts at 90-110% of average in some areas then trends down to 70-90% of average.

Regional temperatures are below normal, with the Snake River Basin above Ice Harbor Dam at 0.8 degrees F below average, the Upper Columbia River Basin is 5.8 degrees F below average, and the mainstem above The Dalles is 0.8 degrees F below average.

Looking ahead at the 10-day precipitation forecast there is some rain expected, however, not likely in the Upper Columbia River Basin. The 5 and 10-day forecasts show well below average precipitation.

The climate forecast shows a probability of above average temperatures, with a probability of above average precipitation in the 6 to 10-day outlook. Looking out 8-14 days temperatures are below average in the southern Columbia River Basin, normal in the central basins, and above average in the north. The 30-day outlook reflects variability throughout the basin. There is a probability of above average temperatures in the western part of the Columbia River Basin, equal chances in the central areas, and below average in the east. There is a probability of below average precipitation in the west and equal chances in the remainder of the basin.

Dworshak Operations
Jon Roberts, Corps Walla Walla, provided an update on the current hourly data at Dworshak Dam. The project is still discharging at the maximum powerhouse of 9.7-9.8 kcfs and 100 cfs through the hatchery. Current elevation is 1,568.46 feet and has been steady over the past few days as they match inflows with discharge. The pool is expected to fill slightly, as outflows are dropped for the planned unit outage; the

outage starts at midnight tonight. The project will step down again at midnight on May 12 for a second unit outage which is expected to last a few days.

Flows at Orofino are high and it is expected that this will help out-migrating fish in the Clearwater River and down into the Snake River. Jon noted that snow is beginning to melt off in the Dworshak Basin, and there is a snow flight is scheduled for the beginning of June.

Jon showed two operational scenarios using 2013 (same volume of snow but no rain) and 2003 (same volume of snow but more rain in May and June). Significant rain is not forecasted, however, if there was heavy precipitation the Corps would revisit Dworshak operations with the TMT. Russ Kiefer, ID, and Jay Hesse, Nez Perce, appreciated the coordination and information on the unit outages. Jay noted that the hatchery moved up their sub-yearling release date to utilize the high flows prior to the unit outage.

FOP Spring Spill

Julie Ammann, Corps, reported that the Corps has been operating per the Flex Spill agreement. In the Snake River, three of the four projects are at 120%; Lower Granite is currently at 119%. The Corps is adjusting operations in response to changing conditions and continues to manage this on a daily basis. In the Lower Columbia River, McNary is running at minimum generation and has ranged between 118-119% for the last week. John Day ranged from 119-120% and was primarily able to meet the spill cap. The Dalles last week varied the spill cap from 49% down to 40% with TDG ranging from 118-122%, which from the Corps' perspective was a much more effective way of managing TDG compared to a fixed daily spill cap; however, there continue to be some challenges due to high TDG coming in from John Day.. Bonneville has been constant between 119-120%.

John Day is spilling 168,000 cfs, or about 76% of outflow, for gas cap spill operation and dropping to performance standard spill for flex hours. This is creating higher TDG in the forebay at The Dalles and as a result, The Dalles spill cap has been dropped to 40%, which is the same as for performance standard. Yesterday The Dalles hit 120% TDG, with the John Day tailrace at 119%. TDG from John Day is affecting TDG levels at The Dalles, and they are not seeing much degassing between the projects. The Corps is concerned that conditions may make it operationally impossible to hit 120% in both the John Day and The Dalles tailraces, while maintaining 40% spill at The Dalles. Based on previous discussions at TMT, the Corps is aware that 40% at The Dalles is a lower limit preference expressed by the Salmon Managers, and given that the two projects must be operated in tandem, the Corps sought input from Salmon Managers on operational priorities.

Paul Wagner, NOAA, asked whether dropping the Bonneville pool could help manage TDG in The Dalles tailrace; Julie noted that based off of the Corps' assessment, at these flows it is not likely to reduce TDG. Salmon managers were concerned about increasing passage through the powerhouses at both projects and noted that The Dalles is most efficient at passing fish with 40% spill. Some were comfortable with dropping the spill percent slightly at The Dalles, however, Julie noted that if TDG in The Dalles forebay is 121% they may have to completely cut spill in order to not exceed 120% in the tailrace. This caused significant concern from most Salmon Managers. Jay Hesse, Nez Perce Tribe, and Erick Van Dyke, Oregon, expressed concern that potential options were being prematurely taken off the table, and urged the Corps to consider all options in hopes of maintaining the purpose of the Flex Spill Agreement. They also pointed to the uncertainty of the models being used to determine whether or not an option (i.e., dropping the Bonneville pool elevation) would result in significant TDG decrease at The Dalles.

Some TMT members shared their initial thinking on how to move forward:

- **Corps**: Would like to try to manage TDG by balancing the two projects; needs input from the Salmon Managers on how to prioritize management targets when both cannot be met due to environmental conditions.

- **Idaho**: Objects to dropping below 40% spill at The Dalles, would prefer to raise spill to 43% for optimal passage. Feels that the best thing for fish would be to operate John Day and The Dalles together.
- **Nez Perce:** Would like the Corps to explore all options to meet the parameters of the Flex Spill agreement; would appreciate more assessment.
- **NOAA**: Okay to keep The Dalles at 40%, would like more analysis.
- **Oregon**: Would like the Corps to explore all options and to adaptively manage to reduce PIT PH; priority is to meet 120% TDG in all project tailraces. Will elevate to RIOG if spill at John Day is reduced to manage TDG at The Dalles.
- **Umatilla**: Okay to keep John Day where it is and try to get to 120% at The Dalles; try to keep The Dalles at 40% or more; would like more analysis.
- **USFWS**: Okay with current operation; opposed to dropping below 35-40% spill at The Dalles.
- **Washington**: Objects to dropping below 40% spill at The Dalles; if meeting the 120% TDG target means that spill at The Dalles is decreased drastically, it does not meet the intent of the Flex Spill agreement and is worse for fish (even though it may meet the letter of the agreement).

It was decided that more analysis was required and a meeting was scheduled for Friday morning to continue the discussion. The Corps asked for "bookends" that the Salmon Mangers would like them to try to manage to, for example, maintaining spill at The Dalles no lower than a certain percentage, even if it requires dropping spill at John Day.

- ACTION: TMT will reconvene on Friday, May 10th at 10:00 am for an update on conditions at The Dalles and John Day, and to continue discussions on operational priorities.

Furthermore, due to the impasse among salmon managers regarding operational priorities, NOAA will elevate the issue to RIOG. In the meantime, the Corps will operate to the Flex Spill Agreement, with the intention of meeting but not exceeding 120% TDG in project tailraces, which may mean a reduction in spill at The Dalles below 40%.

- ACTION: NOAA will elevate the issue to RIOG for resolution, suggesting that 40% spill at The Dalles is considered a lower limit.

Tony Norris, BPA, reported that most projects are back to flex hours with reduced flows.

Libby Sturgeon Pulse
Doug noted that the Libby sturgeon pulse SOR will be presented at the May 15th TMT meeting. He requested that any TMT members not attending the next TMT meeting connect with him offline to coordinate prior to the SOR poll on the 15th. The SOR will be posted on the TMT website as soon as possible in advance.

Adult Counts
Paul noted concern about the delay in adult counts at some projects this year, noting that Salmon Managers are aware of the change in contractors, however, are eager to have the data updated to be able to track adult passage. Ann Setter, Corps Walla Walla, noted that the contractors are ahead of schedule and daily counts should be available as soon as the end of this week.

The next scheduled TMT meeting is a call on Friday, May 10, 2019, at 10:00 AM.

This summary is respectfully submitted by the DS Consulting Facilitation Team. Suggested edits are welcome and can be sent to Colby at colby@dsconsult.co.

Columbia River Regional Forum
Technical Management Team OFFICIAL MINUTES
May 8, 2019
Minutes: Melissa Haskin, FLUX Resources

Today's TMT meeting was chaired by Doug Baus, Corps, and facilitated by Emily Stranz, DS Consulting. See the end of these minutes for a list of today's attendees.

1. Water Supply Forecasts – Joel Fenolio, Reclamation, and Doug Baus, Corps

1a. Official May Water Supply Forecast

Joel Fenolio, Reclamation, reported on the May final forecast for Hungry Horse:

- May-July: 1,350 kaf (86% of average)
- January-July: 1,816 kaf (87% of average)
- April-August: 1,730 kaf (89% of average)
- May-September: 1,460 kaf (86% of average)

The minimum flows downstream of Hungry Horse for the rest of the calendar year are:

- Columbia Falls: 3,480 cfs (based on sliding scale)
- Hungry Horse: 870 cfs

Doug Baus, Corps, reported on the May final forecasts for the remaining projects:

- The Dalles Dam April-August runoff forecast with 5 days QPF is 82 MAF (94%);
- Lower Granite April-July runoff forecast with 5 days QPF is 23 MAF (117%);
- Libby April-August runoff forecast is 4,983 KAF (85%);
- Dworshak April-July runoff forecast is 2,438 KAF (100%);
- Grand Coulee April-August runoff forecast with 5 days QPF is 49 MAF (86%);
- Albeni Falls April-August runoff forecast with 5 days QPF is 12 MAF (94%).

1b. NWRFC Monthly Precipitation Table

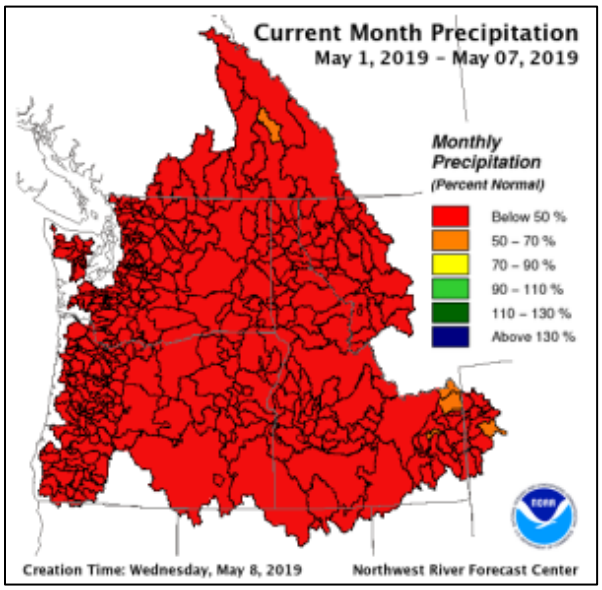
Baus reported that precipitation has been below average so far in the month of May. The Snake River Basin above Ice Harbor Dam and the Columbia River Basin above The Dalles Dam are both at 10% of normal. In the Upper Columbia River Basin above Arrow Dam, precipitation is at 27% of average.

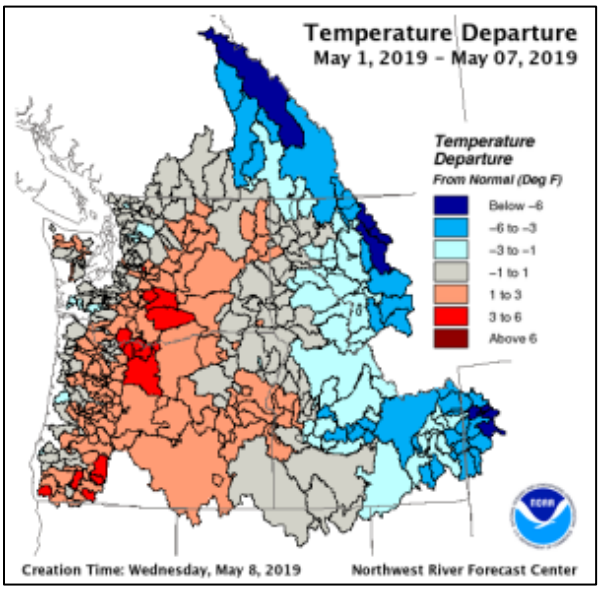
1c. NWRFC Monthly Temperature Table

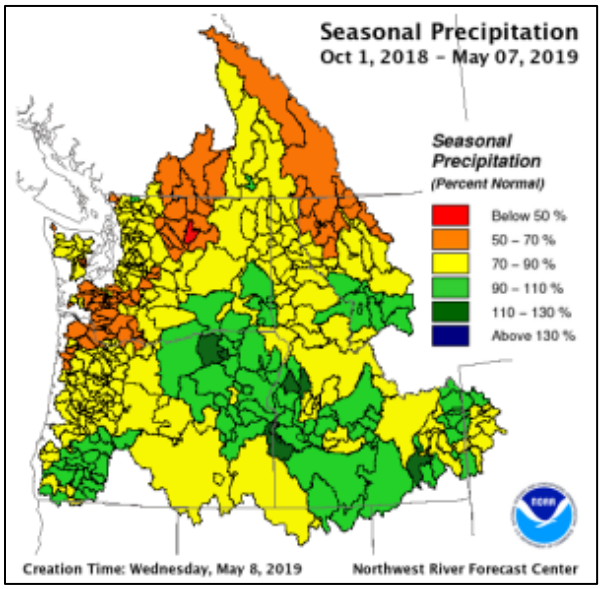
Temperatures so far this month have been below average throughout the region. In the Snake River Basin above Ice Harbor Dam and in the Columbia River Basin above The Dalles Dam, temperatures are running 0.8 degrees F below average. The Upper Columbia River Basin above Arrow Dam is running 5.8 degrees F below average.

1d. NWRFC Current Month Summary Graphics

The NWRFC summary graphics show the recent below average precipitation and temperatures in the Snake and Columbia River basins. Of note is the west and east side of the area are observing different trends, with the west side mostly experiencing above average temperatures while the east side is experiencing more average to below-average temperatures:

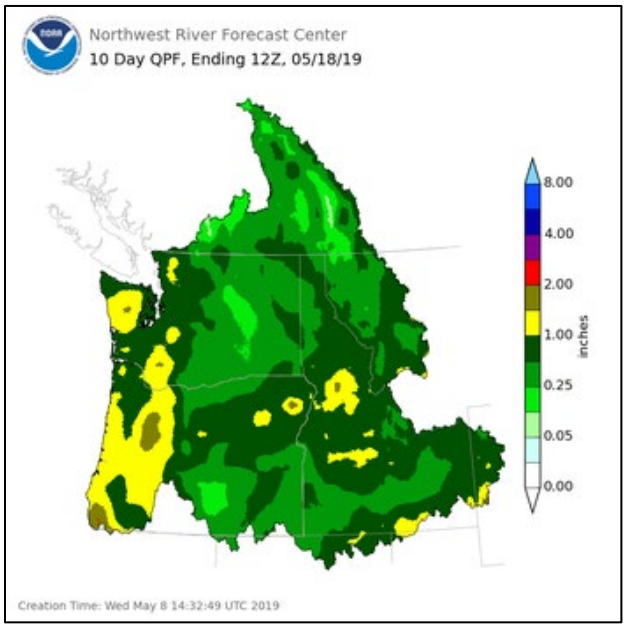




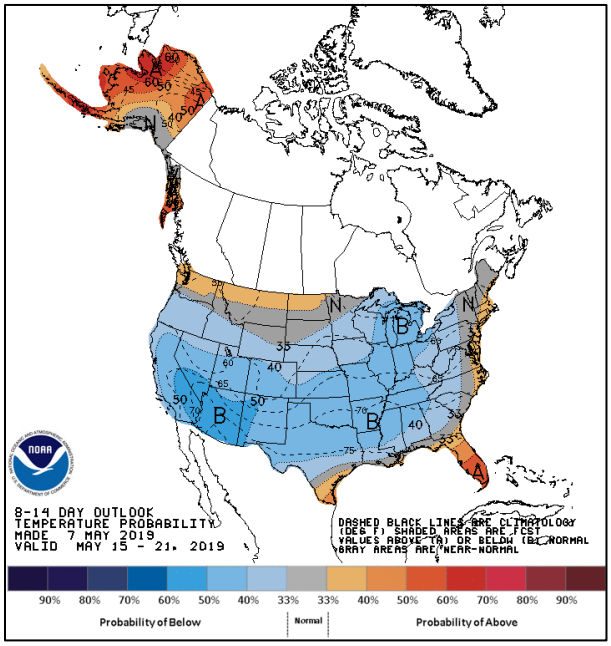


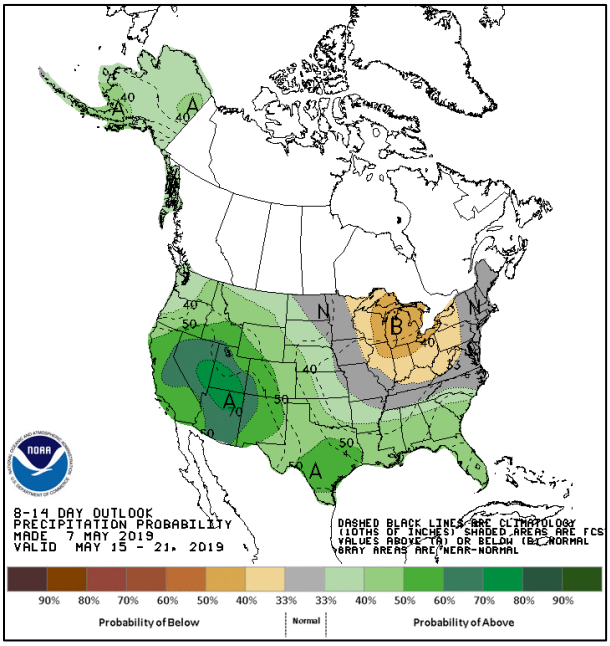
1e. NWRFC Forecast Precipitation Summary

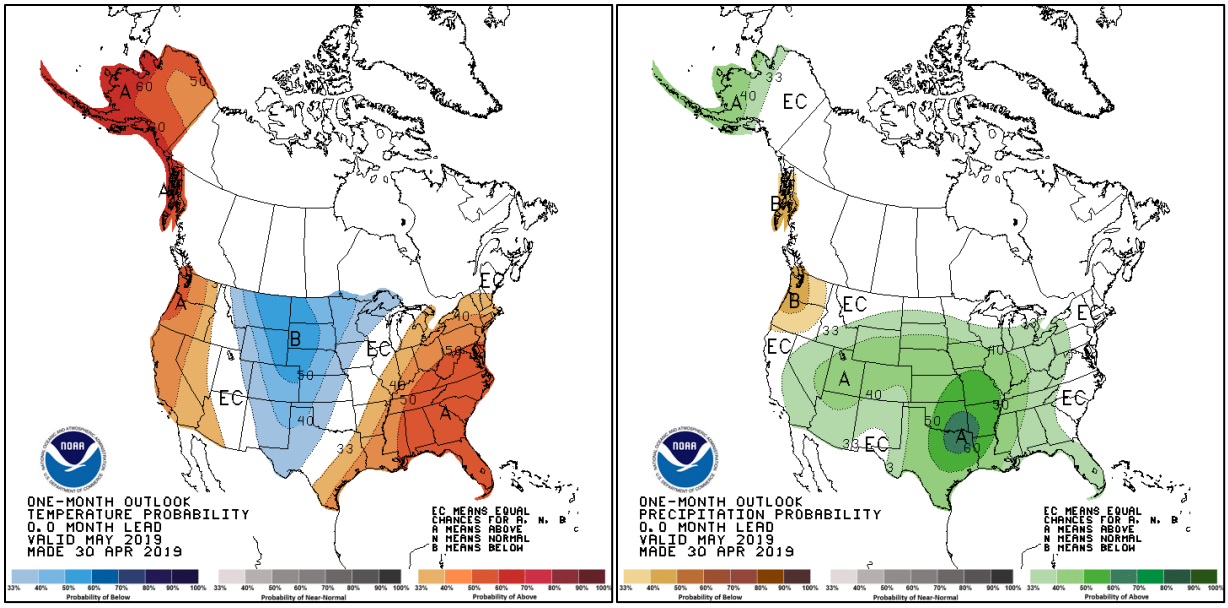
The 10-day forecast shows some precipitation; however, there is variability throughout the basin:



1f. Climate Forecast







2. Dworshak Operations – Jon Roberts, *Corps Walla Walla*

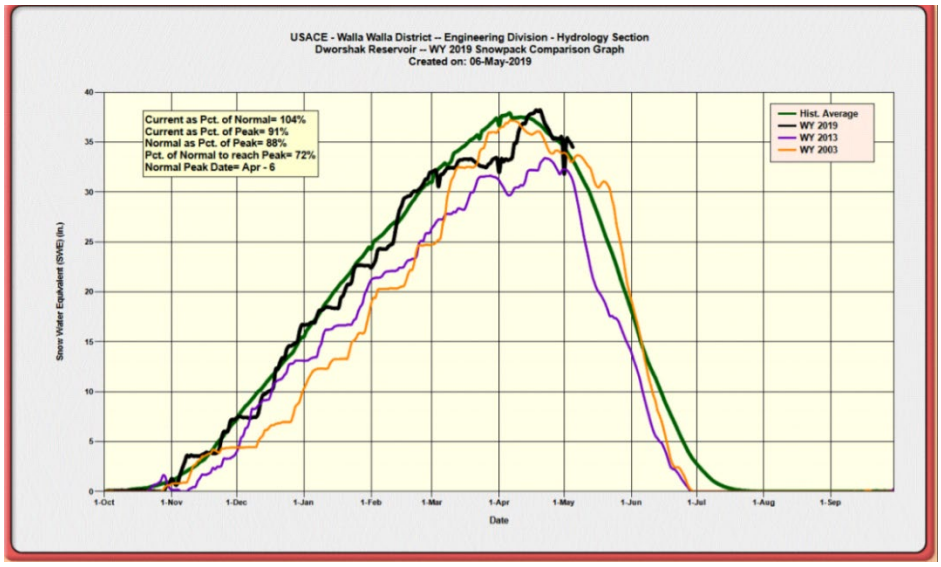
Jon Roberts, Corps Walla Walla, reported on operations at Dworshak Dam. Midnight elevation was 1,568.5 feet, which is about 5 feet below the flood control elevation of 1,573.8. Discharge is currently 9.7 kcfs (full powerhouse). The Corps expects the forebay elevation to rise as units come offline for scheduled outages. At midnight tonight, Unit 3 will go out of service and turbine capacity will drop down to 2 small units. At midnight on May 12, Unit 2 will go out of service and turbine capacity will drop down to 1 small unit.

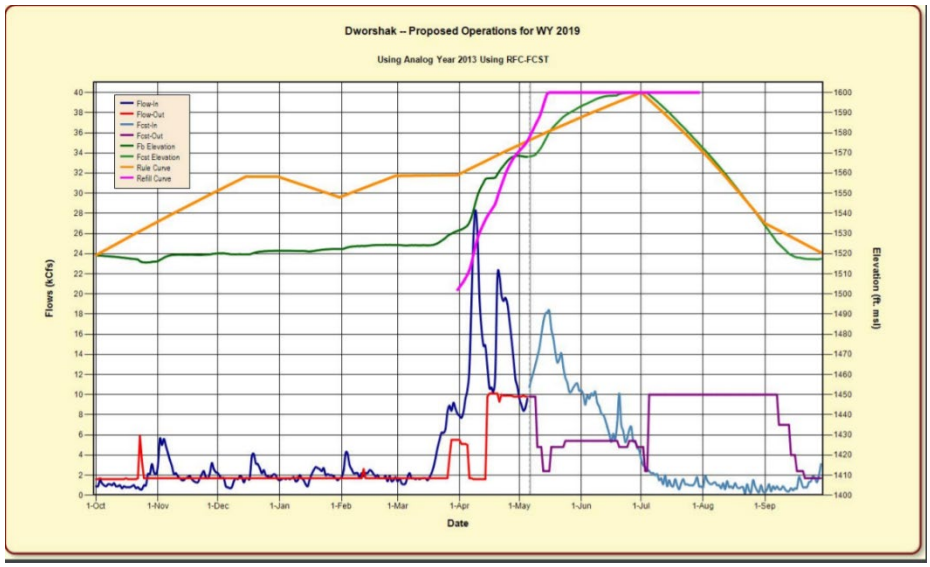
The RFC forecast shows inflows at 20-21 kcfs and a rise in the forebay elevation. In the Clearwater River above Orofino, flows are climbing. This water should help support out-migrating fish, said Roberts.

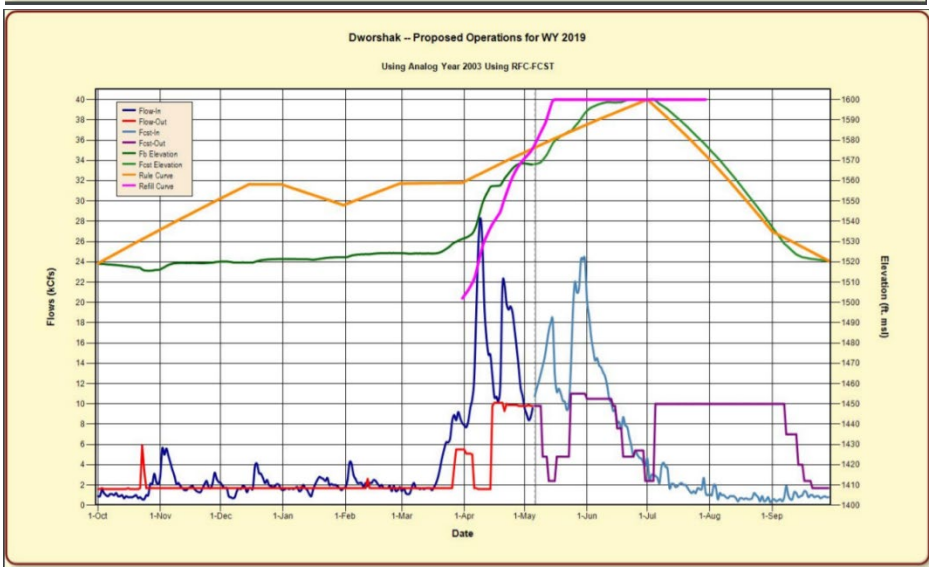
Snow is beginning to melt in the basin. A snow flight is scheduled for early June.

Roberts showed a graph of snowpack and two operational scenarios based on analog years 2003 and 2013 that had similar volume in early May with different runoff shape (see figures below). If runoff is similar to 2003 and there is a second inflow peak of 20 kcfs, discharges would need to be brought up substantially to 10 kcfs with possible spill to the 110% gas cap if necessary to not fill above the flood risk management elevation of 1,595 feet on May 31. If this looks likely, the Corps will check in with TMT at the next meeting on May 15.

Jay Hesse, Nez Perce Tribe, said that based on the planned outages, the Nez Perce hatchery moved up the release of sub-yearling fall Chinook from the Big Canyon Creek facility. It was originally scheduled for Friday but is happening today instead. Hesse was appreciative of TMT coordination, which helps with things like coordinating proper releases.


USACE - Walla Walla District -- Engineering Division - Hydrology Section
Dworshak Reservoir -- WY 2019 Snowpack Comparison Graph
Created on: 06-May-2019
Current as Pct. of Normal= 104%
Current as Pct. of Peak= 91%
Normal as Pct. of Peak= 88%
Pct. of Normal to reach Peak= 72%
Normal Peak Date= Apr - 6
Hist. Average
WY 2019
WY 2013
WY 2003
Snow Water Equivalent (SWE) (in.)
Date


Dworshak -- Proposed Operations for WY 2019
Using Analog Year 2013 Using RFC-FCST
Flow-In
Flow-Out
Fcst-In
Fcst-Out
Fb Elevation
Fcst Elevation
Rule Curve
Refill Curve
Flows (kCfs)
Elevation (ft. msl)
Date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Fcst-Out
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Fcst Elevation
Rule Curve
Refill Curve
Flows (kCfs)
Elevation (ft. msl)
Date

3. FOP Spring Spill – Julie Ammann, Corps, and Tony Norris, BPA

3a. FOP Spring Spill

Julie Ammann, Corps, reported on spring spill. The Corps is operating per the flex spill agreement. In the Snake River, TDG in project tailraces is 119-120% and there were a few exceedances of 121%. Yesterday, 3 of the 4 projects hit 120% TDG.

On the Lower Columbia, McNary Dam has been on minimum generation some hours and TDG has been 118-119% over the last week. John Day and Bonneville have been at 119-120%. TDG management at The Dalles is proving to be a challenge – over the past week, the Corps varied the spill cap between 40-49% of outflow and tailrace TDG ranged from 118%-122%.

Ammann spotlighted the relationship between The Dalles and John Day, which the Corps has noted need to be operated in tandem. John Day has been spilling at the spill cap of 168 kcfs (about 75% of outflow) and dropping to the performance standard for flex hours, which has maintained TDG in the John Day tailrace at the 120% gas cap. However, TDG in The Dalles tailrace was exceeding the gas cap, up to 122%, so the Corps has been lowering The Dalles spill cap over the past week. Yesterday, the spill cap was reduced to 40% and TDG came in at 120%; however, that could have been a result of lower TDG in the John Day tailrace yesterday, which came in at 119%.

Ammann noted that the challenge is there is often little to no degassing between the John Day tailrace and The Dalles forebay. Furthermore, TDG that passes through The Dalles powerhouse stays relatively unchanged. So if TDG in the John Day tailrace is at 120% and it stays relatively unchanged through The Dalles powerhouse, any additional TDG produced from spill at The Dalles could result in exceeding the gas cap in The Dalles tailrace.

Yesterday's average of 119% TDG at John Day indicates there may be a need to increase the John Day spill cap. However, the Corps wanted TMT to be aware that this action could result in having to reduce the spill cap at The Dalles below 40% in order to not exceed the gas cap. Theoretically, the worst case scenario may be that if The Dalles forebay is at or above 120% TDG, spill at The Dalles may need to be cut significantly, potentially down to zero, in order to not exceed 120% TDG in the tailrace.

With the forecast for rising temperatures over the next several days, it is unlikely the Corps will be able to hold John Day and The Dalles where they currently are without exceeding the gas cap at The Dalles, unless the wind picks up and contributes to degassing.

Ammann asked for feedback from salmon managers on the operation to increase the John Day spill cap to maintain 120% TDG in the tailrace, recognizing that would likely reduce The Dalles spill cap below 40%. Or is it a better balance for fish to maintain at least 40% spill at The Dalles, which may require reducing John Day spill below the gas cap.

TMT representatives weighed in.

Paul Wagner, NOAA, noted that The Dalles at times can be a TDG reducer. The only tool left to be considered, he noted, would be to change the pool elevation at Bonneville to a level where the spill deflectors are most effective at The Dalles. Ammann replied that there are no spill deflectors at The Dalles, most likely due to the downstream shelf. However, the Corps looked into the impacts of that operation and found that holding the Bonneville pool in the bottom 2 feet would reduce The Dalles tailwater elevation about 1 foot. The TDG production equation indicates this would not result in a noticeable decrease in TDG.

Jay Hesse, Nez Perce, raised some concerns about how that conclusion was reached, considering it's an output of SYSTDG which hasn't been very accurate in predicting gas production at The Dalles. He thinks this option should not be ruled out and supports trying this for a day or two to see what would happen and if it would work.

Ammann said that based on the data available, the Corps really does not think a 1-foot reduction in The Dalles tailwater would have an effect on TDG. She also reminded TMT that one of the pillars of the spill agreement is flexibility for power, and this would reduce that flexibility.

Tony Norris, BPA, said that due to local streamflows, it would not be a 1-to-1 change between the reduction in the Bonneville forebay and The Dalles tailwater. Norris also pointed out that lowering the tailwater may not have the same skimming effect as was seen in the past before the spill wall was added. Also, spilling outside the wall comes with effects as well.

Alexis Mills, Corps, added that at spillways with deflectors, the tailwater does significantly influence TDG; however, without deflectors, there isn't much of a relationship.

Wagner asked if the Corps has an estimate for how much John Day spill would need to be reduced to maintain The Dalles spill at 40% without exceeding the gas cap. Mills responded that, typically, a 5 kcfs reduction in spill at John Day results in about a 1% TDG reduction in the tailwater. If there is no degassing, this would also mean a 1% TDG reduction in The Dalles forebay.

Tom Lorz, Umatilla, said he was surprised that The Dalles spill cap was at 40%. He appreciated that the Corps is being proactive but thought they were being too conservative. His preference would be to keep The Dalles spill cap to at least 40% and manage the tailrace as close to 120% TDG as possible until the rain hits.

Ammann inquired if that means Lorz's recommendation is to manage The Dalles tailrace to 120% TDG with at least 40% spill, and if necessary to do that, reduce John Day below the gas

cap. Lorz agreed with that summary and said he's more concerned that The Dalles spill doesn't get much lower.

Ammann clarified that what she was hearing was not to go below 40% spill at The Dalles and if the Corps needs to adjust, to adjust at John Day. The spill caps may be fine at the moment, but if that is not the case in the future, the Corps will adjust John Day. Lorz said he would agree with that given current conditions; however, conditions can change and if that means John Day dropping to 35% spill, it would change his views.

Wagner also recommended not going below 40% spill at The Dalles.

Erick Van Dyke, OR, voiced concern about how the models were developed and the uncertainty created by using information that has not been shown to work over the last few weeks. He also noted that he would rather that actions be made to try to resolve this and that things be tried rather than TMT members providing reasons why operations will not work.

An FPC memo was released this week that evaluated the potential impact on juvenile passage through the powerhouse at each project (referred to as "PIT PH"). Russ Kiefer, ID, brought attention to Table 3 and Table 5 that indicate if spill is reduced at John Day by 10 kcfs, from 168 to 158, it would result in an increase in PITPH at John Day of 0.6%. An increase in spill at The Dalles from 40% to 43% would result in a 3% decrease in PITPH for steelhead and 4% decrease in PITPH for yearling Chinook. In other words, reducing spill at John Day by 10 kcfs and increasing spill by 3% at The Dalles would be a net benefit for fish by decreasing powerhouse passage at The Dalles by 3-4%, with only a 0.6% increase in powerhouse passage at John Day.

Ammann said that she appreciated the analysis in the memo and that it was helpful to have an idea of fish impacts to inform the decision. She noted that it is really hard to give specific rules of thumb that apply in all cases because so many things depend on variable environmental factors. She said the assumptions made in their analyses may or may not be what actually occurs, but the Corps could implement the 43% minimum spill level at The Dalles as Kiefer recommended if salmon managers land on that number.

Kiefer said he would like to try something along the lines of what was discussed. He would prefer not to wait another week to make a decision as this is a critical time for fish. The problem with an operation like this would be that it would not be possible to tell how much spill can be maintained at The Dalles. He has not had time to fully review the memo but said he likes the idea of 43% spill. He said he realizes this will not provide a lot of answers quickly.

Ammann clarified that the Corps cannot maintain prescribed operations at both projects. It would be the most helpful for the Corps to know if salmon managers want to maintain a minimum spill level at The Dalles, like 43%, and are willing to have John Day potentially below

the gas cap to get there, recognizing the minimal increase in powerhouse passage at John Day for greater fish benefits at The Dalles.

Baus noted that he keeps hearing "high spill" in conversation and it would be helpful to the Corps to know exactly what people consider "high spill." Specifically, he wondered what the number would be at John Day so the Corps can model accordingly.

Dave Swank, USFWS, said he is most comfortable with keeping operations as they currently are. The move to the hourly spill cap at The Dalles seems to be working, he said. He pointed out that the TDG daily average has been right around 120% and that the results have been good. He appreciated the heads up that the Corps may need to drop below 40% spill at The Dalles and that he would prefer not to go below 40%. If the spill cap drops below 40%, then TMT can adjust next week, he said. He recommends waiting to make an operational change because a reduction in spill at John Day guarantees a fish impact at John Day.

Ammann asked if Swank's recommendation is to keep John Day at the gas cap and cut back at The Dalles as necessary, then revisiting at next week's TMT. Swank agreed this was correct. Ammann reiterated that if there is climbing forebay TDG at The Dalles, the Corps may have to cut spill drastically, potentially to zero if necessary to not exceed the gas cap. Swank said he did not realize the numbers would be that drastic. While this was an extreme example, it made Swank think that some bounds would need to be set.

Sheri Sears, Colville, had no comment on the proposed operation.

Salmon managers, including Wagner, Swank, Kiefer, Lorz, and Charles Morrill, WA, would like to have more time to review the FPC memo. Morrill wondered if it would be possible to take today's discussion to FPC and see if they could provide additional information.

Van Dyke commented that he believes that today's discussion moves away from the flex spill agreement. Specifically the idea of meeting 120% TDG in the tailwater of each project is what he has issue with. Additionally, he noted that making adjustments to an upstream project that impacts a downstream project is a new paradigm that was not included in the agreement.

Ammann replied that the Corps is implementing the flex spill agreement and is trying to meet 120% TDG in all tailraces. She said that the Corps is seeing signs that it will be impossible for them to meet 120% in the tailrace at both John Day and The Dalles while maintaining 40% spill at The Dalles, which was a lower bound previously recommended by TMT. There's a potential that the Corps won't be able to meet the gas cap at both projects and maintain at least 40% spill at The Dalles under all conditions, she noted. When this occurs, the only options are to decrease spill at either John Day or The Dalles.

From a TDG management perspective, the Corps feels the most prudent operation would be to balance spill between the two projects and reduce John Day as necessary to keep The Dalles to at least 40% spill without exceeding the gas cap.

Wagner noted that there has been consensus between salmon managers that 40% spill at The Dalles be a lower bound. He wondered if this was enough information for now to make a decision.

Van Dyke would prefer to have each project operated to meet 120% TDG in the tailwater and for all options for managing TDG in The Dalles tailrace left on the table. He stressed a wider view that is not being embraced and that providing the worst case scenario is an alarm for folks in ways that may not be necessary.

As for this week's decision, Swank noted that there has to be a minimum spill limit at The Dalles to protect fish. Ammann asked what that threshold is – 35%? 40%? Lorz said that, like the Corps, a lot of factors go into a decision like this that makes it hard to give a concrete number. Kiefer said that his hard stop is 40% and that the best thing for fish would be to operate the projects together, spilling similarly at both projects and meeting 120% TDG in The Dalles tailrace.

Considering the lack of consensus among salmon managers, TMT will reconvene this Friday, May 10 at 10am, to look at the latest information and to allow folks time to review the FPC memo and come up with a recommendation.

Absent a consensus recommendation from the salmon managers, the Corps will continue to operate both John Day and The Dalles to the gas cap, which may require dropping The Dalles spill below 40%.

NOAA, Idaho, and Washington objected to going below 40% spill at The Dalles. Wagner will elevate the issue to RIOG on behalf of NOAA.

3b. Flexible Spill Implementation

Tony Norris, BPA, reported that BPA is flexing at all projects due to reduced flows.

4. Libby Sturgeon Pulse – Doug Baus, Corps

The SOR for the Libby Sturgeon Pulse will be on the agenda for next week and TMT members will be polled on the operation. Baus asked that TMT members who won't be present at the meeting to please review the SOR and contact him with their response.

5. Other

Paul Wagner, NOAA, noted that due to issues with the adult count contract earlier this year, the count data have been delayed. Currently fish counts are taking 3-5 days to post to the website. He asked if anything could be done to get the counts posted sooner, especially at Little Goose where there have been problems in the past with adult delay. Ann Setter, Corps Walla Walla, reported that the contractor is working as fast as possible and there is a chance that counts could return to normal as early as the end of this week or next week.

6. Next TMT

The next meeting will be a call this Friday, May 10 at 10 a.m. Meeting information is available on the TMT website.

7. Today's Attendees:

Agency	TMT Representative
Army Corps of Engineers	Doug Baus (Chair), Julie Ammann, Lisa Wright
Bonneville Power Administration	Tony Norris
Bureau of Reclamation	Joel Fenolio, Chris Runyan
NOAA Fisheries	Paul Wagner, Claire McGrath
US Fish & Wildlife Service	Dave Swank
Washington	Charles Morrill
Oregon	Erick Van Dyke
Idaho	Russ Kiefer
Montana	N/A
Nez Perce Tribe	Jay Hesse
Umatilla Tribe/CRITFC	Tom Lorz
Colville Tribe	Sheri Sears
Warm Springs Tribe	N/A
Kootenai Tribe	N/A
Spokane Tribe	N/A

Other Attendees (non-TMT members):

Army Corps of Engineers – Steve Hall, Aaron Marshall, Alexis Mills, Catherine Dudgeon, Alfredo Rodriguez, Heather Baxter, Jon Roberts
DS Consulting – Emily Stranz (Facilitator), Colby Mills
FLUX Resources – Melissa Haskin (Note taker)
Oregon DEQ – Paula Calvert